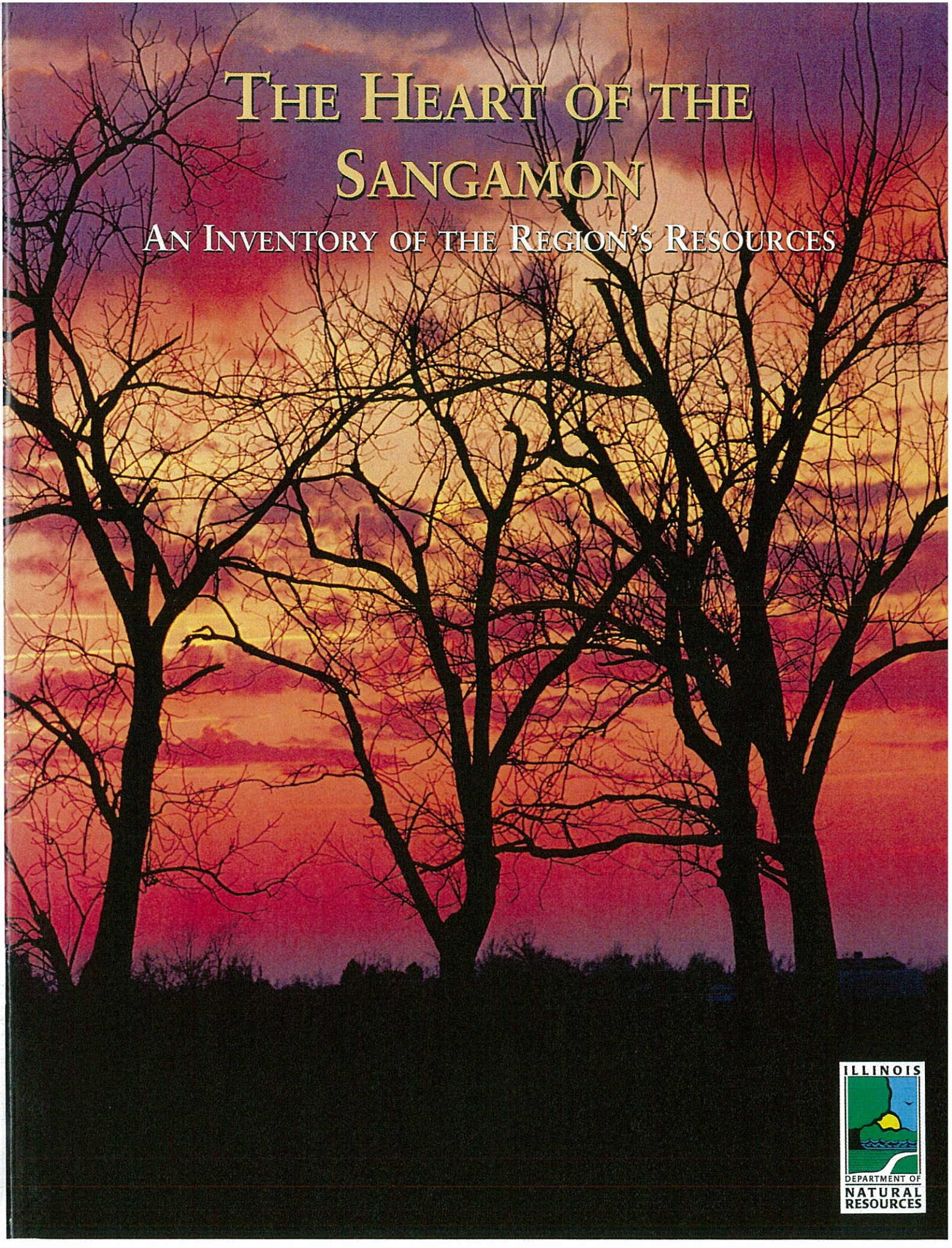

THE HEART OF THE SANGAMON
AN INVENTORY OF THE REGION'S RESOURCES
ILLINOIS
DEPARTMENT OF
NATURAL
RESOURCES

About This Report

The Heart of the Sangamon: An Inventory of the Region's Resources is a product of the Critical Trends Assessment Program (CTAP) and the Ecosystems Program of the Illinois Department of Natural Resources (IDNR). Both are funded largely through Conservation 2000, a State of Illinois program to enhance nature protection and outdoor recreation by reversing the decline of the state's ecosystems.

Conservation 2000 grew out of recommendations from the 1994 CTAP report, *The Changing Illinois Environment*, the 1994 Illinois Conservation Congress, and the 1993 *Water Resources and Land Use Priorities Task Force Report.*

The Critical Trends report analyzed existing environmental, ecological, and economic data to establish baseline conditions from which future changes might be measured, The report concluded that:

- the emission and discharge of regulated pollutants over the past 20 years has declined in Illinois, in some cases dramatically;
- existing data suggest that the condition of natural systems in Illinois is rapidly declining as a result of fragmentation and continued stress;
- data designed to monitor compliance with environmental regulations or the status of individual species are not sufficient to assess ecological health statewide.

The Illinois Conservation Congress and the Water Resources and Land Use Priorities Task Force came to broadly similar conclusions. For example, the Conservation Congress concluded that better stewardship of the state's land and water resources could be achieved by managing them on an ecosystem basis. Traditional management and assessment practices focus primarily on the protection of relatively small tracts of land (usually under public ownership) and the cultivation of single species (usually game animals or rare and endangered plants and animals). However, ecosystems extend beyond the boundaries of the largest parks, nature preserves, and fish and wildlife areas. Unless landscapes are managed on this larger scale, it will prove impossible to preserve, protect, and perpetuate Illinois' richly diverse natural resource base.

Because more than 90% of the state's land area is privately owned, it is plainly impossible for Illinois governments to acquire resources on the ecosystem scale. Therefore, the Task Force and the Congress called for public agencies and private landowners to cooperate in a new approach to natural resource protection and enhancement. If landowners can protect, enhance, or restore precious natural resources through enlightened private management, the need for public acquisition can be reduced.

The Congress and the Task Force agreed that this new approach ought to be:

- organized on a regional scale;
- voluntary and based on incentives;
- guided by comprehensive and comprehensible ecosystem-based scientific information;
- initiated at the grassroots rather than in Springfield.

Finally, the Congress and the Task Force agreed that natural resource protection need not hamper local economic development but can enhance it through tourism and outdoor recreation.

CTAP described the reality of ecosystem decline in Illinois, while the Congress and the Task Force laid out principles for new approaches to reversing that decline. And Conservation 2000, designed to achieve that reversal, has implemented a number of their recommendations, drawing on $100 million to fund nine programs in three state agencies.

One of these programs is IDNR's Ecosystems Program. The program redirects existing department activities to support new resource protection initiatives such as Ecosystems Partnerships. These partnerships are coalitions of local and regional interests seeking to maintain and enhance ecological and economic conditions in local landscapes. A typical Ecosystem Partnership project merges natural resource stewardship (usually within a given watershed) with compatible economic and recreational development.

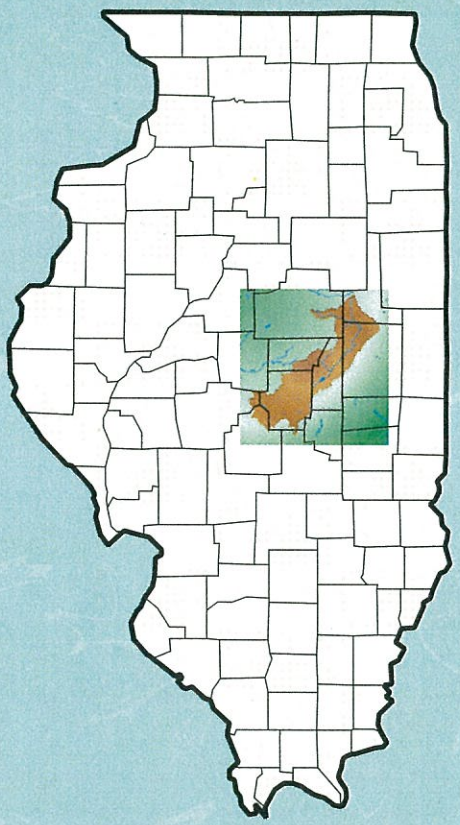
(continued on inside back cover)

A Project of the Critical Trends Assessment Program

The Heart of the Sangamon

An Inventory of the Region's Resources

2000



George H. Ryan, Governor
State of Illinois

✦

Brent Manning, Director
Illinois Department of Natural Resources

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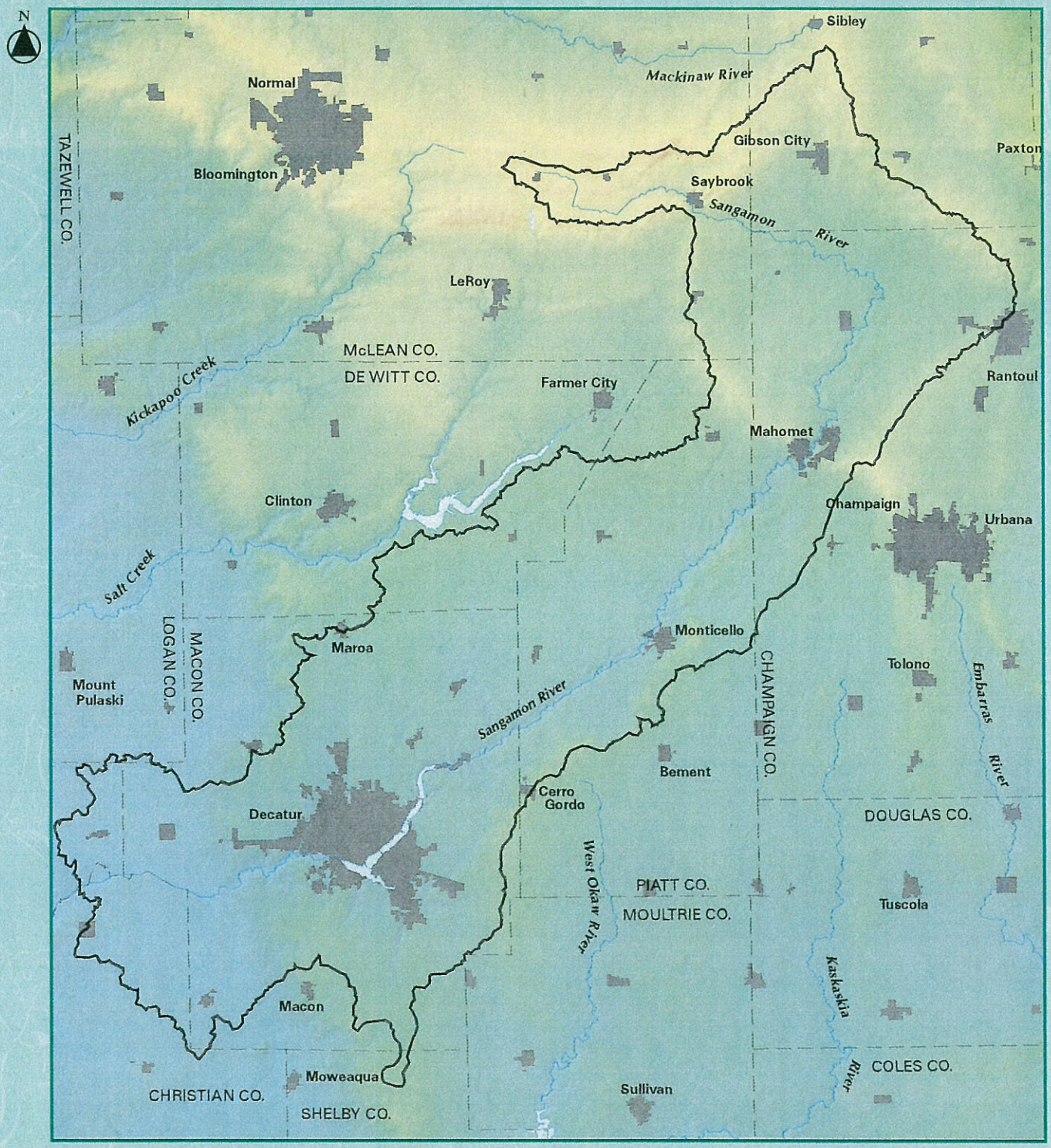
Heart of the Sangamon Landforms



LISA SMITH AND CHRIS GOLDSMITH • ILLINOIS STATE GEOLOGICAL SURVEY

0 5 10 15
Miles

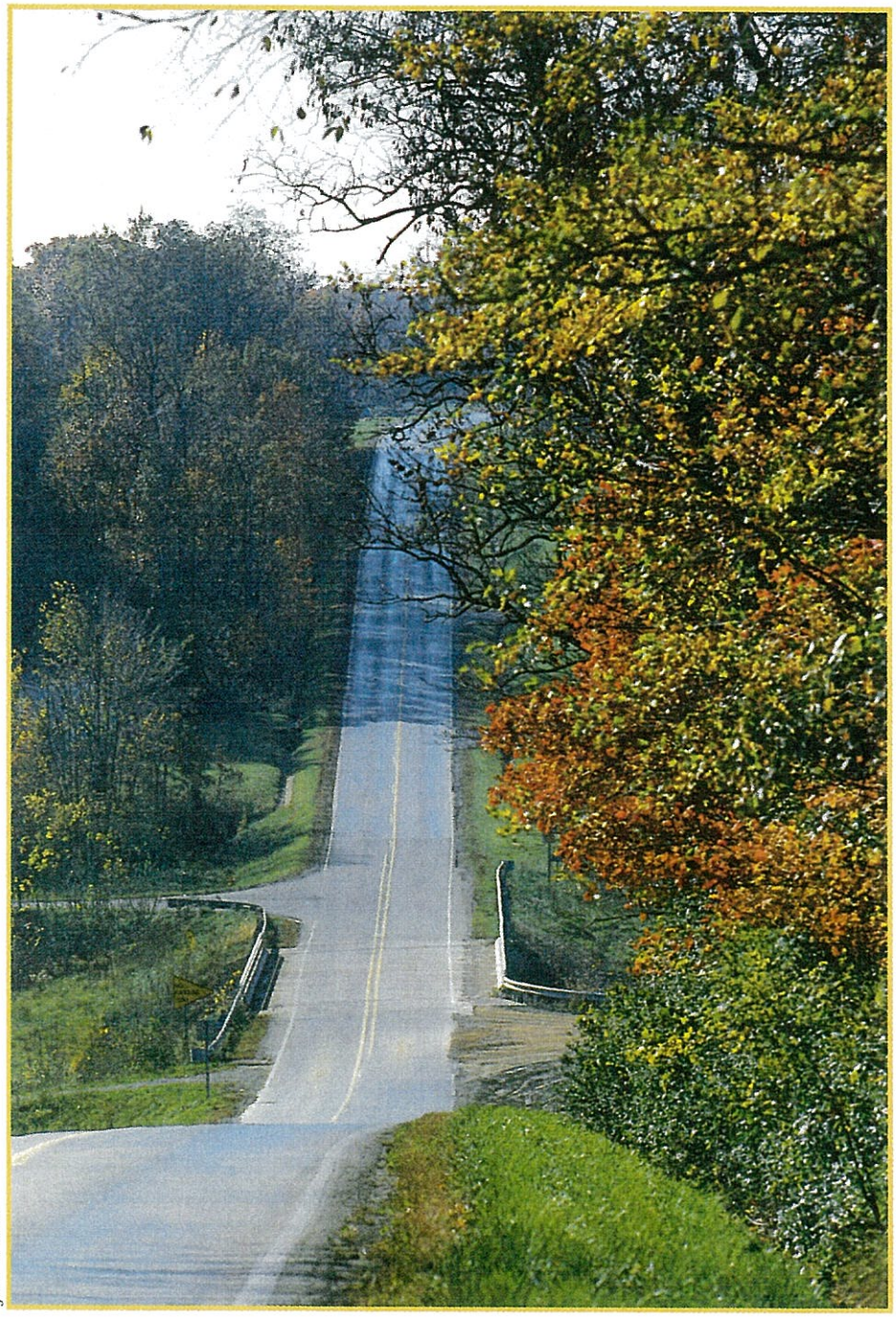
Elevations in feet above mean sea level

550	670	770	890
580	700	800	920
610	730	830	920
640	760	860	municipalities

- open water
- assessment area boundary
- county boundary
- state boundary
- rivers and streams

The Heart of the Sangamon

An Inventory of the Region's Resources



Joel Dexter

Seven major moraines, debris that piles up along the lip of a melting glacier, criss-cross the region. They include the Shelbyville moraine, above, and the Cerro Gordo moraine.

The Sangamon River meanders across central Illinois for more than 240 miles. Its waters accumulate in southeast McLean County and northwest Champaign County and eventually empty into the Illinois River near Beardstown. Near its headwaters, the gathering Sangamon is scarcely a river at all. In its lower reaches, which have been straightened by engineers, it is scarcely a natural river. In between is the heart of the Sangamon, and from Gibson City to its meeting with Mosquito Creek near Illiopolis, the river retains much of its character from the days before settlement.

The heart of the Sangamon drains 1,220 square miles, most of it in Macon and Piatt counties. The countryside is part of a massive "till" plain that blankets most of east central Illinois. Till is the jumbled rock debris — mostly gravels, sands, and clays — left behind by glaciers. (Till can be seen locally along streams where erosion has exposed the subsurface.) The bulldozing ice ground down the high spots of the old landscape and filled in the low ones, so that the most obvious trait of today's terrain is its lack of obvious traits.

Before Euro-Americans began settling the area around 1820, a visitor might have concluded that the ice had scraped off all the trees too. Nearly 60% of Illinois' land was covered by prairie at that time, but in the heart of the Sangamon an estimated 89% of the land was covered by prairie. Most forest in Illinois was found in the bottomlands of rivers and in

The area contains nearly 15% of the high-quality wet-mesic floodplain forest left in Illinois. Above, floodplain forest in Allerton Park.

ravines cut by streams, where trees were sheltered from prairie fires. In this part of the state — apart from streams such as Dry Branch, Willow Branch, and Long Grove Branch in southern Macon County — the landscape offered few such refuges for trees.

Where trees did take root in the local uplands they did so in groves, as if they were huddling together against the fires the way a bison herd huddles against attacking wolves. Long Grove was typical. This strip of timber, perhaps three-fourths of a mile wide, ran along the southern edge of its namesake township in Macon County. Here, reads an account from a century ago, "The several kinds of oak, elm, sycamore, sugar-tree, soft-maple, hickory, walnut, ash and other forest trees, skirt the banks of the Sangamon and the several streams which run through the township, adding beauty to the landscape, besides giving an ample supply of fuel, fencing, and building material for the farmer."

One of those fence-building farmers was 21-year-old Abraham Lincoln. Upon arriving in Illinois in 1830, his family built a cabin where timberland met prairie in west Macon County. Lincoln, writing in a campaign biography many years later, recalled that he and his kin split enough rails that first year to fence ten acres of ground, on which they sowed corn. "These are, or are supposed to be, the rails about which so much is being said just now," wrote Lincoln, "though these are far from being the first or only rails ever made by Abraham."

Only a quarter of this old-growth forest survives in the heart of the Sangamon. While this is roughly the

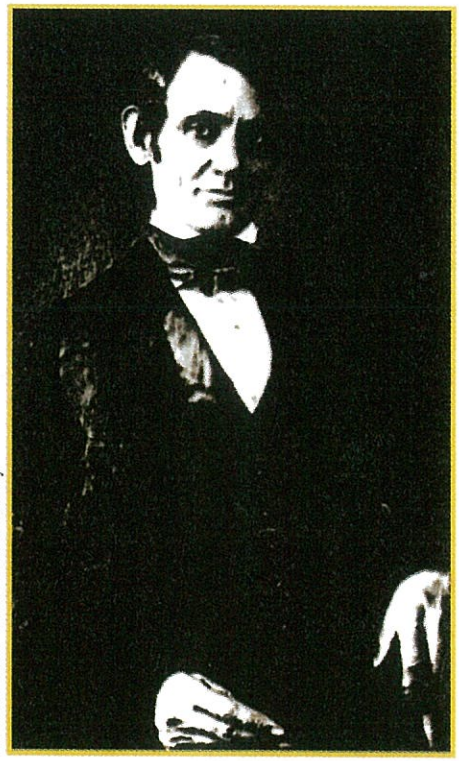
same proportion of forest loss as in Illinois as whole, the fact that the area was so sparsely forested to begin with means that the area is left with very little forest — less than 24,000 acres, or about 3% of the land, compared to more than 11% that is forested in Illinois as a whole. Much of it is second-growth forest still recovering from selective logging, heavy grazing, or clearing. Typical of the last is the woods near White Heath, long used as a picnic grounds at which local trains used to drop off daytrippers for outings by the river.

Prairie and forest are convenient categories for ecologists, but nature is not so careful about setting boundaries between ecosystems. In presettlement Illinois, prairie merged with woods to form a mix of both known as savanna. Even pure prairie and forest came in many forms, depending on whether they took root in soils that were wet or dry. The result was what biologists refer to as a "complex matrix of heterogeneous habitat types" that in this part of central Illinois is thought to have included 17 terrestrial natural communities alone.

Wetlands also varied in character, from seeps to swampy bottomland forests. Each leaves behind distinctive soils long after they have been drained, and by mapping them ecologists have estimated that wetlands of one kind or another once covered 46% of Piatt County's surface and 40% of Macon County's.

The plow is acknowledged as the machine that most changed Illinois after 1820, but in wet places thousands of acres were altered almost as dramatically by the field drain tile. About a century ago, a concerted effort began to drain the area's fertile but unfarmable acres. The results are described in an 1880 history of Macon County: "In 1855 there was not more than three hundred acres of soil in cultivation in [Austin Township], while at present almost every foot is cultivated or used for pasturage." Today, wetlands of all types cover only 1.5% of the area (most of that wooded land in the floodplain of the Sangamon) compared to more than 3% of Illinois as a whole.

What the surviving natural areas in the heart of the Sangamon lack in quantity, they often make up in quality. In the 1970s, the Illinois Natural Areas Inventory found 2,433 acres of high-quality, undegraded natural communities — that is, communities still essentially in their presettlement condition — in the area. Proportionately this is quite high for central Illinois, indeed higher than in the state as a whole. One of these sites is Calamus



Illinois State Historical Library

"At twenty one I came to Illinois, and passed the first year in Macon County."

The Area at a Glance

Δ The Sangamon River meanders across central Illinois for more than 240 miles. Near its headwaters, it is scarcely a river at all. In its lower reaches, which have been straightened, it is scarcely a natural river. In between is the heart of the Sangamon, where the river retains much of its character from the days before settlement.

Δ The heart of the Sangamon drains 1,220 square miles, most of it in Macon and Piatt counties. The countryside is part of a massive "till" plain (jumbled rock debris left behind by glaciers). The bulldozing ice ground down the high spots of the old landscape and filled in the low ones.

Δ Nearly 60% of Illinois' land was once covered by prairie, but in the heart of the Sangamon an estimated 89% of the land was covered by prairie. Unfortunately, not a single high-quality example of prairie survives, even though this habitat was the most widespread ecological feature of the area only a century and a half ago.

Lake in far western Macon County, an old oxbow lake formed when a channel or slough of the Sangamon River was cut off from its parent stream. The lake is the largest high-quality natural pond, and the best example of any remaining wetland, in east central Illinois.

Four local stream segments, totaling 145 miles, have been recognized as "Biologically Significant Streams" by state conservation experts because of the diverse life they support. Lone Tree Creek, Drummer Creek, and Goose Creek are on the list. So is the Sangamon River itself, from its source to the Piatt/Macon county line. Among its varied habitats in this stretch are sand and mud bars, rapids, riffles, and fairly deep pools atop a bed of sand, gravel, and cobble. Such environments are especially crucial to bottom-dwelling creatures such as the rare slippershell mussel, which still finds the river a congenial habitat.

The heart of the Sangamon may never have been one of Illinois' more lavishly forested parts in the past few thousand years, but paradoxically it contains more than its share of fine forested land. Here, on a mere 2.2% of the land area in Illinois grows 5.4% of the state's existing high quality upland forest. More specifically, the area contains nearly 16% of Illinois' high-quality dry-mesic upland forest, 8.2% of the high-quality mesic upland forest, and nearly 15% of the high-quality wet-mesic floodplain forest. In all, there is proportionately more than 11 times the high-quality original forest left in the heart of the Sangamon than in Illinois as a whole. Much of it is contained in Allerton Park (see *A Living Landmark*). Another remnant may be seen at the nature preserve in Spitler Woods State Park near Mt. Zion, where some white oak, bur oak, black walnut, and sycamore trees measure as much as 40 inches in diameter at breast height.

Joel Dexter

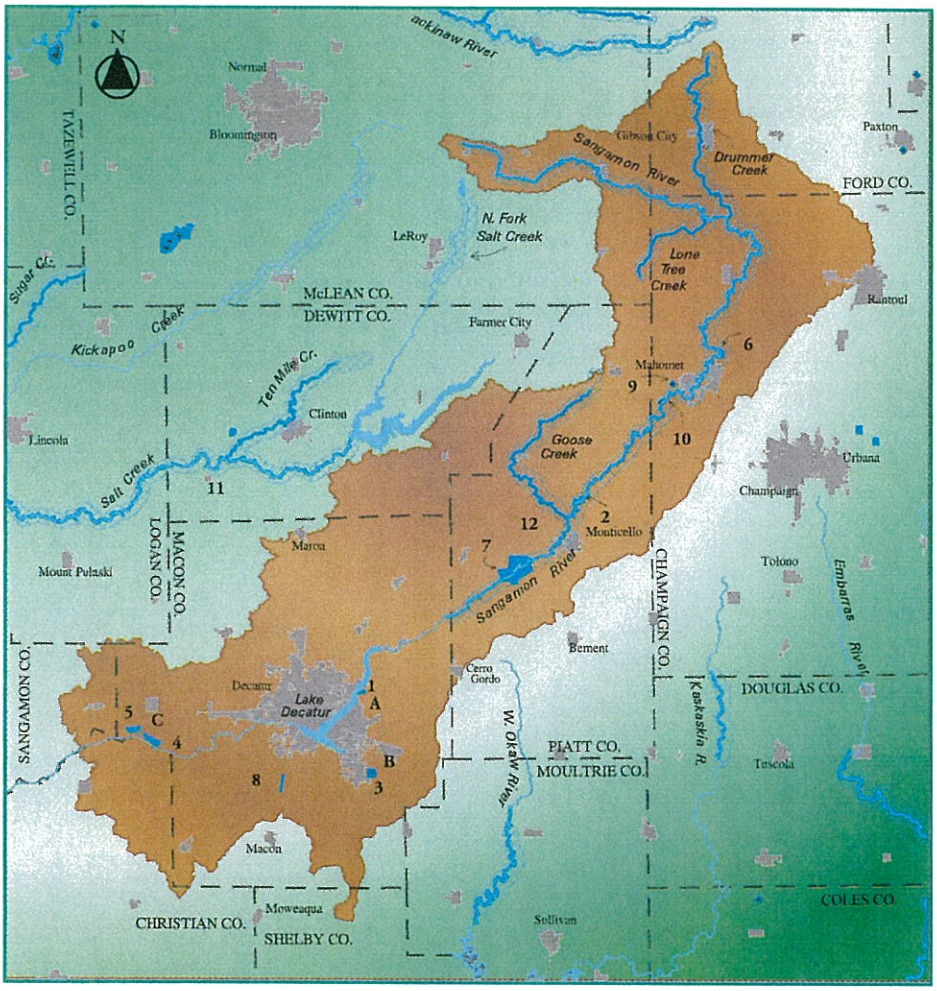
Three-fourths of the population live in urban areas, most of them in or around Decatur. However, Piatt County, whose largest city has 4,500 people, and much of Macon County remain overwhelmingly rural.

The actual acreage of old forest and other natural relics is still very small — 0.11% of the land area, or about 850 acres. Unfortunately, not a single high-quality example of prairie survives, even though this habitat was the most widespread ecological feature of the area only a century and a half ago. A linear remnant prairie has been discovered, however, along a pair of old railroad tracks between Niantic and Harristown and is included in the Metro-Decatur Greenway Coalition's plan for future greenways and trails.

A bit more than 300 acres of natural area are protected from development in State of Illinois nature preserves at Calamus Lake, Spitler Woods, and Bois Du Sangamon on the east shore of Lake Decatur. The area's rustic parks also function as de facto wildlife refuges. However, as such lands usually were not acquired for that purpose, their boundaries do not encompass the most biologically important parts of the area. Lake of the Woods, a private residential development later acquired by the Champaign County Forest Preserve District, is typical.

Even in such a massively altered landscape, natural life persists in some abundance. While this part of central Illinois is not as floristically diverse as other parts of the state — the absence of exposed bedrock, for example, means that whole communities of plants adapted to that niche are not present — the variety of plant life is substantial. More than one-half (1,230) of Illinois' approximately 2,200 plant taxa (species, subspecies, and varieties) are known from the area; 925 of these are native species.

Natural Areas, Nature Preserves, and Biologically Significant Stream Segments



Illinois Natural Areas Inventory Sites

1. Bois Du Sangamon
2. Lodge Park
3. Spitler Woods
4. Long Point Slough (East)
5. Calamus Lake
6. Nettie Hart Woodland Memorial
7. Robert Allerton Park
8. Elwin Camassie Site
9. Mahomet Site
10. Sangamon Phlox Site
11. Salt Creek
12. Sangamon River

Illinois Nature Preserves

A. Bois Du Sangamon
B. Spitler Woods
C. Calamus Lake

= Nature Preserve

= Natural Area

= Biologically Significant Stream

Scale 1:601920

0 10 20 30 Miles

0 10 20 30 40 Kilometers

The Area at a Glance

Δ Ecologists have estimated that wetlands of one kind or another once covered 46% of Piatt County's surface and 40% of Macon County's.

Δ In the 1970s, the Illinois Natural Areas Inventory found 2,433 acres of high-quality, undegraded natural communities in the area. Proportionately this is quite high for central Illinois, indeed higher than in the state as a whole.

Δ Four local stream segments, totaling 145 miles, have been recognized as "Biologically Significant Streams" by state conservation experts because of the diverse life they support. One is the Sangamon River itself, from its source to the Piatt/Macon county line. Its varied habitats are especially crucial to bottom-dwelling creatures such as the rare slippershell mussel, which still finds the river a congenial habitat.

Δ Only a quarter of old-growth forest survives here. The area was sparsely forested to begin with so the area is left with very little forest — less than 24,000 acres, or about 3% of the land, compared to more than 11% that is forested in Illinois as a whole. Much of it is second-growth forest still recovering from logging, grazing, or clearing.

A Living Landmark

To a songbird on the wing north for the summer, on the latter stages of a flight that in many cases began a continent away, a welcome sight is the archipelago of green islands that runs through central Illinois between Decatur and Champaign. These are the remnants of a once nearly continuous garland of trees that used to line the Sangamon River. One of these blocks of forest is Allerton Park, where migrating birds by the thousands take refuge to feed and rest.

Allerton Park was the estate of wealthy cattleman Samuel Allerton, who acquired it during the 1880s. When his son Robert took over the property in 1897, the estate consisted of more than 10,000 acres of farmsteads, pastures, cropland, and forest. In 1946 Robert donated to the University of Illinois the approximately 1,500 acres of the estate known as the Woodland Property, along with farmland that would generate income for the park that was to be developed. The land included a forty-room Georgian manor house, now used for conferences, that was set amid formal gardens and an extensive landscaped area.

Much of the grounds are maintained as a natural plant and wildlife sanctuary that is used for conservation education, recreation, and research. The park is home to 30 species of mammals, 60 species of breeding birds, 28 species of amphibians and reptiles, and approximately 45 species of butterflies, all sustained by 1,042 species of vascular plants. The 1,000 acres at the park's south end, a relatively undisturbed (and now rare) stream-valley ecosystem, was declared a National Natural Landmark in 1971.

Joel Dexter

Michael Jeffords

The gardens at the Allerton estate were devoted to the display of outdoor sculpture. The Chinese foo dogs, right, are an aesthetically refined version of the familiar backyard garden gnome.

The soils along the Sangamon may be fabulously fertile, but even they could not return enough food to feed a family in the days when farming was done mostly with hoes. One historian recalls life in Macon County's Long Creek Town in the 1820s and '30s: "In the early days there was an abundance of game here, principally deer, wolves, foxes, coons, etc.; wild-turkeys, pheasants, grouse and myriad geese and ducks. The streams abounded with fish; and wild-honey was to be found upon the table of the pioneer." The heart of the Sangamon still supports diverse aquatic life — 71 species of fish, 34 species of mussels, and 14 species of large crustaceans such as crayfish. As for its once-abundant mammals, the wolf is gone, but 44 species of mammals are thought still likely to occur here. Some, like bats, are present only for parts of the year; only the big brown bat is likely to remain in the area all winter.

Although gray fox tracks were seen in Allerton Park in 1992, gray foxes require extensive forest cover and have become scarcer as local woodlands shrink in size.

Eleven amphibian and 18 reptile species are known or thought likely to occur in this part of the river's basin. The list includes the massasauga snake and Kirtland's snake, two species whose survival in Illinois is considered endangered or threatened. The massasauga snake has been confirmed in the area only in Allerton Park. Kirtland's snake, a secretive animal with subterranean habits (often using crayfish burrows for shelter), was spotted near Monticello in 1990, but it is not certain whether the species is still present in the area. It is rare because it needs both prairie and wetlands for its life-cycle. Each of those habitats has become rare locally, and the two in proximity are rarer still.

The heart of the Sangamon once

Michael Jeffords

Eleven amphibian and 18 reptile species are known or thought likely to occur in this part of the river's basin. The list includes the massasauga snake, one of two species whose survival in Illinois is considered endangered or threatened. The massasauga has been confirmed in the area only in Allerton Park.

The Area at a Glance

Δ Although not lavishly forested, the area has 5.4% of the state's existing high quality upland forest. In all, there is proportionately more than 11 times the high-quality original forest left in the heart of the Sangamon than in Illinois as a whole. Much of it is contained in Allerton Park.

Δ Even in such an altered landscape, natural life persists in some abundance. More than one-half (1,230) of Illinois' approximately 2,200 plants are known from the area; 925 of these are native species.

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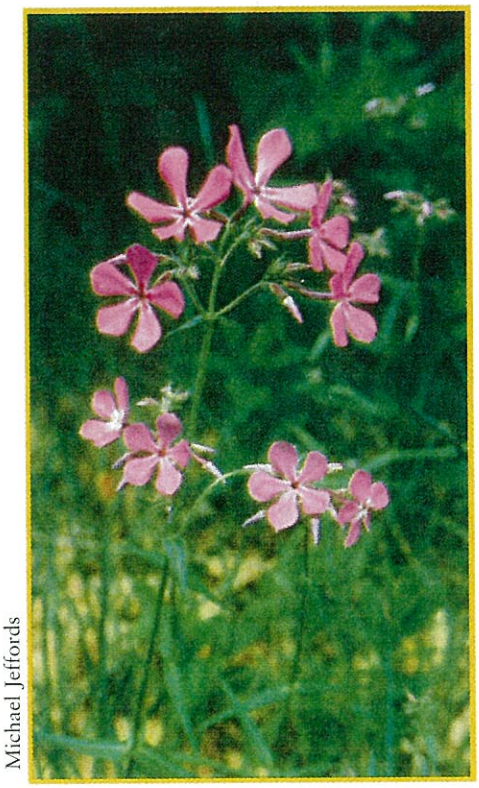


Michael Jeffords

The Sangamon phlox is a threatened species that grows along the Sangamon from Lake-of-the-Woods Park to the Piatt County line. This phlox is found nowhere else in the world.

was prime habitat for several bird species that today are extinct or nearly so in Illinois, from the American swallow-tailed kite to Swainson's hawk and the long-billed curlew. Many of the species still present are migrants such as the American golden plover and Smith's longspur; a significant portion of the world's population of each of these grassland birds migrates through the area. Lake Decatur attracts thousands of migrating ducks, loons, grebes, gulls, and terns. (The lake also sees an occasional bald eagle and trumpeter swan.) Shrublands are heavily used by migrants such as black-billed cuckoos, flycatchers, and warblers, and in the winter pine siskins and American tree sparrows visit old fields.

An abundance of migrant birds is typical of the heavily farmed parts of Illinois. What distinguishes bird life here is the relatively high number of species that breed in the area, thanks to the large blocks of sheltering forest along the Sangamon River. Of the 273 species that regularly occur in the area, 118 breed or used to breed here. The list includes less common species like the ovenbird, Acadian flycatcher, and pileated woodpecker, all of which nest in Allerton Park. For most bird species, however, the heart of the Sangamon is a population sink, filled with birds that are raised elsewhere and migrate into it.

The plight of grassland birds is typical of native species living in close proximity to humans. Ecologically speaking, the closest thing to the now-vanished prairies to which they are adapted is today's rural grasslands. These are not ideal prairie substitutes. Fully a quarter of the grasslands in the heart of the Sangamon take the form of grassy strips along county roads. Even pastures, while useful feeding grounds for many native birds, are seldom viable habitat for nesting because they are regularly mowed or heavily grazed.

The area hosts 38 species of plants or animals whose survival in Illinois is considered threatened or endangered, which is a modest percentage of local species. The "T&E" list includes the bald eagle, which also is considered a threatened species nationwide, and the red-shouldered hawk, a pair of which regularly breeds in Piatt County near White Heath. One of four plant species on the list is the Sangamon phlox, a subspecies of *Phlox pilosa* that grows along the Sangamon from Lake-of-the-Woods Park to the Piatt County line. This phlox is endemic to the area, meaning it is found nowhere else in the world. Also, colonies of ginseng, *Panax quinquefolius*, are present in Bois du Sangamon and in timber near Finley Creek.

Plant species are usually rare on the extremes of their natural ranges, where climate and other conditions are not conducive to their survival. Other plant populations, having adapted to very specific ecological settings, are vulnerable to even small changes in the environment. The heart-leaved plantain and the prairie white fringed orchid are two T&E plant species that once were quite common in this part of the state. The plantain needs clear-running streams and the orchid needs wettish prairies; both of these habitats have largely disappeared from the area. The heart-leaved plantain is extirpated from Champaign and Piatt counties and the white fringed orchid has not been seen since it was collected in Decatur in 1900, leading experts to conclude that it is now extirpated from Illinois.

Human Use of the Land

The human species has thrived along the Sangamon since Native Americans arrived some 10,000 years ago. Wherever archeologists have looked, they have found signs of former human occupation. The relative paucity of known sites (555) probably reflects the fact that only 3% of the area has been intensively surveyed for archeological remains.

As noted, the Euro-American occupation of the area began about 1820. Local soils were recognized to be rich by travelers who encountered them as early as the 1700s, but they also were wet much of the year, and the area was far from a navigable

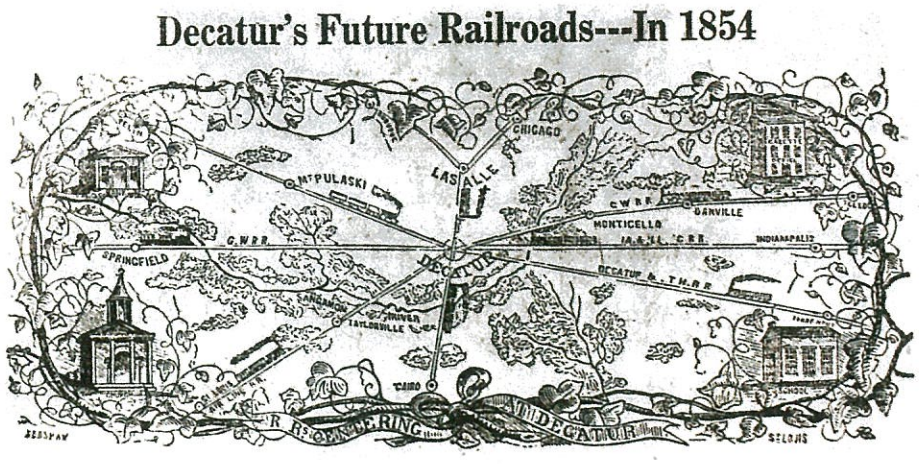
river on which farm goods might be shipped to market. The land's productivity thus remained untapped well into the 19th century. Decatur was little more than a hamlet until the 1850s, and large sections of the countryside around it remained essentially unsettled until the Civil War era.

Three inventions made life here more congenial for modern humans. One was the self-sharpening steel plow capable of turning thick prairie soils. Another was the field drain tile (see *Miles and Miles of Swamps*). Just as important was the steel rail. By carrying farm goods quickly and cheaply to distant markets, the railroads transformed subsistence farming into commercial agriculture, creating the wealth that made it possible to drain local prairies to make new farms. New towns, which once sprouted along rivers at fords or mill sites, went up at railroad stops. Decatur was such a creature of the railroads, becoming a town of consequence in the early 1850s when work began on an Illinois Central track.

The trains that carried farm goods out of the area soon also brought in raw materials to sustain new factories. Decatur became a quintessential Midwest industrial city, and the Macon County economy is still dominated by large factories of firms such as Caterpillar, Firestone, A.E. Staley, and Archer Daniels Midland, which together employ 80% of the manufacturing workers in the county.

In the 1980s Decatur suffered economically along with other cities in the aging industrial Midwest. "Rust Belt" products fared poorly against those made in newer, more efficient factories in other places. From 1970 to 1995, manufacturing employment in the area fell by 40%. As jobs disappeared, so did people. Macon and Piatt counties lost 11% of their combined population after 1980.

The cause of the area's decline in the 1980s was economic, not ecological. The land along the Sangamon remains fertile, and water is abundant. With the Sangamon and its



Illinois State Historical Library

A map, showing nearly every railroad to be built into Decatur, was used by the city's first newspaper before a single train had been seen in the town. It was found in the court house records by Miss Sadie Kenney, county abstracter, on an 1854 bill-head of Shoaff's Gazette.

The Area at a Glance

Δ What distinguishes bird life here is the relatively high number of species that breed in the area, thanks to the large blocks of sheltering forest along the Sangamon River. Of the 273 species that regularly occur in the area, 118 breed or used to breed here.

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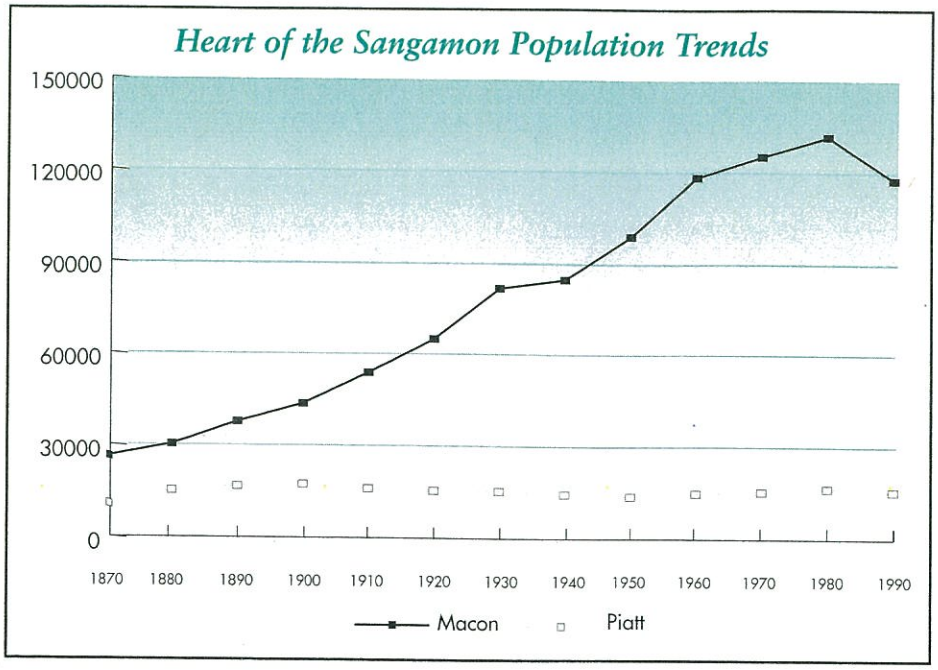
Δ One of four plant species on the T&E list is the Sangamon phlox. This phlox is endemic to the area, meaning it is found nowhere else in the world.

Δ The human species has thrived along the Sangamon since Native Americans arrived some 10,000 years ago. Only 555 archeological sites are known, but only 3% of the area has been intensively surveyed.

Illinois State Historical Library

Decatur, looking down Water street near Prairie Street.



tributary creeks, the area has 1,480 miles of streams and rivers. Lake Decatur's approximately 3,000 acres of surface area make it by far the largest local lake. Apart from it, only five lakes have surface areas larger than 25 acres — Lake of the Woods, Spring Lake near Mahomet (both impoundments, built for recreation and a residential development respectively), and three water-filled sand and gravel pits. The area also is dotted with 155 smaller lakes and hundreds of ponds.

Groundwater resources are especially plentiful. Glacial meltwater washed sands and gravels into low spots of the previous landscape, where they piled up as deep as 100-150 feet before they were subsequently buried. These deposits are as porous as sponges, and when groundwater accumulates in them they become rich reservoirs of fresh water. Some aquifers in the heart of the Sangamon yield good quality water at rates of up to 1,000 gallons a minute, enough to supply whole towns in the northern two-thirds of the area with good-quality drinking water.

Sand and gravel is excavated from nine pits for sale to local builders, but any marketable stone in the area is buried beneath dozens, even hundreds of feet of glacial till. Coal was actively dug in the past, mostly from five underground mines near Decatur, Blue Mound, and Niantic which operated variously between 1883 and the 1920s. While plentiful, the coal that remains is too deep, too sulfurous, or too remote from customers to make mining it worthwhile today.

The area's real mineral wealth is its soils, which are among the richest in a state blessed with rich soils. The surface consists mostly of till and outwash that is overlain by loess, or wind-blown silts, that lie 5-10 feet deep over much of the area. Some 95% of local soils developed in this raw material, which in terms of texture and chemistry is the very best basis for farm soils. The recycling of dead prairie plants over many centuries left the best local soils with more than 4.5% organic matter in the topmost "plow zone," a very high proportion. These soils, com-

The Area at a Glance

Δ The land along the Sangamon remains fertile, and water is abundant. With the Sangamon and its tributary creeks, the area has 1,480 miles of streams and rivers; it also has one large lake, Lake Decatur with approximately 3,000 acres, more than 160 smaller lakes, and hundreds of ponds. Groundwater resources are also especially plentiful.

Δ The area's soils are among the richest in a state blessed with rich soils. These soils, combined with the area's rainfall, have produced corn and soybean yields among the highest in the state. In 1994, Macon and Piatt were the top Illinois counties in corn yield.

Δ Nearly 90% of the land is in some kind of agricultural use, compared to 78% in the state as a whole. The area is especially suited to mechanized grain farming. More than 75% of the land in several stream subbasins is used to grow row-crops, which is the most intensive agricultural use of land.

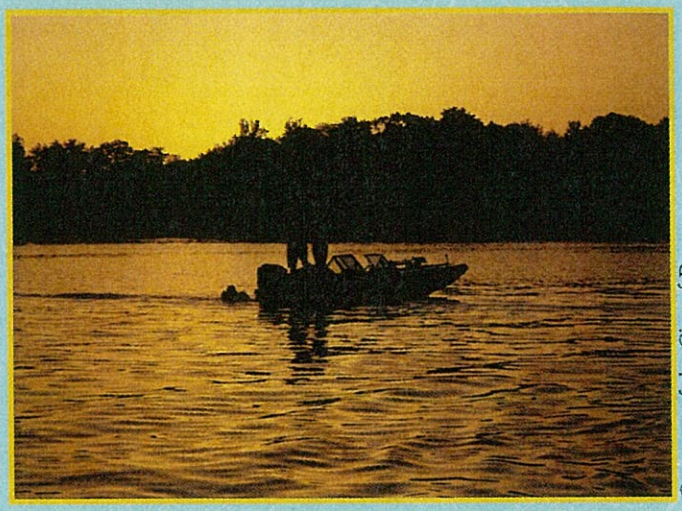
Decatur's Lake

Although it is set in an area that receives 38 inches of precipitation in an average year and where farm drainage systems had to be built on the township scale, the City of Decatur has a water supply problem. Since 1922 the city has supplied its public water system from dammed-up Sangamon River water in Lake Decatur. By the 1950s it was widely feared that the lake was filling up with sediments so fast it would soon be obsolete as a water supply. In 1956, new gates had to be added atop the dam to raise the lake level and increase storage capacity. In the 1960s the U.S. Army Corps of Engineers proposed that a new reservoir be built upstream near the town of Oakley. The new reservoir, however, would have flooded Allerton Park and the proposal drew such determined opposition from local land owners, nature lovers, and environmentalists that it was dropped.

A severe drought in 1988 again revealed the inadequacy of the lake as a water source. The city sank wells to supplement the lake supply in emergencies, but this project sparked new complaints from small towns and farmers concerned that their own wells would go dry if the city drank up regional aquifers. The city government pledged to use its wells only during droughts, and to remedy any resulting impacts on private or municipal wells.

The lake also has a water quality problem — nitrates. The concentration of nitrates in Lake Decatur's water is usually well below the drinking water Maximum Contaminant Level (MCL) of 10 mg/l set by the federal government. However, from 1980 to 1992 Lake Decatur equaled or exceeded the MCL 10% of the time when peak concentrations in the range of 10 to 16 mg/l were reached in late spring to summer. From 1993 to 1995 the lake recorded no exceedance of the standard, and in 1996 and 1997 it recorded only small exceedances.

Unfortunately, nitrates are not effectively removed by the treatment processes used by Decatur's water plant. Installing new processes such as ion exchange treatment was estimated to cost $6.5 - 7.0 million to build and $310,000 a year to run. Switching to a permanent groundwater supply would be even more expensive and would again place the city in conflict with area groundwater users.



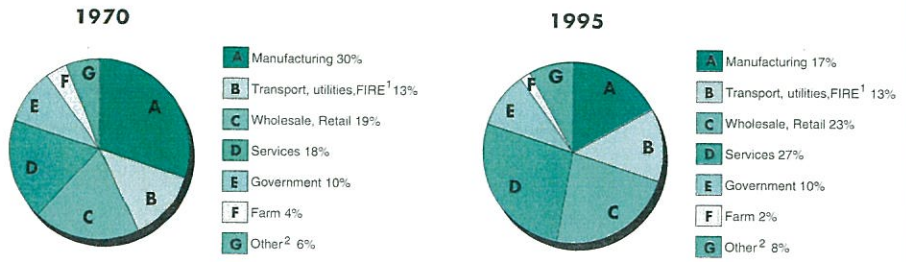
Courtesy of the City of Decatur

Lake Decatur

Several other solutions have been discussed over the years, including reducing the amount of nitrates entering the lake in the first place. A number of "best management practices" can reduce the amount of fertilizer washed off farm fields and, to a lesser extent, residential lawns and parks and golf courses. For example, changing tillage practices helps, as does planting more grass waterways and vegetation along streambanks and shorelines to catch chemicals (and eroded soil) before they enter streams that drain into the lake. Several of these practices are being implemented; for example, individual projects completed in the lake's watershed include riparian buffers, wetlands, nitrogen management, streambank stabilization, sediment ponds and filter strips.

For some, the technical problems may seem simple compared to the political, legal, and economic problems that come with watershed management. But for several years now the Upper Sangamon River Watershed Committee has been working to make the agricultural and urban communities understand each other's perspective, and to find solutions acceptable to both.

Changes in Employment Distribution, Macon and Piatt Counties



[1] Finance, insurance, and real estate [2] Construction, mining, and agricultural and forestry services

bined with the area's rainfall — most of which, happily, falls in the seasons when crops need it the most — have produced corn and soybean yields among the highest in the state. In 1994, Macon and Piatt were the top Illinois counties in corn yield.

The flat terrain as well as the soil is perfectly suited to farming, so it is no surprise that agriculture became the dominant land use in the area. Nearly 90% of the land is in some kind of agricultural use, compared to 78% in the state as a whole. The area is especially suited to mechanized grain farming. More than 75% of the land in several stream subbasins — Goose, Mosquito, and Friend creeks, Long Point Slough, and the Sangamon River — is used to grow row-crops, which is the most intensive agricultural use of land.

The availability of so much raw material made Decatur a natural site for factories that convert corn and beans into animal feed, sweeteners, and other products. The nearby presence of these hungry customers means that prices paid farmers in Piatt County are five to twenty cents higher per bushel than those earned by producers whose crops must be shipped some distance to the plants. This is a spur to local farmers to plant corn and soybeans, which together account for 99% of the local crop receipts.

The numbers of people directly employed on farms is much lower than it used to be. Even in Piatt County, which has more of its land devoted to crops than any other Illinois county, farm workers make up only 10% of the workforce. Both the number of farms and the amount of land in farms have been declining as fast or faster than statewide rates. The roughly $200 million that area farms received selling crops and livestock in a typical recent year is a small part of the area's annual income of more than $2 billion, and since 1980 farm receipts are down in constant dollars.

While farming has declined in economic importance, agribusiness — in the form of grain elevators, farm supply wholesalers, food warehouses and distributors, food processors, and builders and operators of drainage systems — remains important. Corn processing on the industrial scale began in Decatur in 1907, and today five factories making corn syrups, animal feeds, and related products employ more than 2,800 people.

One of the goods harvested from

The Area at a Glance

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Δ The widespread tiling of farm fields means that water now moves off the land more efficiently. This is a boon during a flood but small local streams that used to slow to dribbles in dry spells now dry up completely.

Δ Although water quality in the Sangamon River downstream from Decatur has improved in recent years, it nonetheless remains only fair. Water quality upstream from the city is generally good, in spite of runoff from farm fields and wastewater discharges from several small-town treatment plants.

Joel Dexter

The back roads in the area are ideal for bicycling. In some areas, abandoned rail beds have been converted into bicycle trails. The Monticello Lions Club sponsors an annual Sangamon River Valley Bike Ride that offers 15-, 30-, and 45-mile jaunts on a route that includes Allerton Park and Buck's Pond in Lodge Park.

nature these days is recreation. Many of the pastimes that were necessary to life along the Sangamon 150 years ago — hiking, canoeing, fishing — have become today's recreations. Hunting is typical. For decades after settlement, the table set by a typical rural resident consisted substantially of foods that were gathered, trapped, or shot in the local woods and streams. Friends Creek Township in the 1830s was typical. There, records one history, "The falls and winters...were spent principally in hunting and trapping. The game consisted chiefly in deer, turkey, prairie chickens, mink, coon, otter, musk-rat, etc." The skins of foxes, wolves, raccoons, and other animals served as barter goods with which settlers paid taxes and store bills. Hunting and fishing remain popular pastimes in the area, with deer and pheasant being the most popular game.

Public recreational lands in the area are relatively few and small, amounting to 4,534 acres. Lincoln Trail Homestead State Park is a 162-acre site along the Sangamon River in eastern Macon County that marks the spot where the Lincoln family built a cabin in 1830; the park offers fishing, boating, hiking and picnic facilities. Apart from hiking, the 202-acre Spitler Woods State Natural Area, located on the outskirts of Mt. Zion in southeast Macon County, is not developed for recreation.

In terms of acreage, county conservation areas and parks constitute the major recreation sites. For example, the 1,343-acre Rock Springs Center for Environmental Discovery, operated

by the Macon County Conservation District, offers hiking and cross-country ski trails, bow hunting, and a restored 19th-Century farmstead. Other sites are Lodge Park, a 500-acre Piatt County Forest Preserve site that straddles the Sangamon River upstream from Monticello, and Lake of the Woods Park at Mahomet, maintained by the Champaign County Forest Preserve District. Opportunities for outdoor experience also are provided by the University of Illinois at Robert Allerton Park.

Impact on the Land

The story of the breaking of the prairie is a staple of school history, but the drying of the prairie was in some ways a harder test of human ingenuity. The widespread tiling of farm fields means that water now moves off the land more efficiently. This is a boon during a flood but when the weather is dry it leaves the land more parched than it would be in an unaltered system; small local streams that used to slow to dribbles in dry spells now dry up completely. Such stream desiccation is thought by some biologists to have contributed to the decline of at least 12 fish species across Illinois.

The re-engineering of area ecosystems continues, if less dramatically than a century ago. Habitat does not need to be destroyed to render it unsuitable for native plants and animals; it only needs to be degraded, and that can happen in many ways.

Pollution Although water quality in the Sangamon River downstream from Decatur has improved in recent years — thanks mainly to construction of a new sewage treatment plant by that city — it nonetheless remains only fair. Water quality upstream from the city is generally good, in spite of runoff from farm fields and wastewater discharges from several small-town treatment plants. Almost a third of the land upstream drains directly into the Sangamon River, and topsoil carried into the river can carry fertilizers and other farm chemicals with it.

The land surface locally has long been used to store waste — the area has many waste storage ponds and more than eighty old landfills. Chemically contaminated former factory grounds are present in 11 area towns. Legacies of the area's industrial past also exist in the form of 13 sites (10 of them in Decatur) listed for cleanup under the federal "Superfund" law. All such sites pose some local risk of soil and water pollution.

Sand and gravel formations lying no deeper than 50 feet below the surface (a category that includes many formations along the Sangamon) are vulnerable to being contaminated by materials that are spilled, leaked, or spread on the surface. Land thought to be at high-to-excessive risk of such pollution amounts to 38,200 acres, or about 5% of the local surface area. For example, nitrates can enter groundwater from fertilizers applied to lawns and farm fields or from septic systems. The Illinois State Water Survey has documented numerous cases of private rural drinking water wells registering higher nitrate levels. The data suggest that contamination affects particular wells and farmsteads rather than whole aquifers, but the phenomenon is still being studied.

Erosion Because the land lies so flat, the soils here are not especially prone to erosion. Still, when so much land is farmed even a little bit of soil

The Area at a Glance

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Δ Recent improvements in erosion control, such as the planting of filter strips along waterways and the setting aside of highly erodible acreage from row-crop production, have reduced erosion rates. Still, in an area in which so much land is farmed, a lot of soil can find its way into the Sangamon.

Joel Dexter

The youth of the landscape is a blessing to farmers. The minerals in the soil have not yet been leached out or been broken down by long exposure to weather, and water has not yet had time to carve the surface into ravines that frustrate the plow.

lost from each field can add up to a great deal of soil in streams, especially after one of central Illinois' typically heavy spring or summer rains.

Streams can also bleed soil into the water from their own banks. The soft banks of the Sangamon have always been vulnerable to strong currents, which undercut the trees growing there. In Lincoln's day, jams of fallen trees were barriers to navigation by even small river craft. Undercut trees still clog the river. Tiled fields, as well as urban developments that lack stormwater management, deliver water from the surface into streams more quickly than nature. This causes water to rise quicker and higher (and thus pack more erosive energy) than it otherwise would. Researchers at the nearby University of Illinois are developing guidelines for log jam removal that will stabilize stream channels and minimize disruption of natural stream processes. Standards developed by the American Fisheries Society recommend selective removal of logjams or portions of logjams so that water can be conveyed while leaving some habitat for animals.

Near Argenta, Friends Creek's steep banks stand 8 to 10 feet tall, which exposes much soft glacial till to water smashing into the bank where the streambed curves. The local Illinois Natural Resources Conservation Service with assistance from the Macon County Soil and Water Conservation District Lake Decatur Watershed Staff, working with the cooperation of the private landowner, undertook to stabilize the exposed bank. The method chosen for this spot was to install a series of bendway weirs, or piles of stone that jut into the current. These redirect the stream's flow so that it will not undercut the bank.

A certain amount of topsoil leaves

even well-managed farm fields. Recent improvements in erosion control, such as the planting of filter strips along waterways and the setting aside of highly erodible acreage from row-crop production, have reduced erosion rates on those lands. Still, in an area in which so much land is farmed, a lot of soil can find its way into the Sangamon. At peak concentrations, more than 25,000 tons of soil per day have moved past Monticello in recent years. The loss of even this much soil, however, is not ruinous to farm productivity. In 1997, 84% of the farm acreage in Macon and Piatt counties was meeting tolerable soil loss levels, typically between three and five tons per acre per year, the amount that can be replaced by natural soil building processes.

Erosion does take a toll on the productivity of area streams. Silt in the river channel smothers bottom-dwelling animals such as mussels; of the 34 species of mussels that have been recorded in the area, individuals of only 28 have been found alive in the past 20 years. Soil erosion also shortens the life of artificial water supply reservoirs. Because they are formed by dams built to block natural waterways, reservoirs such as Lake Decatur act as sediment traps. Since 1936, Lake Decatur's water volume has shrunk 25%.

Fragmentation The construction of roads, fields, and houses fragments the natural landscape into habitat "islands." Fragmentation severs the links that connect disparate habitats — a particular problem for amphibians and reptiles, which tend to require very different kinds of places for hibernation, feeding, and breeding. Often, fragments of habitat are too small to sustain species that need extensive home ranges. The entire local populations of some plant and animal species in such tracts may include only a few individuals, which are especially vulnerable to disease and in-breeding. Clearings in woods expose once-sheltered trees to sun and wind, and offer easy entrance to predators and parasites. Forest openings also create "edge" habitat that attracts deer, whose browsing can reduce populations of desirable plants on the forest floor. This is particularly the case in the heart of the Sangamon, where nearly all the best habitat occurs in a narrow band along rivers and streams and thus has a very high proportion of edge to area.

The four largest forested tracts in the area (all located between Mahomet and Lake Decatur) are bottomland woods that range in size from 426 to 673 acres. However, the other forested wetlands in the area consist of more than 500 separate parcels with an average size of 16 acres. The area's two biggest emergent wetlands — so-called because they contain water shallow enough that plants rooted in them emerge above the water surface — are found in the Sangamon bottomland between Mahomet and Fisher. Each covers about 40 acres, but the average emergent wetland locally covers only 1.7 acres, and the smallest measures less than 0.1 acre.

Altered hydrology Improving drainage is not the only reason people have re-engineered the local network of streams and wetlands. The first major building in most localities was a mill to grind grain or saw logs. For example, a pair of brothers — aptly named Miller — built a grist-mill in 1837 on the north side of the Sangamon in Harristown Township. Such mills

The Area at a Glance

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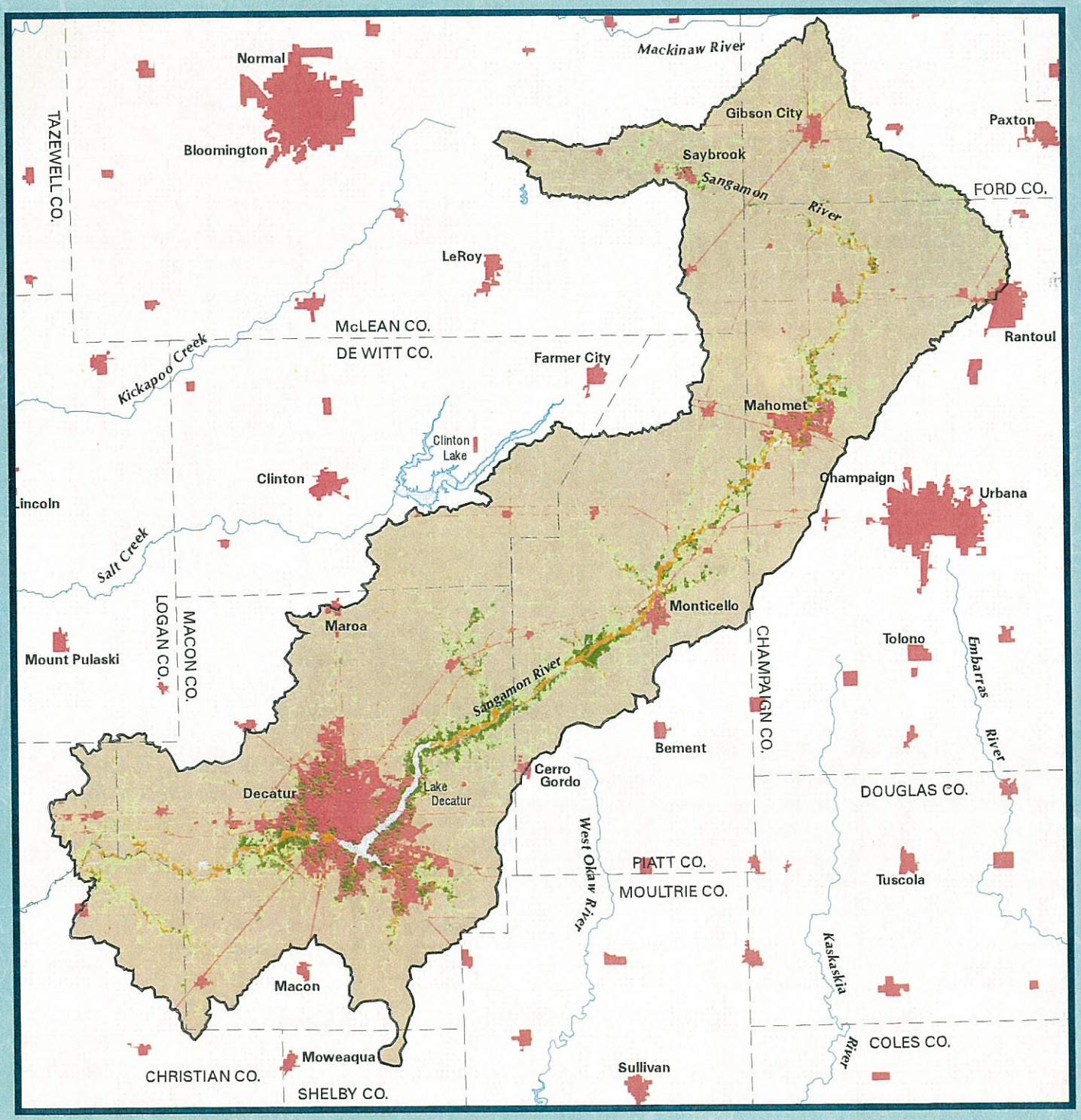
Land Cover



LISA SMITH AND CHRIS GOLDSMITH
ILLINOIS STATE GEOLOGICAL SURVEY

0 5 10 15 20
Miles

- cropland
- rural grassland
- forest and woodland
- urban and built-up land
- wetland
- lakes and streams
- barren and exposed land
- outside of assessment area
- county boundary
- subbasin boundary
- river or stream

Michael Jeffords

Compass plant

were powered by falling water; to trap and store water, the Millers built a dam across the Sangamon. Dams such as this turn a moving stream into a lake, and thus alter conditions for everything that lives in the stream.

Withdrawing water from a stream can change conditions downstream. In the summer months, the City of Decatur withdraws so much water from the Sangamon River that little or no water moves from the lake into the downstream reaches of the river. During such low-flow periods, virtually all the water in the Sangamon below the city comes from Decatur's sewage treatment plant.

Just as pronounced in their effects on river ecology are levees built to keep the Sangamon's now-agricultural floodplain from being flooded. Floodwaters that once spilled over onto miles of floodplain are corralled into an artificially narrowed main channel. Overflow is concentrated in fewer spots along the river, where it thus tends to stand deeper and for longer periods than when it was able to spread across more acres. Flooding in such places has altered the floodplain forest along the Sangamon River, with proportionately more flood-tolerant silver maple trees growing in these areas today than a century ago.

Exotic species Of the plant species found in the area today, about 25% were introduced from other places. Unhampered in their new environment by the predators or diseases that kept them in check in their original range, some species flourish at the expense of natives. One such plant is garlic mustard, which is virtually uncontrollable once it becomes established in wooded areas. The plant crowds out native wildflowers, and thus poses a threat to the richly diverse understory at such places as Allerton Park and Lodge Park. The former's bottomland forest is rich in native herbs such as phlox, which flowers so profusely as to color the forest floor blue in early spring. The University of Illinois, which manages Allerton Park, has undertaken a garlic mustard control demonstration that aims in part to use or mimic natural ecological processes to reduce populations of this plant.

Urbanization In the many centuries before the arrival of Euro-Americans, the human populations in central Illinois apparently shifted habitations back and forth across the landscape in response to swings in climate. They populated upland areas during cooler

The Area at a Glance

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Δ Urbanization has only modestly affected local land resources. In the early 1990s, urban land use in Piatt County amounted to less than 1% of the county's surface; in Macon County it was less than 9%.

Miles and Miles of Swamps

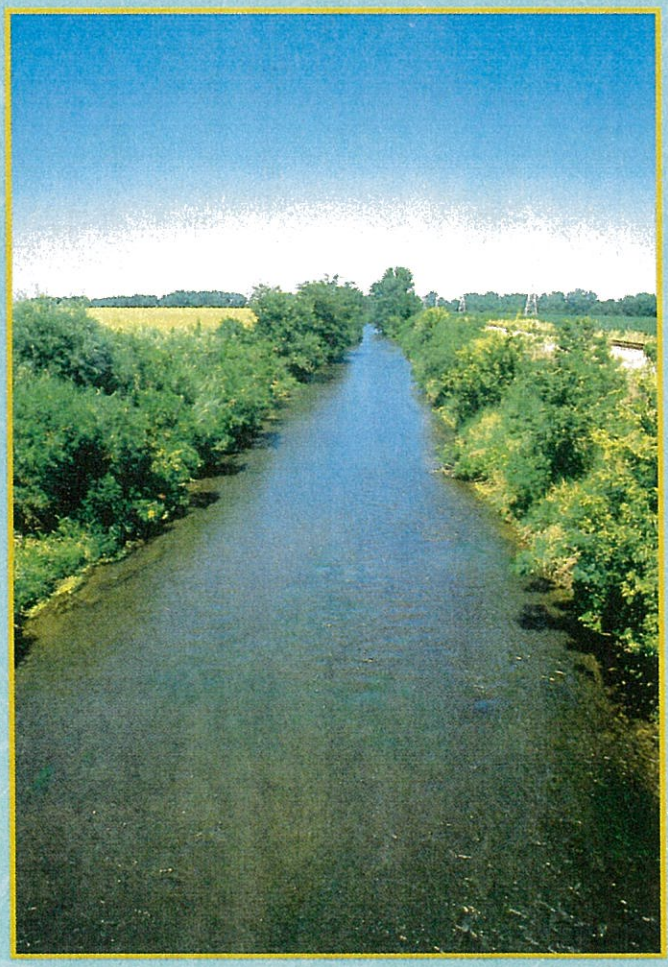
Rain or snow tends to stay where it falls in central Illinois. The surface is flat and the subsoil is largely made up of fine-grained clays that trap water near the surface. Water neither runs off the surface nor infiltrates it very efficiently. Even today, with the area criss-crossed by drainage ditches and tile, only about 10 inches of the 38 inches of precipitation that falls in an average year ends up in streams.

Indeed, before it was drained, much of the area stayed wet all year. Early travelers to Champaign County had to splash across "miles and miles of swamps." The soggier parts of the area remained essentially unsettled until after the Civil War, unused except as free pasture for grazing cattle in summer and fall.

The sodden landscape of the early 19th century may have repelled settlers but mosquitoes loved it. Mosquito-borne malaria, known locally as the ague, was common among the early settlers of "the Sangamo country." Abraham Lincoln's first year in Illinois was spent with his extended family in a cabin near the Sangamon River. According to one history, "All hands were greatly afflicted with ague and fever, to which they had not been used, and by which they were greatly discouraged, so much so that they determined on leaving the county." The Lincolns changed their minds and stayed. The following spring, March 1831, a merchant hired Lincoln and two companions to take a flatboat from Beardstown, Illinois, to New Orleans. They were to join their employer at Springfield, but the countryside was so flooded they had to buy a large canoe and traveled down the Sangamon River to their appointment.

To render the land along the Sangamon farmable (and healthful), its inhabitants had to help nature drain it. Drainage work began in earnest in 1879 when the legislature authorized the creation of drainage districts that could tax local land to pay for such work. Soon even the smallest towns such as Harristown and Maroa had tile factories busy making drain tiles. In Blue Mound alone, two plants turned out 325,000 feet of tile, 61 miles per year.

The number of "streams" on a modern map of southern Piatt County with names such as Ditch No. 3 and Hammond Mutual Ditch suggest the degree to which the stream system has been rebuilt. Today more than half the stream reaches within the area have been cleared of fallen trees and "channelized," or straightened, to facilitate the movement of water. The transformation thus wrought of Niantic Township was typical. "This territory, formerly classed under the head of swamp lands, was practically donated to Macon county, because it was regarded as absolutely worthless," reads an 1880 history, "while today it ranks among the best agricultural townships."



Michael Jeffords

Channelized Stream

and wetter eras, retreating to the valleys during centuries-long dry spells that left the uplands relatively parched. Euro-Americans also migrated from one part of the landscape to another, although in response to shifts in economics rather than climate. For example, prairies remained largely unoccupied by farmers until they were drained, new towns sprang up overnight when railroads were built, and country towns were emptied when factories drew people into the larger towns and cities.

The last trend is being reversed as people move into developments built in the country. Population in western Piatt County (near Decatur) has increased since the 1970s even though local employment declined slightly, which suggests that some of the new residents are living in the country while they work in the city. In Piatt and Macon counties, the two counties that make up most of the area, nearly 5,000 acres were urbanized between 1982 and 1992, in spite of the fact that population in those years was declining. A drop in the size of the average household was a factor, since fewer people living in each household requires more households to accommodate a population of a given size. For example, the number of households rose more than 12% between 1970 and 1990 even though population dropped 6%.

In terms of area affected, urbanization has only modestly affected local land resources. In the early 1990s, land in urban use in Piatt County amounted to less than one percent of the county's surface. Even with Decatur at its center, Macon County's urban land occupies less than 9% of its area. However, because construction of rural subdivisions and estate homes is a major cause of habitat fragmentation, and because the sites that are most appealing to buyers are often the most sensitive ecologically, urbanization has disproportionately large ecological effects. Just as the Lincolns did in the 1830s, settlers in the 1990s seek out wooded sites by the river. The latter's appeal to these modern homesteaders is not access to lumber for fences and fuel, but scenery, ambiance, and recreation. Developers of the 700-acre The Lakes at Riverbend in Mahomet promise buyers "a resort setting in your own backyard" with swimming, non-motorized boating, fishing, and miles of groomed paths for biking, walking, jogging, and cross-country skiing.

Rural housing developments are just one of what ecologists call "cultural" habitats that make up most of today's upper Sangamon River basin. Cultural habitats range from artificial lakes to city streets, golf courses, and farms. Created by and usually for humans, none hosts communities of living things as rich as those in nature. Plants and animals unable to adapt to human presence either died out locally, or found refuge in unused corners of the landscape.

This is not to say that the environments people have created for themselves are barren of other kinds of life. The short larval period of amphibians such as the western chorus frog means they can breed in flooded fields and ditches. Relatively few native bird species thrive in farm fields, but each fall harvested fields offer feeding places for mallard ducks and Canada geese, and in the spring flooded fields attract migrating birds such as the pectoral sandpiper. Backyards (especially those with bird feeders) are home to a sur-

The Area at a Glance

Δ Grasslands and prairies were being restored in the late 1990s across east-central Illinois, and while they do not yet match the full ecological complexity of the originals, restored and reconstructed tallgrass natural communities provide habitat that attracts substantial numbers of birds, from bobolinks and Henslow's sparrows to northern harriers and short-eared owls.

Δ The potential for improvement is significant. Closing gaps in woods by encouraging the regrowth of oak trees on ridgetops and on the old floodplain terraces along the Sangamon would eliminate the edge habitat preferred by predators and parasites, making existing nest sites for breeding songbirds safer as well as adding new ones.

Δ Restoring riparian, or riverside, wetlands that have been drained or become clogged with sediment would expand habitat for dozens of species, particularly birds, amphibians, and reptiles.

Courtesy of the Macon County Conservation District

Prairie will be restored at Sand Creek Recreation Area.

prisingly varied aviary. While a dozen or so common birds (many of them non-natives) dominate, towns along the Sangamon commonly see some two dozen species of migrant birds, including kinglets, warblers, vireos, and finches.

As ecological generalists, mammals are particularly able to adapt to a wide range of food sources and breeding habitat. Among the species that cope well with the human changes to the landscape are voles, woodchucks, gophers, field mice, and badgers, all of which can be found in field edges, grassy roadside strips, old fields, pastures, and hayfields. The 13-lined ground squirrel is a probable inhabitant of some area cemeteries and golf courses. Gray squirrels prefer forest with dense understory, but can survive in parks and tree-lined streets; the animal is scarce or rare in Decatur and White Heath but common in Monticello, Mahomet, and Gibson City.

Restoration

Grasslands and prairies were being restored in the late 1990s across east-central Illinois, including 55 acres in Allerton Park and 200 acres at Rock Springs Center, as well as projects at Sand Creek Recreation Area, Fort Daniel Conservation Area, and Friends Creek Regional Park undertaken by the Macon County Conservation District. While they do not yet match the full ecological complexity of the originals, restored and reconstructed tallgrass natural communities provide habitat that attracts substantial numbers of birds, from bobolinks and Henslow's sparrows to northern harriers and short-eared owls.

The wild turkey, which had been driven from the area's forests, has been successfully reintroduced, as evidenced by the greatly increased number of sightings at Allerton Park in recent years. At Bois du Sangamon Nature Preserve the Nature Conservancy is assessing different garlic mustard management techniques.

The potential for further improvement is significant. Friends Creek Regional Park, Rock Springs Center, and Lake of the Woods could all be managed to maintain shrubby cover for birds adapted to early successional habitats. Closing gaps in woods by encouraging the regrowth of oak trees on ridgetops and on the old floodplain terraces along the Sangamon eliminates the edge habitat preferred by predators and parasites; this makes existing nest sites for breeding songbirds safer as well as adding new ones. Restoring riparian, or riverside, wetlands that have been drained or become clogged with sediment would expand habitat for dozens of species — birds, amphibians, and reptiles in particular. Rural greenways and trails, such as those envisioned by the Decatur Greenways project, provide protected corridors by which animals may move safely between now-fragmented habitats.

Several local groups and individuals have banded together to form the Heart of the Sangamon Ecosystem Partnership. The partnership already has several ecosystem projects underway, including a project to eliminate non-native grasses and establish native warm season prairie grasses on 154 acres.

All such projects enhance wildlife habitat, but in the process they also enhance local opportunities for people to experience sights, sounds, and scenes that they might otherwise not encounter.

(continued from inside front cover)

In addition to coordinating IDNR programs with those of Ecosystem Partnerships, the Ecosystems Program:

- provides technical assistance to the partnerships, such as resource management plans for use by participating landowners;
- assesses resources in the area encompassed by each Ecosystem Partnership, collecting data that the local partners themselves may use to set project priorities and design projects, and supplying scientific support to ecosystem partners, including on-going monitoring of Ecosystem Partnership areas;
- funds site-specific ecosystem projects recommended by each partnership. Such projects may involve habitat protection and improvement, technical assistance, and research and education, including projects that seek to expand the relationships between natural resources, economic development, and recreation.

To provide focus for the program, IDNR developed and published the *Inventory of Ecologically Resource-Rich Areas in Illinois,* and is conducting regional assessments for areas in which a public-private partnership is formed.

The Heart of the Sangamon: An Inventory of the Region's Resources is based on one of these assessments, the *Upper Sangamon River Area Assessment.* The assessment was compiled by staff of IDNR's Division of Energy and Environmental Assessment, Office of Realty and Environmental Planning; and the Illinois State Museum, the Illinois Waste Management and Research Center, and the Illinois Natural History, State Geological, and State Water Surveys of IDNR's Office of Research and Scientific Analysis.

The *Upper Sangamon River Area Assessment* and all other CTAP and Ecosystems Program documents are available from the IDNR Clearinghouse at (217)782-7498 or TDD (217)782-9175. Many are also available on the EcoForum Bulletin Board at (800)528-5486 or (217)782-8447. Documents also are available on the World Wide Web at:

http://dnr.state.il.us/ctap/ctaphome.htm and
http://dnr.state.il.us/c2000/manage/partner.htm.

For more information about CTAP, call (217)524-0500 or e-mail at ctap2@dnrmail.state.il.us; for information on the Ecosystems Program, call (217)782-7940 or e-mail at ecoprg@dnrmail.state.il.us.

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