Introduction

We think we hold it within us, this place we call Pigeon River Country. But when we stand there again what is happening now does not translate to memories. And when this is over, the next time will be the only one. The moon, the birds, the air, the wind are never in the same place, providing the same songs, feeling just like this, moving quite this way. And the clouds move on.

Yet many things about the Pigeon River Country can be written down, remembered, related. This book is about what can be told and what can be evoked by this journey.

The easiest way to talk about the Lower Peninsula of Michigan is to show the palm of our right hand. There it is, thumb and all. The lower half is civilization as most Americans know it. The upper half consists of stretches of woodland, hills, and cool temperatures. Most people see only the edges of this world as they travel on highways from town to town or take a back road to some dwelling in a clearing. There are many clearings—and more every day. When we look for the forest, we are looking for places where there are few people or dwellings. As we gain familiarity with the woods, we think even the cabin is separate from the real forest.

Appreciation of these remote places is like a finely honed, double-edged sword. The more joy we find the more sadness lurks over the chance that somebody will ruin it. When my wife and I moved to northern Michigan, there were wild raspberries across the dirt road in a sunny patch about 50 feet long. Soon an enormous resort home was built on the property. The owners, who lived in southern Michigan, arrived to experience the woods and promptly uprooted every wild berry bush because, we were told, they harbor bugs. After half a dozen years and a dozen visits, they put

the house up for sale, then dispatched a crew of men to cut down most of the vegetation, including about one hundred trees, because the house was cold. On what I call my jogging path is an ancient stump that has been weathered into what looks like a cathedral. Sometimes I ignore that stump because I don't want to be disappointed if someone breaks it apart on a whim. What is so difficult about these things is that one edge of the sword brings enormous fulfillment, frees our spirit, helps us laugh, and makes us vulnerable to hurt from the other, mean-spirited side. It makes one philosophical as they say. For, if we watch these things and remain clear about them, what seems to be happening is that we grow and advance from these experiences to somewhat more admirable ground. That is part of what the Pigeon River story is about. It is tied up with oil and gas development, with logging, with the passenger pigeon. All of these parts of the story have an edge of poignancy. Yet as we tell them they add to our human experience, making us wiser in dealing with these difficult decisions of life.

North of Bay City on I-75, the traveler crosses the boundary between two major ecological zones that traverse North America, Europe, and Asia. The line runs east-west across Michigan just below the Thumb. To the south is the temperate zone, with largely agricultural soil, broad-leaved trees, and 75 percent of Michigan's population. To the north lie the conifer and northern hardwood forests.

On our right palm, the line runs along the base of the fingers. Ninety miles north, between the two knuckles of the middle finger, is the Pigeon River Country. It's about 12 miles wide and 20 miles long, half the size of New York City and one-third the size of Los Angeles. Yet it is the largest contiguous block of undeveloped state land in Michigan's Lower Peninsula. Until recently, it was the home of the only substantial wild elk herd east of the Mississippi.

What we see traveling north is not wilderness. There are wide stretches of scrubby jack pines. The other pines and the broad-leaved trees are thin and short compared with the forests of the East and West. Northern Michigan is cutover, burned-over land dotted with stumps that, even when hidden in 100 years of new growth, dwarf their surroundings with the idea of what the great forest was a century ago. Even the Pigeon River Country is not technically a wilderness but a managed forest in which logging, hunting, camping, trail skiing, and horseback riding occur.

Yet this forest is special in a state known for its natural resources. A handful of people inspired Michigan's longest, most visible environmental controversy there, involving half a dozen oil and gas corporations, all of

the state's major environmental organizations, the state's largest hunting organization, the United Auto Workers, the Michigan court system, the state legislature, and the people who talked about the oil controversy at home, wrote letters to newspapers, and worried about how it would all turn out. In one sense, it turned out badly, the handful finally standing alone as all other parties to the dispute accommodated a compromise that allowed oil and gas drilling under apparently controlled conditions. In another sense, the game changed before it ended. It grew subtle, low key. Somehow the Pigeon River Country became central in the lingering environmental issues of the 1980s. The spill of detritus from behind a dam into the Pigeon River led the state into its first effective efforts to control how dams affect the quality of clear northern streams. Shell Oil Company, after quietly testing a new procedure in several states, chose to make public its new technology for reducing brine pollution in the Pigeon River Country. The forest's advisory council was the state's pioneering experiment in involving people of opposing points of view in the long-term management of its natural resources.

When the great visionary P. S. Lovejoy began Michigan's program to preserve land by using it wisely, he identified the vast acreage around the Pigeon River as the "Big Wild," a place where the forest and rivers would create their own environment. When the controversy over oil and gas development arose 50 years later, Michigan's natural resources routine was chaotic, with divisions of the Department of Conservation sometimes working at cross-purposes or in direct conflict. What emerged was the first sustained policy reflecting the public interest in preserving, as opposed to simply using, land. The state bureaucracy began to ask in a systematic way during the Pigeon River controversy what goals are foremost. And it began to listen in a systematic way to the public. Officials at the highest levels began to make resource decisions based on what they were learning from the Pigeon River situation. Other states looked to the Pigeon River experience for guidance in answering their own emerging questions about resource management.

When Joseph Sax, a University of Michigan (UM) environmental law professor, conducted a lecture tour in Japan during the height of the controversy, he found people there talking about the Pigeon River Country. "It is precisely the kind of litigation that people in other industrialized countries, facing very similar problems to ours, desperately need to get under way," he said.

As the controversy drew attention in the 1970s, more and more people visited this forest, the value of which, ironically, lies chiefly in its remote-

ness. It is inhabited by black bear and bobcat, as well as elk, simply because it is isolated enough for them to live there. Backpackers have told the Pigeon River forester that the 70-mile High Country Pathway, which passes through the forest, is the best hiking trail they have experienced in the Wisconsin, Minnesota, and Michigan area. It is the only Great Lakes hiking trail known to have three large wildlife species: bear, elk, and whitetailed deer. More than two hundred species of birds populate the forest, including the bald eagle, great blue heron, and pileated woodpecker.

Recreation facilities in a state forest, compared with a park, are purposefully simple and basic. In 2006, they included seven campgrounds and two group horse camps, 60 miles of pathways, 27 miles of horse trails, and several scenic attractions, including the Witness Tree, Inspiration Point, and the sinkhole lakes. It is a state objective that recreation opportunities in the forest be in keeping with the quiet, peaceful, and wild character of the area. Off-road vehicles (ORVs) are banned in the forest except on some county roads in Montmorency and Cheboygan counties, and there are no groomed snowmobile trails.

One way to get to the Pigeon River Country is to exit I-75 at Vanderbilt and follow Sturgeon Valley Road about 10 miles east to the forest. The lower half is in the northeastern corner of Otsego County and the upper half in southern Cheboygan County. Two thin strips on the eastern border extend into Montmorency County.

Another way to get there is to start from someplace else and maybe not physically get there at all. When we pause alone in the woods, any woods, what strikes us is that we have been going at too high a speed to participate in what is around us. It's not just seeing, smelling, and listening that we have to adjust but the way we feel. The Chesapeake and Ohio Canal runs along the Potomac from the north to Georgetown in Washington, DC. Joggers trot along the mule path next to the canal while, above, Washington rush hour hazes the joggers' air. Two fish splash out of the canal onto a spillway and disappear as the water runs on a slope down into the trees and undergrowth. Two joggers thump past across a footbridge over the spillway, not noticing. Off the trail, in the trees and undergrowth, the water plummets suddenly into a channel far below as though the brown canal water quickens in anticipation of its last few miles across a foul continent to the sea. It's something one may not notice without a Pigeon River experience.

Pigeon River Country is at the other end of water's cycle, only a few miles from the watershed of north-flowing and south-flowing rivers of northern lower Michigan. Water that recently was rain or snow begins its long journey from the three rivers that course through the Pigeon River Country north to the Great Lakes and eventually to the sea. They are the Sturgeon River to the west, the Pigeon River in the center, and the Black River to the east.

Northern lower Michigan is part of an ancient sea through which primeval organisms sank and compressed into hydrocarbons. The site of the Pigeon River Country later spent millions of years under glaciers that carved out the Great Lakes. After the latest glacial waters retreated, native people lived in the region for ten thousand years. They hunted along waterways like the Pigeon, Black, and Sturgeon, which flow down the Port Huron moraine to the bed of a glacial lake. When Europeans arrived from the densely populated and heavily timbered eastern hemisphere, the area was inhabited by Indians, wolves, bear, deer, bison, elk, moose, and caribou. The only ones to survive were deer, some bear, and a few Indians. The new people leveled all of Michigan's giant white and red pines and virgin hardwoods in little more than 50 years. The name Pigeon River comes from a creature believed to have been the most numerous of its kind on earth. What happened to it is a story of America, northern Michigan, and the vulnerability of natural things to certain human attitudes.

About the middle of May, 1850, while in the fur trade, I was camping on the head waters of the Manistee River in Michigan. One morning on leaving my wigwam, I was startled by hearing a gurgling, rumbling sound, as though an army of horses laden with sleigh bells was advancing through the deep forest. While I gazed in wonder and astonishment, I beheld moving toward me in an unbroken front millions of pigeons. They passed like a cloud through the branches of the high trees, through the underbrush and over the ground. Statue-like I stood, half-concealed by cedar boughs. They fluttered all about me lighting on my head and shoulders. (Chief Simon Pokagon, a Potawatomi and last chief of the Pokagon band in Michigan)

Surveyor William Burt passed that same year a little northeast on the same ridge, placing stakes to designate imaginary lines. The imaginary lines are still there, on maps and documents you might find anywhere; the pigeons are not.

When Europeans arrived to settle America, they observed flocks of a bird in such numbers they darkened the sun. The species was later estimated to have comprised one-fourth to nearly one-half of all the birds in North America. The bird was a wild pigeon, a type of turtle dove that looked like the mourning dove except it had twelve tail feathers instead of the mourning dove's 14 and was larger. Tribes of Algonquian linguistic stock, including those in what is now Michigan, generally called the bird variations of *O-mi-mi* (with the second *mi* pronounced abruptly), expressing a sound the bird made. Indians in Massachusetts called the bird wuskowhan, meaning wanderer. Scientists eventually agreed on a name, *Ectopistes migratorius*; both words indicate that the bird was a traveler. We call it the passenger pigeon, a name that reflects both its wandering nature and how it sounded: *passenger* is an ancient French and English word related to *passage* and meaning traveler; *pigeon* is of Norman origin from the Latin *pipio*, meaning a peeping, nestling bird.

The nesting area of the passenger pigeon ranged from New England west through the northern Lower Peninsula of Michigan to Wisconsin and southeast to Kentucky. The Pigeon River was named for the passenger pigeon, which used the area for nesting and feeding. George King, a guide and trapper, had "for many years lived in the section that formerly was the great pigeon nesting and feeding ground of Northern Michigan," W. B. Mershon wrote in his 1907 book *The Passenger Pigeon*. At the time, King was living in what is now the Blue Lakes area on the east side of the state forest.

When passenger pigeons came to northern Michigan, they generally nested along a stream, protected by valleys against the wind. They preferred cedar stands, common in the wetlands along the Sturgeon, Pigeon, and Black rivers, usually nesting near beech, which was one of the trees of the mature forest. The birds would nest in colonies up to two or three miles wide and perhaps 20 or even 40 miles long. Sometimes there were 90 nests in a single tree. Yet they would leave avenues one to five miles wide within their nesting range where there were no birds at all. They would remain in the nesting area for about 30 days, including three days building the nest and laying one egg for each pair of pigeons, 13 days incubation, and 14 days feeding the young.

For eight days after pecking out of its white egg, the young pigeon would be covered by a parent's body, then covered only during the ninth and tenth nights, then abandoned on the fourteenth day. The squab, a mass of fat, would sit crying in the nest for a day or two then flutter to the ground. Within three or four days, it could fly well enough to avoid capture, and within a week most of its fat would disappear.

When the Seneca took squabs, they said prayers and left gifts for the older pigeons, perhaps beads and jewelry in a brass kettle. The Hurons

believed that the souls of the dead eventually changed into passenger pigeons and were reunited with the living when the birds were cooked and eaten.

According to Chief Simon Pokagon, "A pigeon nesting was always a great source of revenue to our people. Whole tribes would wigwam in the brooding places. They seldom killed the old birds, but made great preparation to secure their young, out of which [we] made squab butter and smoked and dried them by thousands for future use. Yet, under our manner of securing them, they continued to increase."

The manner in which Europeans settled the eastern United States did not increase the population of birds. John James Audubon described a visit to a roost on the Green River in Kentucky: "A great number of persons with horses and wagons, guns and ammunition had already established encampments. Suddenly there was a general cry of 'Here they come!' Thousands were soon knocked down by men with poles. The birds continued to pour in. Fires were lighted, and a magnificent and almost terrifying sight presented itself. The pigeons, arriving by thousands, alighted everywhere, one above another, until solid masses as large as hogsheads were formed on the branches. Here and there the perches gave way under the weight with a crash and, falling to the ground, destroyed hundreds of birds beneath."

At sunrise the next day, Audubon wrote, "the authors of all this devastation began their entry amongst the dead, the dying and the mangled. The pigeons were piled in heaps, until each had as many as he could possibly dispose of, when the hogs were let loose to feed on the remainder."

In about 1805, millions of squabs in a northeastern Pennsylvania nesting were collected for their fat, which was shipped in barrels down the Susquehanna River. Sometimes the oil was used as soap stock. Pigeon feathers were used for bedding. Sometimes the birds were killed for the feathers alone such as one incident on the shore of Lake Erie in New York in which one family in 1822 killed 4,000 pigeons with poles in one day and saved only the feathers.

The trade in passenger pigeons grew massive after railroads began to provide rapid transportation to city markets. In 1878, the following advertisement, typical of those in the trade journals of the time, appeared in the *Chicago Field*.

Wild Pigeons.—I leave for the Petoskey nesting, April 10th, and by the 15th, can fill all orders for birds.—E.T. Martin, 79 Clark St., Chicago.

The Petoskey nesting of 1878 stretched in a three- to 10-mile-wide band some 40 miles long through what is now Pigeon River Country. Birds from that great northern Michigan nesting were shipped by rail, by steamer from Petoskey, Cheboygan, Cross Village, and other lake ports, and by wagon. Martin said the official figures from Petoskey and Boyne Falls showed birds shipped dead or alive by express and boat to be 1.1 million that year. He assumed that an additional half a million died without being shipped. A million is an extremely large number, beyond comprehension in any real sense. At the rate of one bird per second, it would take 12 days without sleep to count one million of them and 31 years—without a second's pause—to count one billion. The passenger pigeon at the time North America was discovered numbered an estimated three to five billion birds.

Martin claimed that pigeons were so abundant during the 1876 and 1878 nestings in Michigan that the shipment of dead birds would not pay the cost of the barrels and ice because of the glut on the market. What kept the netters operating, he said, was the demand for live birds for trapshooting.

Live pigeons were placed in crates. Care was taken to keep them alive and in condition for shooting. Still, many died from the confinement or lack of water. One observer complained that these wild birds arrived with their feathers soiled with excrement and stuck together to such an extent that they could not fly.

Trapshooting began in the United States after 1825 and was widely popular by midcentury. Among the various devices used was a spring that propelled the pigeon into the air. If the bird could or would not fly, there were rules to govern the scoring. Some clubs used a mechanical cat to try to frighten the pigeon into flight. Those birds that managed to escape the trapshooters often fell to the guns of the men and boys who ringed the match area. Public sentiment against trapshooting grew, but the custom did not disappear until passenger pigeons were no longer obtainable. As late as 1891, there was an inquiry from Dayton, Ohio, looking for 2,000 wild pigeons for a tournament.

Although there is no way to determine precisely when the last wild pigeon was shot or seen, A.W. Schorger writes in *The Passenger Pigeon* (1955) that "the year 1900 may be considered as marking the end." At the time, no one knew for sure whether any pigeons still existed in the wild. A committee reporting on a game bill to the state legislature of Ohio in 1857 had declared, "The Passenger Pigeon needs no protection. Wonderfully prolific, having the vast forests of the North as its breeding grounds, travelling hundreds of miles in search of food, it is here to-day, and elsewhere

to-morrow, and no ordinary destruction can lessen them or be missed from the myriads that are yearly produced." The American Ornithologists' Union, meeting in New York in 1909, made plans to search for passenger pigeons and to offer awards totaling \$1,220 for the discovery of a nest or colony. None was ever found.

We treat our domestic chickens worse than trapshooters did the pigeon, for at least the pigeon was not caged its entire life nor forced to produce eggs continuously through the use of artificial light and chemicals. And the pigeon at least had a theoretical chance of escape. Nor have we ceased threatening to eliminate even well-known species from the planet. The Alaskan king crab, found only in seas along the south-end Aleutian coastlines, was once believed to be an inexhaustible, renewable resource. In 1983, the Alaska Department of Fish and Game ordered the first total shutdown of the two prime king crab fishing grounds off Kodiak Island in Bristol Bay because of a disastrous decline in the crab species that some experts said might be irreversible. One of the reasons given for the decline was that the year before more than one and a half million steel and mesh crab traps weighing 500 pounds each were dropped onto the seabed where crabs congregate, perhaps crushing tens of thousands of them. The fate of the passenger pigeon seems to be one story among many.

It is a particular irony that the Pigeon River Country derived its name from the passenger pigeon for the forest became the focus of efforts to protect fragile natural phenomena from the pressures of civilization, including fossil fuel exploitation. The great power of the Pigeon River Country lies in its inaccessibility to humans. In deep woods, we humans are mostly trail people. We can mosey along a path with some confidence; when it divides, unless the choices are clearly marked, a bit of uneasiness creeps in. When there is no trail at all, anxiety sets in born of centuries of inexperience in the woods.

One of the more instructive choices we make is to turn back before venturing far into the woods at night without light. No matter how comfortable or satisfying a woods may be to us by day or in the rain or even on snowshoes or skis by moonlight, there is a point in the dark when we come to terms with the limits of ourselves as human beings. There are things out there we cannot see; we turn back.

When people visit the woods from the city, they often want to know if there are any snakes in the area before they will head out onto a trail. The concern about harmful creatures is a sort of pleasant affirmation that there are, even in the nuclear age, fundamental strengths that reside outside the control of humans. At the same time, we have a deep sense of the lack of hostility in nature; what holds no particular malice toward us is nonetheless a source of fear to us.

One of the great values in large forests such as the Pigeon is that they stir deep questions within us. Such experiences affect us in ways we scarcely understand. They are surely central to the powerful attraction that outdoor activities hold for sportsmen. On the one hand, such purposeful activity in the wild activates ancient human abilities: to move gracefully, see and hear clearly, and respond quickly. On the other hand, the serious sportsman shares an intimacy with his or her prey that no customer of marketed meats can experience. It is heartening to observe that increasing numbers of people recognize these deep and powerful influences of natural areas and that many participate in them whether or not they are involved in game sport.

Northern lower Michigan is a place where you might look at a pond near the road on your way someplace and see a fawn, its muzzle in the water, eating young shoots just below the surface. Or you might observe a disjointed, snakelike creature with a large head that, as you get closer, turns out to be a duck and six ducklings walking in a row out of the tall grass onto the roadway. The fawn and ducks live their total existence outside the realm of human plans, controls, or even awareness. It gives pause to people who have to shop and make mortgage payments. It draws us into what might be called contemplative recreation, an activity that is not exactly hiking or skiing or tracking or photography, though it may involve doing those or similar things along with it. Frederick Law Olmsted said that most of our activities involve getting tasks done and natural scenery offers us the rare opportunity to engage instead in thoughts freed from duty and achievement, what he called invoking the contemplative faculty.

There is some awkwardness in our society about any activity that does not seem to have a purpose. We consider it lazy. Thus, terms like *nature lover* connote someone who is not quite connected to what we consider reality. It surely accounts for the fact that men seem to be more comfortable with being able to say they do something outdoors than they are with actually being out there. It is a curious situation that watching all manner of imaginary material on television is looked on as a more realistic pursuit than looking outdoors at plant and animal life interacting in all its complex forms.

Yet there is clearly an increasing interest in contemplative recreation not only among hikers, cross-country skiers, and mountain bikers. Among those known in our society as sportsmen, there seems to be an increasing emphasis on the value in simply being outdoors. People who have a refined sense of balance in nature and are hunters do not fit a stereotype any more than others do. They are often the people most sensitive to the way human beings have degraded the environment of the animal. Society's fear of wolves, for example, involves how all of us relate to natural things. Many who hunt in northern Michigan have a genuine concern for restoring the balance lost when wolves were no longer present to thin less healthy deer from the herd. Such people have no easy answers. They tend to respect the animals they kill, to know more about them than others do. They disdain hunters who drink, get lost, disturb the environment, and show insensitivity to the serious pursuit they undertake. Those who consider themselves quality hunters conduct themselves in a meat-eating society in the most honorable way they know. They are not necessarily proud of killing their prey, but they are proud of taking the animal on its own ground, of being mentally and physically able to pursue the animal in its own environment, and of the fact that they deal with the problem at close range, not from an academic distance.

The loss of species is of complex cause, involving the nature of what Western peoples have regarded as civilization. Western civilization defines freedom, in one sense, according to discrete objects known as personal property. You draw lines around these things and yourself; you are free to do what you want, within certain limits, inside the lines. When we plan and zone for commercial or residential development, the integrity of ecological systems is about the last thing we consider. Even natural areas are treated primarily as places to be used by humans not as places where various life forms depend on each other. The Pigeon River controversy raised an issue rarely considered by the public, the integrity of habitat for the whole range of indigenous flora and fauna. In the ordinary course of events, such things are almost never considered. Whoever owns the property has the right to chop down the trees. The concept baffled the Indian, who felt that we are all part of everything together.

In 1785 Congress imposed a grid system on the western lands, and by 1796 townships had been standardized into six-by-six-mile squares. Each of the 36 sections (square miles) in a township contains 640 acres.

A portion of the Pigeon River Country lies in what is known as Corwith Township. The first known settler in the township built a small house in 1873 southwest of what is now Vanderbilt, a dozen miles west of the Pigeon River. Most of the land in the area was granted by the U.S. government under homesteading provisions. Civil War veterans could get 160

acres, nonveterans 80 acres. Settlers had to live on their free land for five years (minus time in military service) and improve it. That usually meant clearing the virgin timber. The railroads received six sections for every mile of track built. Lewis Perry of Vanderbilt, who studied census records of the area, said, "The railroads were sacred cows. They had to have railroads; so they gave them anything. The railroads, in turn, would sell the timber rights."

Lumbermen came to the Pigeon River area in 1880. In 10 years, the white and red pine were gone. Over the next 25 years, the hardwoods were cut and shipped away by rail. Branches left behind dried into tinder. Fires consumed as much of Michigan's forest as the loggers cut. In 1911, it was so smoky during a fire that people around the Pigeon River Country could not see the sun for days. In those later years, lumber mills burned and were not replaced; there wasn't enough timber left to harvest. Logan, a thriving mill town of 350 when James G. Smith worked at Cornwell Mill on the Pigeon in 1909, disappeared. So did Bungtown and Trowbridge. There were no elk when James Smith worked in the logging camp. Elk in the eastern United States had disappeared in the previous century.

As Berdine Yuill, son of the Yuill lumbering family, describes the logging in Pigeon River Country, "In those days [1880] there was an abundance of wild animals . . . and a vast amount of timber. My family come, and they started in the logging business. . . . They hauled the logs to a mill in Logan. They cut the pine. Then the hardwood was shipped to Bay City," where it was made into flooring. "They . . . lumbered all these vast acreages. In time to come, the mill burned. After the land was lumbered, a big fire went through. It swept the country. I remember that. It got so smoky you couldn't see. After that, people commenced to farm this land. Then it grew up to second growth."

Farming on the sandy soils of the north woods proved to be an inappropriate use of the land, particularly in this short growing season. Farms failed; many properties changed hands 10 or 12 times. "People started leaving this area in the 1910s and it didn't start building up again until 1945," Lewis Perry said. During those years, the Pigeon River Country grew more isolated. The lumber industry pulled up its rails and ties and took them west. The massive fires were brought under control in the 1920s. The forest regenerated.

In April 1919 the state of Michigan designated 6,468 acres east of Vanderbilt in the northeast corner of Otsego County as the Pigeon River State Forest. The land had been abandoned by people who couldn't pay the taxes. The resident custodian lived in a farmhouse. In 1973, a network of adjacent state lands was merged into what is now the Pigeon River Country Management Unit. Some 65 percent of the property had been purchased with state hunting license money. About 10 percent of the land within the boundaries remains privately owned. At the end of 1982, some 6,440 acres of what had been a McLouth Steel Corporation private camp along the Sturgeon River, known as Green Timbers, was added to the forest, purchased with oil royalties. In 1990, the 2,608-acre Blue Lakes Ranch property along the east side of Meridian Road added three lakes and more Black River frontage to the forest via a \$1.9 million purchase financed by oil royalties, which have been put into a Natural Resources Trust Fund for land purchase and conservation. Several smaller purchases have also occurred.

At 105,048 acres, or 164 square miles, including the in-holdings, the Pigeon River Country Management Unit is the largest, most solidly owned, single block of wild land in the Lower Peninsula, although it represents less than three percent of Michigan's state forest lands. Michigan has the largest state forest system in the country. It was administered as "state forests" until 1979, then "forest areas," and now "management units." From the southeast Michigan metropolitan area, it takes about four hours to drive to the Pigeon River Country.

Michigan has been selling leases for oil and mineral rights on state lands since 1921. Much of the land was never drilled, so the state reaped a profit with no appreciable loss. In 1968, the Department of Natural Resources (DNR) sold 10-year leases for some half a million acres, including the Pigeon River Country. The sale brought a million dollars into the general fund. By 1969, it was evident that a vast oil and gas reef, the Salina-Niagaran, ran for 200 miles in a northeasterly direction from Manistee on Lake Michigan to Rogers City on Lake Huron. The reef appeared to pass under the Pigeon River Country. Companies that held leases began to apply to the DNR for permits to drill. In June 1970, oil was discovered at the edge of the Black River Swamp in the heart of Pigeon River Country. Nineteen wells were drilled. Three oil pools were discovered in a cluster in a remote part of the southern forest. Five oil wells and a gas well were in operation by the time a temporary ban against further activity went into effect. It was to be a decade before major production resumed.

As a result of the controversy, an advisory council of citizens was established and given an official role in setting forest policy. Many people opposed to hydrocarbon development were appointed to the council. They were ultimately unable to prevent drilling but at least sat down with representatives of other points of view, including members of the hydro-

carbon industry, in an effort to make the best decisions possible. It is an indication that the days of confrontation are giving way to a more complex pattern of interaction and cooperation.

A high percentage of visitors to the Pigeon River Country come from the Detroit metropolitan area of Wayne, Oakland, and Macomb counties, as many from each as from Otsego County, and more than from Cheboygan County, where the northern half of the forest is located. About half the visitors consider themselves to be there chiefly to hunt and fish. Other leading activities described by the visitors themselves are hiking, backpacking, mushrooming, camping, cross-country skiing, horseback riding, bicycling, and looking at scenery. Almost every activity described by visitors appears to involve contemplative recreation in which the quality of the forest as a place of solitude and scenic beauty is critical. Contemplative recreation also occurs in the activities mentioned by visitors in a 1982 survey: viewing wildlife, sightseeing, color tours, photography, studying winter ecology, picnicking, loafing, relaxing, enjoying the out-of-doors, walking, running, showshoeing, canoeing, biking, swimming, blueberry picking, and survival training.

More than 6,100 campers were registering yearly at the seven campgrounds. The \$10 fee (raised to \$15 in 2007) had been generating about \$42,000 a year. Commercial timber sales for one recent year brought in more than 11 times that amount with the sale of more than 13,000 cords on more than 900 acres. Most of the forest is visible only on foot, and much of it is unmarked, thick with growth, and therefore inaccessible to most visitors. In such a place, people stick to trails.

A path in the woods has a certain tenacity. It's as if the bushes yield a place for people to pass through. For their part, people seem to appreciate a way through that does not require close attention to what you are stepping on and where you are going. A path has a roundness to it that is comforting, a U-shape that connects you ever so quietly with people who have passed through before you. An unused path flattens out, hides under occasional bracken fern and wild strawberry vines, inviting you to places where people have not participated in the forest's activities for a long while. Such a path fades away here and there, hinting that it may suddenly leave you where your ability to read is irrelevant and your experience as a social being useless.

When you walk in most forested areas of lower Michigan, the rustle and quiet are continually pierced by motors, tire drone, human sounds. Along much of the Black River the most prominent sound is the river and the

wind. The mainstream of the Black runs thigh to waist deep from spring-fed creeks east of Gaylord through a pond at Saunders Dam; on through the remote Black River Swamp; past the Pinnacle, Old Vanderbilt Road, McKinnon's Bend, Tin Shanty Bridge, and Blue Lakes Ranch; and finally winding through private holdings such as the Black River Ranch. Then it slows and divides into impenetrable channels a few feet deep called The Spreads. It eventually deepens and reaches Black Lake half a dozen miles from Lake Huron. The Black River is joined along its route by Tubbs Creek, Hardwood Creek, and McMasters Creek from within the forest boundary and Canada Creek, Tomahawk Creek, and others outside the boundary, including Milligan Creek, which flows north from Duby Lake in the forest but reaches the Black some four miles north of the boundary.

The Pigeon River flows within two miles of the Black. Like the Black, it arises from wetlands between the rolling hills east of Gaylord and travels about 42 stream miles to Mullett Lake. There are an additional 38 miles of tributaries. The velocity of the current is moderate, and most of the mainstream is shallow enough for wading, though too cold for most bathers. More than a third of the Pigeon flows through state land and, with its designation as a wild river, is protected from development by a vegetative corridor up to 400 feet wide.

The Pigeon enters the southwestern forest through land that for many years belonged to Dr. Sibley Hoobler, who turned it over to the Nature Conservancy in the late 1970s and eventually deeded it to Michigan as part of the Pigeon River Country. The wetlands around the Pigeon in this section are a fen, or marsh, populated by century-old virgin cedar and swamp conifers. In the bog areas, leatherleaf, pitcher plants, and sedges grow in the acidic standing water. The Pigeon continues north through private land and again enters forest boundaries at Sturgeon Valley Road, where it flows under a bridge and past the Pigeon Bridge Campground.

Along the next dozen miles inside the forest boundaries, the Pigeon passes several facilities, including three more campgrounds, the headquarters complex, and a monument to P. S. Lovejoy. Like most cultural points of interest in the forest, the Lovejoy monument is so understated that it is scarcely visible from the road that passes right by it.

With the acquisition of the Green Timbers property in 1982, the forest boundaries came to include the third north-flowing river, the Sturgeon. The Sturgeon River is one of the fastest-running rivers in northern Michigan, faster than the famed mainstream Au Sable. Many portions of the Sturgeon are more than six feet deep. North of the forest, the Sturgeon contains rapids in at least two places.

The Sturgeon has been seen over the years by more travelers than either the Pigeon or the Black because it winds in and out near Wolverine next to the old U.S. 27 highway. U.S. 27 was the main north-south route through Michigan until the construction of the interstate highway, I-75, in the late 1950s. Old 27 is now a quiet, paved, two-lane alternative to expressway driving. The Sturgeon flows literally a few feet away, looking like a typical clear, northern stream. Actually, in the 1980s trout fishermen undertook a \$30,000 project to clean excess sand out of the Sturgeon in order to restore the gravel bottom necessary for trout spawning. The sand eroded into the river from bridges and other land development. In cooperation with the Michigan Department of Natural Resources, which undertook measures to reduce erosion flowing into the river, the Michigan members of Trout Unlimited arranged to have large pits dug in the stream bed to slow down the water and capture the sand. At the height of the project, the pits had to be emptied every two weeks. The Michigan Youth Corps and the Soil Conservation District of Otsego County helped with the project, which is believed to have been the first such cooperative effort of its kind anywhere.

People who fish consider the Pigeon River Country's rivers to be among the finest northern streams. As a group, fly fishermen perhaps know more about rivers than anybody else. In a sense, fly fishing is an excuse to study and explore firsthand the relationship of water to the environment. David Smethurst, who never keeps or kills his catches, considers fly fishing the happiest discovery of his life. "It's an experience that never ends," he says. "When you use a planer or put together a mortar joint, you learn how to do something and from then on you repeat it. With fly fishing your knowledge is always growing."

A half-inch worm, for instance, builds the case it lives in from certain materials. When Dave Smethurst looks at the Black River, he notices whether those materials are there. "I know what happens on the top, the bottom, and the sides." When these worms hatch into insects, they float to the surface, remain for a matter of seconds, fly off into the woods for a day or two, return to the water, lay eggs, and die. Such a hatch occurs within a few days of the same date each year, depending on location and weather conditions. Fly fishermen record such information meticulously.

One insect, the trico, or white-winged black, hatches at, say, 6:30 a.m. and is back, dead on the water, by 9:00 a.m. "It's whole life is two and a half hours long," Smethurst marvels. Mayflies are insects of the order Ephemeroptera, as in *ephemeral*, from the Greek, meaning to exist for a day.

Good fishing for Dave is a matter of finding good sitting logs on which

to watch the river. Some that jut out along the Pigeon and Black are 100 years old. One extends ten feet over the water and Dave found it at eight one evening, stretched full out on the log, and watched mayflies hatching in the black muck of a silt bed for three hours. "I never fished."

When he does fish, he bends the barb of the hook flat so it won't tear the trout's mouth. Unlike bait fishing in a lake, where a fish swallows the hook, fly-fishing hooks a trout in the lip. Dave slips the hook out with pliers, and the fish swims free without leaving the water or being touched by a hand.

The three orders of aquatic insects commonly recognized by northern fly fishermen, the stonefly, the caddis, and the mayfly, can be distinguished by the location of their wings. Looking at the insect nose to nose, the wings of a stonefly are flat across the top of the body, the caddis wings are slanted down like a pup tent, and the mayfly wings rise V-shaped from the body.

The insect most sensitive to pollution is the stonefly. In the 1930s, the Au Sable was fished with artificial stoneflies that blended with the live ones. By the end of the 1950s, when sewage was entering the famous stream near Grayling, stoneflies were gone from the Au Sable. Later the stoneflies were back, an indication that environmental laws of the 1960s are improving water quality. One way fishermen judge water quality on the Pigeon is by the variety of its hatches. All three orders of insect hatch there.

When Dave and his wife Sue passed through Gaylord after college on their way to a teaching interview in 1969, he neither hunted nor fished. They saw a want ad for resident manager of a wooded property on the Black River and within 12 hours became the resident managers of Blue Lakes Ranch just east of the Pigeon River Country. Dave Smethurst began to stop in at headquarters. Jerry Myers, a fisheries biologist who lived at the headquarters complex, talked to Dave about fishing. Walking through the woods one day, Jerry showed Dave a lion ant hill, built like a small volcano with a two-inch circumference hole on top. Jerry explained that when the lion ant's prey fell into the hole it could not scramble out because the sides were too sandy. He simulated the event by dropping a twig into the hole. A lion ant emerged. Dave got interested in trout fishing. His father occasionally fished lakes, which requires knowledge of lures, bait, and the location of fish beneath a vast surface. But Dave found the detailed work of stream fishing much to his liking, including the tying of artificial flies on a hook to resemble insects that reside, however briefly, on streams like the Pigeon.

Smethurst says his fly tying tends to be crude because he has more time

to be at the water perfecting his cast and gaining knowledge of the stream. But he envies the perfection of flies tied by people who can fish the streams only half a dozen times a year. They relive those times while working on bits of thread and feathers at their fly-tying benches through the winter. In this sense, the Sturgeon, Pigeon, and Black exist as a state of mind separate from the actual continuous flow of water past the sweepers, fallen trees, undercut banks, and cedar roots.