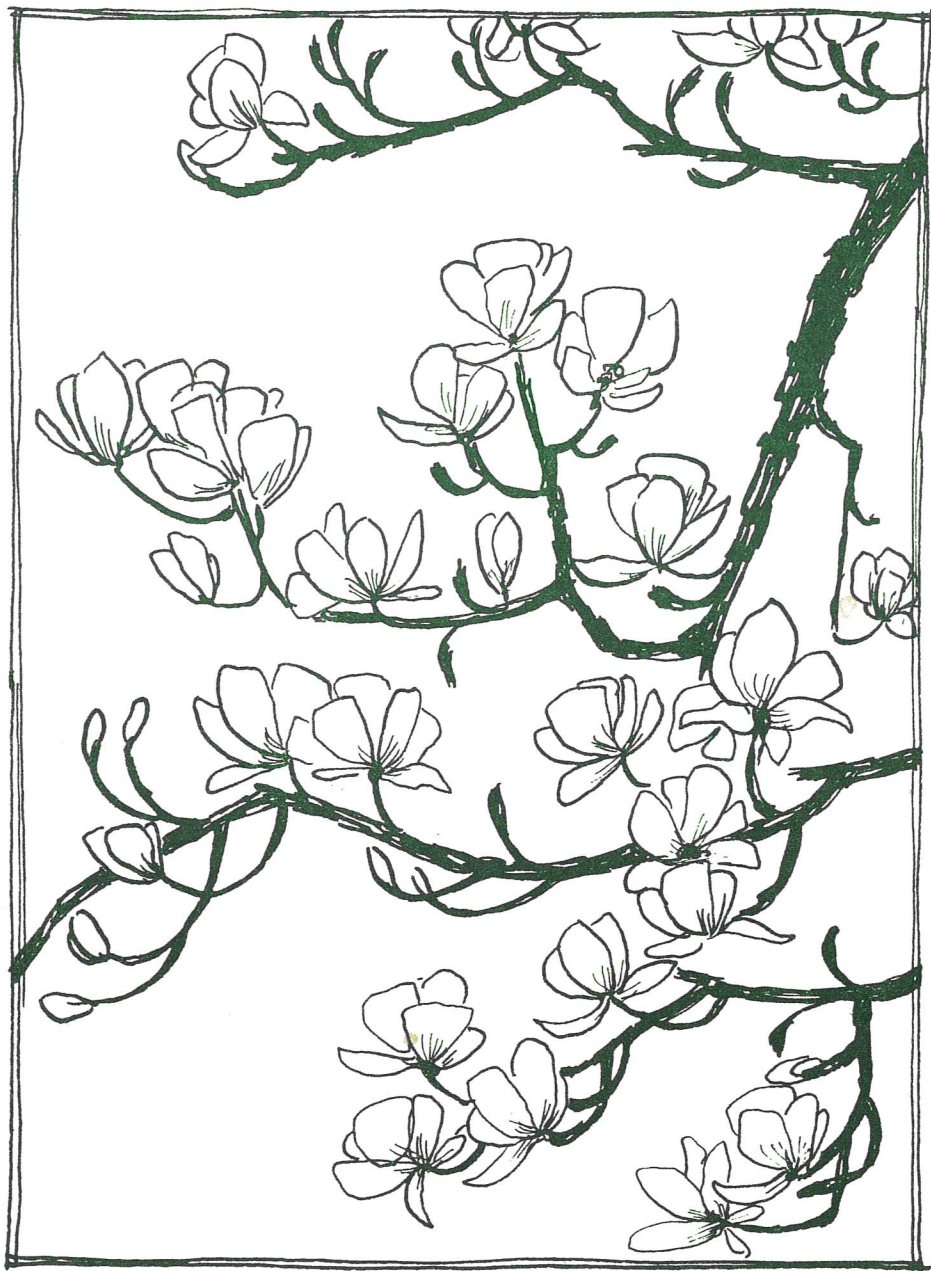




QUARTERLY

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POTTERF TELLS MEMBERS ANCIENT GLACIERS DICTATED INDIANA GEOLOGY, FORESTS, HUMAN PROGRESS

The Wisconsin Glacier gave all but 15 of Indiana's counties the character they have today and was responsible for the great forests which once covered the state.

Rex Potterf told the ACRES membership meeting, March 9th, that oak trees more than 150 feet high and 20 feet in diameter were to be found throughout glaciated Indiana. The glaciers depositing rock, soil and other earth debris, also created the rich agricultural lands of our state, he said.

The last ice cap, as it receded, left Lake Maumee - 1,000 square miles in area, 60 feet deep and extending from Defiance, Ohio, through New Haven, Indiana.

The melting ice cap drained through a huge river no one ever saw. The river cut what is now the valleys of the Maumee and Wabash rivers. The watershed later divided at Fort Wayne, diverting natural rainfall eastward to the Maumee and westward to the Wabash River.

Wherever there were depressions great or small in front of the ice sheet, they filled with water," Potterf said, "and this left many lakes and swamps."

The tremendous forest that once stood where Fort Wayne now stands "beggars any description adequate to its current understanding," he said. Almost impenetrable, the forest contained many varieties of deciduous and hardwood trees, great oaks often 20 feet at the base. Below the trees was a lush brush growth, and flowering plants of "strangely beautiful flowers."

"In the depthless soil of the Wabash River Valley there were at least 42 varieties of trees growing to a height of more than 150 feet. Hugh McCulloch traveled on horseback from Indianapolis to Fort Wayne in 1830. He observed that much of that journey was under a canopy of leaves and branches, and the boles of the trees extended 90 feet before the first limbs were produced.

The former librarian described the fruits, the animals and the minerals present in that day.

"Indigenous fruits were in prodigal profusion - wild plum, red and black haws, crabapples, gooseberries and many others. The first canal boat's cargo from Fort Wayne carried 324 barrels of cranberries to be sold in eastern cities.

"The Little River Wet Prairie of swampy south of U.S. 24 to Huntington was a veritable botanical garden filled with aquatic birds."

Potterf went on to explain how the forest and its products made possible the transition from pioneer to civilized life, primarily through the industries built upon wood in such abundance, upon Indiana clay, marl sand and coal.

The black swamp or Maumee Lake bottom east of Fort Wayne was covered by a thick hardwood forest and by marshes or wet prairies. Drainage was poor and a lack of road-making materials blocked immigration by wagon from the east.

"These factors caused Hoosiers to turn to canal building in the late 1820's and 1830's," Potterf said.

ACRES QUARTERLY

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THREE FIELD TRIPS PLANNED; ACRES WILL HOST FORT WAYNE ACADEMY OF SCIENCE, JUNE 2ND

Saturday, April 28:

An all-day trip to Cabin Creek Raised Bog in Randolph County, Indiana, and to Hanging Rock, a unique limestone outcropping not far from Huntington. The former is very unusual as bogs go and will intrigue even the seasoned naturalist with its different flora. Hanging Rock offers a type of special habitat also, and bears several uncommon life forms. We will meet at the residence of Robert Weber in Indian Village (3649 Algonquin) at 9:00 a.m. A pooling of riders in automobiles may be arranged then. Bring sack lunches and be prepared for some wading if you want to see all of Raised Bog.

Saturday, May 12:

Barnes Swamp which lies east of Angola, Indiana, will be the focal point. Some of our members who have been here have pronounced it "the most satisfying swamp" they have visited in the Midwest. At that date, there should be a number of flowering plants in bloom. One or two other brief stops at some nearby natural areas will be included. Bring lunches and be prepared for wading. Old shoes and socks are suggested for this, with an extra pair of shoes and socks in the car. Boots are generally inconvenient. Meet at 9:00 a.m. in the main parking area at Concordia Senior College, Indiana Route 427 north of the city.

Saturday, June 2 (Joint trip to Spurgeon Reserve with Fort Wayne Academy of Science):

The final spring field trip will include ACRES own Edna W. Spurgeon Woodland Reserve in Noble County as the chief area. The assorted upland, muckland and woodland should be in their peak of spring blossoming. Probably some of the best lighting for effective photography of the deep woods will be obtainable then. We'll also revisit the small unspoiled bog near the Washington Center School on our return home. Probably no better development of sphagnum and certain rushes occurs anywhere in Indiana. We'll picnic together with our individual lunches. Meet in the main parking area at Concordia Senior College, 9:00 a.m.

ONE HUNDRED AND FORTY ATTEND ACRES' WINTER FILM, "LIVING DESERT"

The first membership meeting of 1962, January 12, for ACRES included the showing of the Walt Disney film, "The Living Desert."

About 140 members and friends attended the meeting, held at Kekionga Junior High School; and eight persons became ACRES members on the occasion.

At the time the Spring issue of the Quarterly was prepared, ACRES membership stood at 163, the highest since ACRES incorporated in March, 1960.

With the coming of spring, the thoughts of ACRES members turn even more toward the outdoors. No doubt you are anxious as I am to get out once more to see the spring flowers and to drink in the unpolluted woodland airs. ACRES has planned a series of spring field trips. We hope you will join us on these (See preceding page). Invite your friends: this is a good way to interest them in our organization.

Which brings me to an almost perennial topic: the importance of conservation. Our need today is more acute than ever. Expanding populations make a two-fold demand on the land: there are more people who need to be supplied with natural areas to which they can retreat from the sidewalk and asphalt jungles of our cities; and their very need for living space infringes on the natural areas surrounding our large cities.

How many beautiful areas have fallen since the war before the onslaught of the subdivision planner and his bulldozers! Of course, people need places to live, but we also need to get out of city crowding.

Subdivisions should be planned; efforts should be made to provide parks in them and green belts around them and areas of unusual botanical significance should be recognized and spared.

Europeans have long followed the pattern of providing green belts around their cities. The Forest Preserve District of Cook County set up just after World War I provides a priceless green belt around the City of Chicago.

New York State is setting aside millions of dollars to acquire parks and recreational areas. A similar program is being considered in Pennsylvania. President Kennedy recently delivered a special conservation message in which he proposed a matching federal-state program for development of outdoor recreational programs.

There is still time to protect natural areas in Indiana. Many of them remain untouched, but most of these are destined to be swallowed up in a generation unless some action is taken soon.

I suppose the number one conservation problem in Indiana is the preservation of the Indiana dunes. How unfortunate that there has been so much misunderstanding and misrepresentation in this controversy. And how unfortunate that the leadership in the preservation of this unique natural area has had to be spearheaded by those outside the state, while many Hoosiers argue in favor of leveling the dunes and developing industry.

I am afraid we do not appreciate our heritage. I am almost reminded of the fate of the big game animals in Africa. The people of the developing nations there do not appreciate their importance. They are being ruthlessly slaughtered for temporary gain; they provide an easy supply of fresh meat. It is only the people outside these countries who appreciate their importance and who are clamoring for their protection.

There are problems closer to home, and these are the immediate concerns of ACRES. We have a fairly complete survey of northeastern Indiana; we know what areas should be set aside, but we don't quite know how to get the action we feel is so necessary. You can help by enlisting others in our organization. We don't ask that our members contribute large sums or that they be totally and directly active in conservation projects. But we do need public support to demonstrate that there are people in Indiana who are interested in the preservation of our natural areas.

We hope that our members will support not only our efforts to set aside natural areas, but also those of others. The Allen County Plan Commission will consider a county park system this year, and we think that the time to do this is now. We hope that a park system will not only provide recreational space but also that some areas in the parks will be left undisturbed as natural areas.

Turning to another topic, have you seen our ACRES column in the magazine section of the Sunday JOURNAL GAZETTE? It's entitled "Of Bogs and Logs" and appears every other week. Articles scheduled for April and May are: April 8, "Hepatica"; April 22, "Dogtooth Violet"; May 6, "Deer"; May 20, "Rattlesnakes."

Tell your friends about the column. Invite them to read it and to join ACRES. If you have children in school, ask them to call their science teacher's attention to ACRES column and Quarterly.

DR. JOHN W. KLOTZ

INDIANA'S LAKES by William R. Eberly Manchester College

"The lakes of northern Indiana are the brightest gems in the corona of the state. They are the most beautiful and expressive features of the landscape in the region wherein they abound."

So wrote a prominent scientist some sixty years ago about one of Indiana's most valuable natural resources, her lakes.

A recently published directory lists 868 lakes in the state of Indiana. A lake is defined as a body of water 5 acres or more in size. If the numerous smaller bodies of water are counted the total becomes considerably larger. Included in this list are both natural and artificial lakes. Man-made lakes include reservoirs, gravel and stone pits, dammed-up drainage channels and rivers, and large "ponds." These artificial lakes are most numerous in areas where natural lakes are scarce or absent.

Natural lakes are of several types. Isolated segments of an abandoned river channel which retain water are known as ox-bow lakes. They occur, for example, in the lower Wabash valley. There are many other kinds of natural lakes found in various parts of the world (one recent authority listed 75 types) but practically all of Indiana's natural lakes are the result of glacial action thousands of years ago.

Glacial lakes are concentrated in the northern section of the state. There Steuben and Noble counties have 97 lakes each, Kosciusko has 74 and LaGrange 57. Following close behind are LaPorte with 30, Whitley 26, Fulton 22, Marshall 20, and St. Joseph 19. Most of these lakes occur in areas of glacial deposits known as moraines. The most extensive "lake belt" is in the Packerton moraine which extends diagonally from the n. e. corner of the state down as far as Cass county. Another aggregation of lakes occurs in the Maxinkuckee moraine which extends southward through St. Joseph, Marshall and Fulton counties.

Two characteristics of lakes of interest to most people are size and depth. Compared with the largest lake in the world, Lake Superior, whose area is 31,000 square miles, our Indiana lakes seem quite small. The largest natural lake is Wawasee (2618 acres) followed next by Maxinkuckee (1650 acres) and James (1034 acres). The majority of our lakes are less than 500 acres.

Lake depths are quite often exaggerated, especially by those who live permanently around their shores. A geographer, writing of the lakes of Steuben County in 1830, said of one of them: "The bottom, as I have been told, was sought in vain with a line of 250 yards." There are some really deep lakes in the world, but none are bottomless. Lake Baikal in Siberia is 5600 feet deep. Deepest in North America is Great Slave Lake (Canada) which is 2500 feet deep. The deepest lake in the United States is Crater Lake, 2000 feet deep. The deepest Indiana lake is Tippecanoe, 120 feet, while only 2 or 3 others are deeper than 100 feet. A large number of lakes are 50-60 feet in depth.

One of the commonest type of glacial lake is the kettle-hole or pot-hole lake, more properly known as an ice-block lake. These were formed by large chunks of ice which broke off from the main body of the glacier and were subsequently buried by gravel and mud. The insulating effect

INDIANA'S LAKES (Continued)

of the dirt cover probably prevented the melting of the ice block for many years during which time the ground surface above was smoothed over some. When the ice block finally did melt, it left a water-filled depression roughly the same shape and size of the original ice block. This accounts for the rather uniform depth of many lakes of this type since the ice blocks were broken off the same glacial ice sheet. These lakes tend to have a narrow shore line, steep sloping sides of the basin, and a rather extensive flat bottom. Many lakes of this type are known, such as Mc-Lish, Still, Shock, Myers, etc., to name a few.

Lakes such as Manitou and Webster are semi-artificial lakes formed when power dams installed in the outlets raised the water level, flooding extensive shallow areas between pre-existing small lake basins. Large shallow lakes like Chapman and Wawasee are low surface areas which collect water that runs off large watersheds or seeps into the lake through the soil. Tippecanoe is an old drainage channel that has become clogged up at the lower end.

Lakes are really rather temporary features of our countryside. They are right now in the act of disappearing. Lake outlets are slowly eroding their channels deeper, thus lowering the lake surface. Man-made drainage has severely reduced the lake areas. In fact, the largest lake ever to exist in historic times in Indiana (English Lake in Starke County) was completely drained with the dredging of the Kanakee in the last century. Mud and clay sediments washed into a lake from the outside accumulate in the bottom of the lake. Shore vegetation grows out into the lake, converting the shallow beach into a swampy shore. And, perhaps most important, remains of plants and animals produced in the lake accumulate in the bottom sediments at an alarming rate. A few years ago it was estimated that the original basin of Winona Lake was about 40% filled in. Every bog and muck deposit represents a filled-in lake bed of years gone by.

One author wrote, "A lake begins to die the moment it is born. There are more beds of extinct lakes in northern Indiana today than there are existing ones." Still another wrote, "Of all the features of the landscape, lakes are the most ephemeral. As long as they remain they will continue to contribute to the service and delight of man, by affording means for that relaxation and healthful pleasure which the conditions of modern life demand." These words are just as true today as they were when written in 1897.

That lakes today are the focal points for many of our recreational pursuits there is no doubt. Swimming, boating, water-skiing, fishing and other water sports involve more persons than any other category of recreational or sporting activity in America. But a lake is also a rather autonomous little universe within whose confines countless strange and unique plants and animals carry on their varied life activities, generation after generation, year after year, unmindful of the re-creating that is taking place on the ceiling of their world. The scientific pursuit of knowledge of the mysteries of life under water is called Limnology. At the present time, limnological research is the prerogative of those large universities that make a practice of investigating everything. Even the word is a part of very few people's vocabulary. But perhaps limnologists will finally "come into their own" when people come to realize and appreciate that there is more to a lake "than meets the eye."

KEEP YOUR REGION'S ECOLOGICAL SPECTRUM INTACT

by Richard H. Pough, President, Natural Area Council,
and Member, ACRES National Advisory Board

In most regions the typical landscape is made up of a matrix of distinctive plant communities. Wet areas support one set of plants, dry areas another. The vegetation of sandy soils differs markedly from that of heavy clay soils. Acid soils, limey soils, serpentine soils, rocky soils - each are characterized by their own special plants. Together, these different communities compose a region's biotic spectrum.

To the scientist, be he botanist, zoologist or ecologist, each of these communities in its typical form is as distinctive as the colors in the spectrum, even though as in the spectrum one merges with another where they meet. Each has its own special plants that have been adapted to the conditions peculiar to the site it occupies. Animal life, being dependent on plants for food and shelter, also reflects these differences in what in their case is called habitat.

As such important controlling factors as rainfall, growing season and temperature vary from county to county, the biotic communities of each region are unique. The living organisms that compose them represent unique locally adapted varieties or races of the species to which they belong. To lose even one is to impoverish the region's educational and scientific resources.

It is these biotic communities that are the true laboratories of all the life sciences. It is only here that an organism can lead a normal life and survive generation after generation. Only here do its habits and attributes have meaning. If we are to learn more of the world of living things, we must reserve samples of these communities as outdoor laboratories for the scientists of tomorrow as well as today.

First hand field experience with living organisms in a state of nature, where each poses a thousand unanswered questions, is still a better breeding ground for future scientists than TV programs, classrooms or books.

Every county owes it to its scientists, naturalists and teachers to set up a county-wide series of Living Museum units so that at least one undisturbed example of each biotic community characteristic of the county will be preserved over the centuries ahead.

Planning commissions should appoint a panel of local scientists to identify such areas early in their studies so that plans can reflect the need to safeguard these facets of the region's natural history heritage.

Garden clubs and other civic groups can help by seeing what can be done to acquire the areas by gift or purchase and place them in the care of suitable educational institutions or interested civic associations.

Some will undoubtedly be suitable for parks while others can probably be preserved simply by obtaining an easement from the present owner that would prevent any subsequent owner from altering the natural character of the area. Such reserves will also constitute attractive open spaces over the centuries ahead.

THIS IS
ACRES SPECIAL
MEMBERSHIP ISSUE

Our dedication to acquire and preserve natural areas cannot be delayed. Every effort and talent must be bent to this end or the land to save and the time to do it in will pass away. Your membership is vital! It is your "OK" to the basic purposes of natural area preservation for our community.

Join with us, work with us. Participate in our field trips and meetings if you can. SUPPORT OUR GOALS! Our membership goal is 100% renewal and doubling our numbers. Renew your membership and help us add a new member to ACRES. The return envelope enclosed is for your convenient and prompt response. We heartily welcome you as a new or renewed member!

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