

DIVISION OF NATURAL AREAS AND PRESERVES

Richard E. Moseley, Jr.

Figure 16.1. Walter A. Tucker, naturalist and administrator from Columbus, devoted nearly 50 years during the mid-20th Century to preserving and protecting natural areas in Ohio. Photo by Jeffrey L. White as published in *The Wheaton Club Bulletin*, 1985.



The narrative of the Division of Natural Areas and Preserves is a story about people and their commitment to preserve and protect Ohio's unique natural areas and scenic rivers. Fortunately, since statehood, a few Ohioans have always been concerned about the destruction of our forests, waters, and other natural resources. From the naturalists of the early 1800's to those presently involved, all have had two qualities in common—dedication and a sense of urgency.

PRESERVATION PROGRAMS DEVELOP SLOWLY

Early preservation efforts began with passage of the Ohio Park District Law by the General Assembly in 1917. This Act allowed special districts to be created to conserve the natural resources of the state. Today's many fine natural area parks in the Metropolitan Park Districts of the state resulted from this early legislation.

In the late 1920's, garden clubs throughout Ohio began urging preservation of the state's natural communities. The Ohio Association of Garden Clubs, in particular, provided leadership in educating voters about conservation and preservation legislation. Their publication, *The Garden Path*, edited by Walter A. Tucker (Fig. 16.1) of Columbus, played a significant role in passage of early conservation legislation and in establishment of Ohio's State Parks. He played a major role in establishing the League of Ohio Nature Clubs, the Columbus and Franklin County Metropolitan Park



Figure 16.2. Dr. E. Lucy Braun, renowned botanist and ecologist from Cincinnati, coauthored the first list of natural areas in Ohio in 1926.



Figure 16.3. Dr. Edward S. Thomas, noted central Ohio naturalist, provided the motivation and expertise to have Cedar Bog purchased by the State of Ohio in 1942 as the first nature sanctuary in Ohio acquired by public funds.

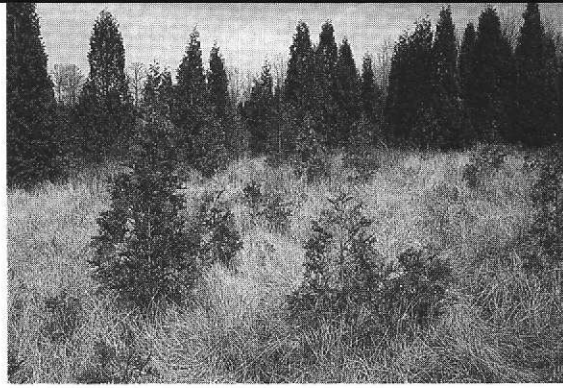


Figure 16.4. Cedar Bog Nature Preserve in Champaign County, a dedicated State Nature Preserve administered by the Ohio Historical Society, provides habitat for many threatened and endangered species. Photo by Charles C. King, May 1970.

The Divisions

District, and the Ohio Chapter of The Nature Conservancy, all of which have over the years preserved thousands of acres of natural lands.

The initial published list of natural areas in Ohio was issued in 1926 having been developed by E. Lucy Braun (Fig. 16.2) of Cincinnati and Lynds Jones of Oberlin. Dr. Braun later became directly involved in saving several natural areas in southern Ohio. In 1942, through the efforts of Edward S. Thomas (Fig. 16.3) of Columbus, Cedar Bog in Champaign County was purchased by the State. This was the first area acquired with State funds specifically for a nature sanctuary to assure protection of its unique features for natural history purposes. Dr. Thomas had

learned of a plan to drain this special area and use it as a pasture. He convinced Governor John W. Bricker that Cedar Bog (Fig. 16.4) had greater intrinsic value as a nature preserve than as a cow pasture; and thus, with the Governor's help, the area was acquired by the Ohio Department of Public Works, and the Ohio Historical Society was designated as administrator.

An important step toward organizing the efforts to preserve Ohio's vanishing natural areas began in 1958 when the Ohio Biological Survey, under the leadership of Dr. Charles A. Dambach, sponsored a natural areas inventory of the state. Dr. J. Arthur Herrick (Fig. 16.5) of Kent conducted this inventory known as the "Natural Areas Project, which resulted in a report, "Summary of Data to Date," in 1962. Revised in 1965, "Herrick's List" of natural areas provided a very important foundation for future preservation and legislation efforts in Ohio. Another revision was published in 1974.

The Ohio Chapter of The Nature Conservancy was

organized in 1958 and acquired Lynx Prairie in Adams County in 1959. Several other significant natural areas were acquired in the early 1960's, but by the mid-1960's, it was obvious that private efforts alone could not protect the unique natural features of the state. In 1966, the Ohio Chapter of The Nature Conservancy called for the creation of a State nature preserve system and formed a committee to work toward this goal. This effort resulted in 1967 in a resolution being adopted by the Ohio House of Representatives which expressed concern over the loss of Ohio's natural heritage and initiated a study by the Legislative Service Commission to determine the need for natural areas preservation by the State.

THE NATURAL AREAS ACT

As a result of this study, Senator Clara Weisenborn of Dayton in 1969 introduced Senate Bill 113, the "Ohio Natural Areas Bill." Upon enactment of the Natural Areas Act effective on 1 June 1970, the State of Ohio entered into a new program which not only provided protection of unique natural areas and features of the state, but also provided additional educational opportunities for Ohio's citizens and visitors.

This Act authorized the Ohio Department of Natural Resources to administer a system of State Nature Preserves and to acquire, dedicate, and accept the dedication of public and privately owned lands as State Nature Preserves. It authorized the Department to manage and protect them for educational and scientific use and for visitation by establish-



Figure 16.5. Dr. J. Arthur Herrick, botanist and ecologist from Kent, assembled and authored the famous "Herrick's List" of natural areas in Ohio in 1962, with revisions in 1965 and 1974.

1949-1989

ing rules and regulations governing their use. It also provided for a program of inventory, planning, and study of the Nature Preserves. This Act was considered not only to be one of the strongest pieces of natural resources legislation in Ohio at the time of its passage, but also has been used by many other states as a guide in drafting similar legislation in those states.

Furthermore, the Act created the Ohio Natural Areas Council, a citizen advisory body, which reviews and makes recommendations on acquisition and dedication of State Nature Preserves. The Council advises the Department on the establishment of criteria, inventories, registries, plans, and rules and regulations pertaining to these Preserves. It also makes recommendations on the extent and type of use and visitation to be permitted within each Preserve. The Council consists of eight members, originally with the ODNR Director serving as a nonvoting ex-officio member. The other seven members are appointed by the Governor and serve four-year terms. The Natural Areas Act requires the Governor to appoint one representative for natural history museums, one for metropolitan park districts, one for colleges and universities, and one for outdoor education programs in primary and secondary schools. All members must be persons interested or active in natural area preservation, and no more than four may belong to the same political party. Governor James A. Rhodes appointed the first Council during the interim period between passage of the bill and its effective date on 31 August 1970: Richard H. Durrell, a geologist from the University of Cincinnati; Jeanne Hawkins, an at-large member from Toledo; Paul E. Knoop, Jr., Director of Aullwood Audubon Center near Dayton; William B. Price, an at-large member from Murray City; Dr. David A. Rigney, an at-large member from Worthington; Dr. David H. Stansbery, Curator of Natural History at the Ohio State Museum; and Bertalan Szabo, Chief Naturalist with Akron Metropolitan Park District.

The Council started its work quickly and held its first meeting in Columbus on 15 September 1970 just two weeks following the effective date of the Act. This meeting was called by ODNR Director Morr who served as Acting Chair. He established as an initial goal for the Council the develop-

ment of a priority system for the acquisition of areas. This was a necessity in that the General Assembly, nearly a year earlier, and prior to establishment of the program, had already authorized \$400,000 in capital improvements funds for natural areas acquisition. Unless the Department acted within a year, these funds would be lost to the program. Because of this urgency, the Council met again in six days to discuss acquisition priorities. With Dr. David Stansbery being elected the first Chair, Richard Durrell as Vice Chair, and Jeanne Hawkins as Secretary, the Council began its work of establishing a firm foundation for the Natural Areas Program. The Council's dedication to this fledgling effort was reflected by the frequency of meetings—nine in the first ten months of the program.

As a result of priorities established at these early meetings, the Department began acquisitions in late 1970. With the initial appropriation of \$400,000, the Department acquired 14 properties totaling 632 acres on six natural areas, an auspicious beginning.

The Department established a Natural Areas and Scenic Rivers Planning Section in the Office of Program and Planning to administer the program and to provide technical assistance to the Natural Areas Council. Richard E. Moseley, Jr., of the Division of Parks and Recreation, was appointed on 22 May 1970 to be Coordinator of this new Section.

The Council established a classification system for State Nature Preserves which is based primarily upon the quality of unique features present and the capacity of an area to be used without being degraded. Preserves were initially classified as Scientific, Interpretive, or Scenic, with Scientific Nature Preserves having the most restrictive use and Scenic having the least restrictive use. A fourth classification, Ecological Research, was added in 1975 to provide opportunities for manipulative research. None of the four types is to be used for mass-recreational activities such as swimming, boating, camping, or organized sports. State Nature Preserves are better suited for more passive recreational pursuits such as bird watching, hiking, nature hobbies, art, photography, and other similar activities which are compatible with preservation of the areas. State Nature

greater enjoyment, beauty, and usefulness to Ohio's citizens. This Act defined the scope of the program and specified procedures which are to be followed in establishing a Scenic Rivers System for the State of Ohio. Art Woldorf of the Ohio Water Commission provided staff coordination and administrative services. In 1970, the program was transferred to Natural Areas and Scenic Rivers Planning in the Office of Program and Planning. The Act was amended on 17 May 1972 to provide for the additional designations of Wild Rivers and Recreational Rivers and to bring Ohio's program into harmony with the federal program. These classifications, in spite of the apparent literal meaning of the terms, are intended to differentiate between rivers which are presently in various degrees of natural condition, rather than to represent patterns of intended use.

A "Wild River Area" is one which is generally inaccessible, except by trail and occasional road crossings. It is essentially primitive in condition. A "Scenic River Area" includes those rivers, or sections of rivers, that have river banks which are still largely primitive. The shorelines are for the most part undeveloped, but the river is more accessible by roads. A Scenic River corridor is in good ecological condition, but is not quite as primitive as a Wild River Area. The "Recreational" classification is designed to provide for the designation of river lengths which may not possess the high degree of natural quality typical of Wild or Scenic River Areas, yet which warrant protection due to their historic or cultural attributes. The influence of humans is more apparent on rivers of this type which are generally even more accessible than Scenic Rivers.

River classification under one of the three categories is determined after evaluation of a number of criteria, including stream length, vegetative cover, flora, fauna, water quality, urbanization, present use, accessibility, and potential for recreational development. The procedure for designating a river requires the Director of ODNR to publish an intention to declare an area as a Wild, Scenic, or Recreational River in area newspapers, and to send written notice to all local legislative authorities in the area and to the directors of relevant departments of State government. After thirty days, the declaration as a Wild, Scenic, or Recreational River

is entered into the ODNR Director's Journal, and the river is included in the State System. Following designation, a ten-member advisory council is appointed for each river. The council is comprised of representatives of local governments, landowners, conservation groups and individuals interested in river preservation.

The goal of the Ohio Scenic Rivers Program is *preservation*, not recreation. In other words, the goal is to protect the natural environment of a stream from uses and activities which would destroy its aesthetic and natural attributes. Preservation, however, involves more than acquisition of noteworthy areas of natural significance along a river corridor and their management as nature preserves or wildlife refuges. It also involves preservation of agricultural lands within the river corridor. A key element of preservation, which is often overlooked, is the protection of property rights of landowners along the river. Without this element, preservation of any river is nearly impossible. Thus, preservation of a river is related not only to acquisition of a small percentage of the significant natural features which remain, but also more importantly, to preservation of the river corridor through local landowner and government cooperation by instituting and maintaining appropriate land-use practices. Concepts of river preservation are extremely complex, and in order to accomplish such a goal, involvement and cooperation is necessary at the local, State, and federal levels. Through utilization of these concepts, the Department has preserved 629 miles of river on ten streams in the state (Fig. 16.6). Nearly 3146 acres of land have been acquired by purchase or scenic easements along these Wild and Scenic Rivers.

THE PROGRAMS TAKE ROOT

During the early part of the administration of Governor John J. Gilligan, the Division of Planning was created by ODNR Director Nye. Both the Natural Areas and Scenic Rivers Programs were transferred to this new Division and established as the Natural Areas and Scenic Rivers Section. The Department through the advice and recommendations of the Natural Areas Council, established criteria for evalu-

ating natural areas and designating State Nature Preserves, inventoried existing State-owned lands to determine those which were worthy of such preservation, and established policies regarding management of natural areas. Management guidelines included policies for 1) administration and custody of the Preserves, 2) development of master plans, 3) land management practices on Preserves and buffer areas, 4) management of visitors and their uses of Preserves, 5) management of research, 6) publicity, and 7) facilities and structures.

In 1973, Director Nye, by Executive Order approved by Governor Gilligan, created the Division of Forestry and Preserves, which was assigned management of all properties purchased as State Nature Preserves, not contiguous to State lands managed by either the Division of Parks and Recreation or the Division of Wildlife. Those agencies administered Preserves contiguous to their holdings. Management and development plans for all State Nature Preserves were jointly prepared by the Natural Areas Planning Section, and the Recreation Planning Section of the Division of Planning and the Division involved in implementing the plans. Enforcement of rules and regulations pertaining to management and use of the Preserves became the responsibility of the managing agency for each area.

The Department began its acquisition program for State Nature Preserves with the purchase of Fowler Woods on 24 September 1971, and this 133-acre beech-maple swamp forest in Richland County became Ohio's first State Nature Preserve purchased under the Natural Areas Act (see Figure 1.9 on page 5). The Department also acquired Little Rocky Hollow in 1971, and Caesar Creek Gorge, Cranberry Bog, Adams Lake Prairie, Seymour Woods, and Clear Fork Gorge in 1972. Six areas were acquired in 1973 including Eagle Creek, Blackhand Gorge, Shallenberger, Rockbridge, Gahanna Woods, and Sheick Hollow. Stage's Pond, Irwin Prairie, and Desonier were acquired in 1974; while Christmas Rocks, Goll Woods, and Mentor Marsh were added to the system in 1975. During this five-year growth period, the Department acquired 19 preserves containing 3398 acres and costing \$1,480,618.

In addition to this sustained acquisition effort by the

Figure 16.7. The Little Miami River is Ohio's first State Scenic River, having been designated on 23 April 1969. A portion of it was also designated a National Scenic River on 23 August 1973. Photo by Alvin E. Staffan.



Department, several public and privately owned areas were dedicated as State Nature Preserves during this period. The Columbus and Franklin County Metropolitan Park District dedicated the 54-acre Walter A. Tucker State Nature Preserve at Blacklick Woods Metro Park, the 319-acre Edward S. Thomas Preserve at Sharon Woods Metro Park, and 206 acres at Highbanks Metro Park. The Division of Parks and Recreation dedicated 200 acres at Hueston Woods State Park, 255 acres at Clifton Gorge in John Bryan State Park, 51 acres of wetlands at Kiser Lake State Park, and 786 acres at Tinkers Creek State Park. Knox Woods (30 acres) was dedicated by the Knox County Commissioners in 1973; and Mentor Marsh, a 621-acre tract owned by the Cleveland Museum of Natural History, became the first privately owned area dedicated under the Natural Areas Act. Such dedications of land to ODNR would have been unlikely without a Natural Areas Act and a viable program to implement such legislation.

Much of the early success of the Natural Areas Program is attributable to the interest and concern for this program demonstrated by Director Nye and the General Assembly. The latter had appropriated \$1,340,000 in capital improvements funds and provided nearly \$205,000 in operating funds since the program's inception in 1970 to 1975. The operation of a successful public program does indeed rely upon the availability of funds to carry out what has been mandated in the legislation. Without this necessary funding support by the General Assembly, the Natural Areas Act would have been little more than just a legislative gesture.

During this same period, the Scenic Rivers Program began to grow in both numbers of rivers designated and citizen support for river preservation. The Little Miami River became Ohio's first State Scenic River (Fig. 16.7) on 23 April 1969 when 81 miles of this scenic stream was designated by ODNR Director Morr. In September 1969, an additional 13 miles was designated making all of the stream from its headwaters in Clark County to its confluence with the East Fork in Hamilton County a part of the program. In August 1973, the portion of the river between Clifton in Greene County and Foster in Warren County was desig-

nated a scenic component of the national system; and in January 1980, the portion from Foster to the Ohio River was designated a recreational component of the national system. The Sandusky River was incorporated into the Ohio Scenic Rivers Program on 5 January 1970. The 65 miles designated included that portion of the stream from United States Route 30 in Upper Sandusky downstream to Roger Young Memorial Park in Fremont. These two Scenic Rivers became the nucleus for the State System.

The Olentangy River was designated on 24 August 1973 and included 22 miles of stream from Delaware Dam in Delaware County to Wilson Bridge Road at Worthington in Franklin County. Little Beaver Creek in Columbiana County became Ohio's first Wild River on 15 January 1974 and it was designated a National Scenic River in October 1975. Approximately 20 miles received this designation with an additional 16 miles being designated as Scenic. Two days later, the Grand River in Ashtabula and Lake Counties was also declared a State Wild and Scenic River. The 33 miles of Scenic River included that portion of the stream from United States Route 322 to the covered bridge at Harpersfield. The 23-mile Wild segment began at the covered bridge and traversed downstream to the Norfolk and Western Railroad bridge south of Painesville.

In 1974, approximately 25 miles of the upper portion of the Cuyahoga River was designated a State Scenic River. The Maumee River was also designated that year and had the distinction of being the first stream to have a segment designated as a Recreational River. Approximately 53 miles of river between Defiance and Perrysburg received this designation while the 43 miles of stream from the Ohio-Indiana state line to Defiance was declared Scenic.

The eighth and last stream designated during this period became perhaps the most controversial. On 1 July 1975, ODNR Director Teater declared the Stillwater River in Darke, Miami, and Montgomery Counties to be a Scenic and Recreational River. However, because of landowner opposition and the resulting court case, *Falknor v Teater*, the Scenic portion of the river, nearly 77 miles, was dedesignated in July 1976. Only the ten-mile segment of Recreational River from Englewood Dam to the Stillwater's confluence with the

Great Miami River was allowed to stand by the court. This stream was later redesignated Scenic in October 1980 as were portions of Greenville Creek, its tributary, in April 1982. Two additional rivers came into the system much later, the Chagrin River (49 miles) was designated in July 1979 and 82 miles of Big and Little Darby Creeks were designated Scenic in June 1984.

CREATION OF THE DIVISION

Initially, management of State Nature Preserves and Scenic Rivers created no critical problems. However, as acquisitions increased, management problems moved to the forefront. It soon became apparent that existing strategies drastically needed to be altered for the Department to maintain and protect adequately these unique resources. The programs had matured sufficiently that a definite commitment was required to initiate sound management and protection programs for all areas. In view of this situation, ODNR Director Teater created by Executive Order a new Division of Natural Areas and Preserves on 7 February 1975. This Executive Order was approved by Governor Rhodes and filed with the Secretary of State on 6 March 1975. Richard E. Moseley, Jr. (Fig. 16.8), Administrator of the Natural Areas Planning Section in the Division of Planning, became the first Chief of this new Division on 20 July 1975. Guy L. Denny, former Chief Naturalist and Executive Assistant in the Division of Parks and Recreation, was selected by Moseley to be Assistant Chief of the new Division.

In order to provide the new Division with statutory permanence necessary to carry out the long-range goals of the Natural Areas and Scenic Rivers Programs, legislation was introduced into the 111th General Assembly in July 1975. After lengthy hearings, Amended Substitute House Bill 972 was passed on 29 April 1976 and was signed into law by Governor Rhodes on 2 June 1976 (Fig. 16.9). This bill basically did the following:

- 1) Created the Division of Natural Areas and Preserves.

Figure 16.8. Richard E. Moseley, Jr., first Chief of the Division of Natural Areas and Preserves, 1975 to the present.





Figure 16.9. Governor James A. Rhodes (seated, center) signs into law the Natural Areas Act on 2 June 1976 creating the Division of Natural Areas and Preserves. Also in attendance from left to right were Representative Sam Speck, sponsor of the bill, from New Concord; Richard E. Moseley, Jr., ODNR Director Teater, and Senator William H. Mussey, sponsor of the bill, from Batavia.

- 2) Changed the name of the Division of Forests and Preserves to the Division of Forestry.
- 3) Created the position and duties of the Chief of the new Division.
- 4) Allowed rules to be adopted to protect Natural Areas and Scenic Rivers lands owned or managed through easement, license, or lease by the Department.
- 5) Named the Division Chief instead of the ODNR Director as the ex-officio member of the Ohio Natural Areas Council.
- 6) Created the position and authority of the Preserve Officer within the Division.
- 6) Increase the number and quality of ecologically significant Natural Areas being preserved.
- 7) Increase the number of streams protected in the Scenic Rivers System.
- 8) Develop river-corridor management plans for all Scenic Rivers.

The responsibility for establishing and managing Natural Areas and Scenic Rivers for the Department was thus given to the Division. All Nature Preserves and lands adjacent to Scenic Rivers which were administered by other Divisions were transferred to the new Division.

In an effort to carry out the responsibilities and obligations in meeting its goals of preserving Ohio's natural heritage, the Division formulated the following objectives:

- 1) Establish a comprehensive statewide inventory and registry of all ecologically significant areas in the state.
- 2) Develop an effective public education program to promote an awareness, understanding, and appreciation for the Natural Areas and Scenic Rivers.
- 3) Establish an effective protection program for all areas administered by the Division.
- 4) Develop a baseline data bank upon which sound Scenic River and Preserve management decisions can be based.
- 5) Establish a program through which all Preserves and Scenic River Areas can be developed for use without impairing their inherent natural values.

Initial organization of the Division continued the Natural Areas Planning and Scenic Rivers Planning Sections as before the transfer from the Division of Planning. In addition, Natural Areas Management and Scenic Rivers Management Sections were created. The first Administrators of these Sections were Steve Warner in Natural Areas Planning, Edward Salabsky in Natural Areas Management, W. Stuart Lewis in Scenic Rivers Planning, and Steve Goodwin in Scenic Rivers Management.

REORGANIZATION IN 1977

This organizational pattern continued until 1977 when the Division was reorganized into five Sections to integrate totally the Natural Areas and Scenic Rivers Programs: Administration, Staff Operations, Field Operations, Technical Services and Natural Heritage Program.

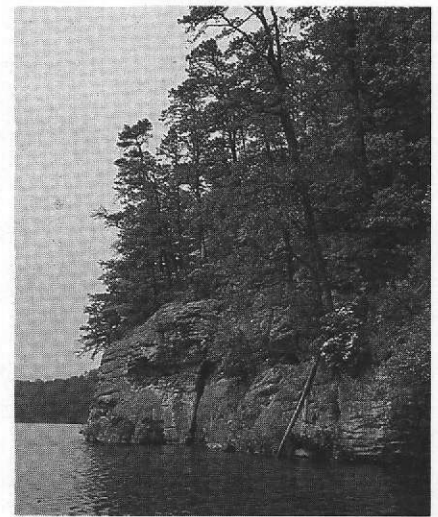
The Administration Section is responsible for the overall management of the Division and includes the Chief, Assistant Chief, accountant, and secretaries. Staff Operations (now known as Preservation Services Section), headed by Steve Goodwin, is responsible for all real estate activities and engineering coordination. Field Operations is responsible for the day-to-day operations of all Nature Preserves and Scenic River access areas including land management, maintenance, and interpretive programming; it was administered by Jim McGregor and now by William Loebick, who became Administrator in July 1980. The Technical Services Section (now known as the Scenic Rivers Section) is headed

by W. Stuart Lewis and basically is responsible for the Scenic Rivers Program and the technical services provided to local governments and landowners along the Scenic Rivers. The Natural Heritage Program Section was originally administered by Robert McCance and is responsible for the inventory and data management of Ohio's rare and endangered species, unique geological formations, and unusual plant and animal communities. It had been created in 1976 by The Nature Conservancy under contract with ODNR; and in October 1977, it was transferred to the Division from The Nature Conservancy. The Natural Heritage Program was reorganized in March 1989 into three work units—the Data Services Unit headed by Dr. Patricia Jones, a Zoological Inventory Unit supervised by Dan Rice, and a Botanical Inventory Unit headed by Allison Cusick. A Research and Monitoring Unit was also created as a part of this reorganization and is headed by Jennifer Windus.

In the Division's first year, six new Nature Preserves were added to the State system, five by dedication and one as a combination gift/purchase. The latter, Lake Katharine, became the largest preserve in the system with 1470 acres. It was initiated via a gift of 712 acres from James J. McKitterick, Edwin A. Jones, and D. Brooks Jones. Their gift became the State match for a grant from the federal Land and Water Conservation Fund which was used to purchase an additional 758 acres. Lake Katharine (Fig. 16.10), with its large size and rugged terrain, quickly became a very popular Preserve. The five other Preserves were Newberry Wildlife Sanctuary, Greenbelt Preserve, Spring Beauty Dell, and Trillium Trails Preserve as dedicated by the Hamilton County Park District, and Headlands Dunes at Headlands Beach State Park on Lake Erie as dedicated by the Division of Parks and Recreation.

In 1977, seven additional areas became State Nature Preserves. Kyle Woods and Siegenthaler Esker were gifts while Sharon Woods, Conkles Hollow, Hach-Otis Nature Preserve, and Cedar Bog were dedicated by their owners. The most noteworthy acquisition was Old Woman Creek Sanctuary in Erie County. This project, which began in January 1977, initiated a four-year acquisition program to preserve the largest remaining undisturbed freshwater

Figure 16.10. Lake Katharine State Nature Preserve in Jackson County is the largest in the system owned and administered by the Division of Natural Areas and Preserves.



estuary on the Lake Erie coastline. With financial support from the National Oceanic and Atmospheric Administration of the United States Department of Commerce and an \$800,000 appropriation from the General Assembly, the Division acquired 562 acres costing \$1,117,750, by far the most expensive preservation project in the first decade of the program. This Preserve later became a component of the National Estuarine Research Reserve System on 5 September 1980, and has the distinction of being the only freshwater estuary in the national system.

Although only three Preserves were acquired or dedicated during 1978, these areas were excellent additions including Culberson Woods, the largest forest on the Illinoian-age tillplain remaining in the state; Crooked Run, a backwater area on the Ohio River well known for its migratory waterfowl; and Bigelow Cemetery, a pioneer cemetery in Madison County which is one of the last prairie remnants of the Darby Plains. The latter area, dedicated by the Pike Township Trustees, has the distinction of being the smallest preserve in the system, a half acre. Although small, this pioneer cemetery still contains a healthy colony of the prairie wildflowers and grasses that once carpeted the Darby Plains prior to settlement.

THE ENDANGERED PLANT LAW

A significant legislative event in 1978 had an influence on the Division and its operation. Amended Substitute House Bill 908, the Ohio Endangered Plant Law, was passed on 25 April 1978 and became effective on 23 August 1978. This legislation resulted from the efforts of Mrs. Mary Ellen Philo, a retired elementary school teacher from Martins Ferry, who received the support of Representative and former Speaker of the House, A.G. Lancione of Bellaire. Her goal was two fold—to change the State Flower from the red

Refund or amount you owe	19	If line 18 is LESS than line 14, subtract line 18 from line 14 and enter the AMOUNT YOU OWE . Attach payment made payable to: TREASURER OF STATE OF OHIO. Please write social security number on check or money order.	19	-	0	-
	20	If line 18 is GREATER than line 14, subtract line 14 from line 18 and enter the overpayment	20	3	48	15
	21	Amount of line 20 you wish to DONATE to nature preserves, scenic rivers, and endangered species protection: \$2 <input type="checkbox"/> \$5 <input type="checkbox"/> \$10 <input checked="" type="checkbox"/> Other <input type="checkbox"/> Check box and enter amount on line 21.	21	10	00	
	22	Amount of line 20 you wish to DONATE to nongame and endangered wildlife species: \$2 <input type="checkbox"/> \$5 <input type="checkbox"/> \$10 <input checked="" type="checkbox"/> Other <input type="checkbox"/> Check box and enter amount on line 22.	22	10	00	
	23	Amount of line 20 to be CREDITED to 1990 tax liability. CREDIT ▶	23	-	0	-
	24	Amount of line 20 to be REFUNDED TO YOU (subtract total of lines 21, 22, and 23 from line 20) REFUND ▶	24	3	28	15

Figure 16.11. A portion of the 1989 Ohio Individual Income Tax Return which provides for the Income Tax Refund Checkoff Program for the Division of Natural Areas and Preserves (line 21) and the Division of Wildlife (line 22).

carnation to the white trillium and to seek strict legislation that would ban the picking and transplanting of certain wildflowers that were considered rare in Ohio. The legislation to change the State Flower received substantial opposition and failed to pass, while the endangered plant bill, A.G. Lancione's last, sailed through the House. A revised version of the former bill eventually passed and became law in November 1988 naming the large white trillium as the *State Wildflower*.

Although the original bill listed species which were to be protected, most of which were not rare, the final legislation assigned to the Division of Natural Areas and Preserves the authority to establish not only the list of endangered and threatened species but also the rules governing the protection and taking of listed species for commercial and scientific purposes. Representative Lancione noted that one of the biggest advantages of this legislation was its value in educating the public about the need to protect Ohio's natural heritage. Nearly two years were required to develop designation criteria for the list of endangered and threatened plant species, and the rules for implementing the program. The first list was formally adopted on 1 July 1980 and contained 207 endangered species and another 210 listed as threatened.

THE GINSENG MANAGEMENT PROGRAM

Because of its involvement with Ohio's endangered plants, the Division soon was assigned a new responsibility, the Ohio Ginseng Management Program. This program resulted from an international treaty which was developed at a meeting of 80 countries in 1973. The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) placed American ginseng on the list of plants and animals to be protected by the Convention. As a result, the United States agreed to monitor and regulate the trade in American ginseng, a plant which grows wild in Ohio and is commercially harvested in this state. In compliance with this treaty, the federal government required the State of Ohio to develop a Ginseng Management Program to monitor and regulate the harvest and trade of this species.

On 1 August 1979, Governor Rhodes issued an Executive Order which gave the Division of Natural Areas and Preserves the authority to develop and implement this program.

The program initially required only voluntary cooperation, but by 1983, the federal government required the adoption of legal rules to regulate the program. On 28 November 1983, the Division adopted these formal administrative rules which regulate the harvest season and provide a mechanism for dealers legally to export Ohio ginseng. The Division is also required to identify trends in collecting pressure and to conduct a research program to determine the status and biology of the plant in Ohio.

Ginseng is big business in the state and provides supplemental income to hundreds of collectors throughout Ohio. In the first eight years that the program has been administered by the Division, nearly 58,939 pounds having an estimated value of \$8,050,716 have been exported from the state. The goal of the Ohio Ginseng Management Program is to achieve a sustained yield of ginseng so that harvesting efforts will not be detrimental to survival of the species. If the Division achieves this goal and receives the cooperation of both collectors and dealers, then this wild crop will continue to be economically important in Ohio's future.

THE INCOME TAX REFUND CHECKOFF PROGRAM

Perhaps no program has had more impact on the Division than the Income Tax Refund Checkoff Program which began when Amended House Bill 5 became law on 15 July 1983. The signing of this bill by Governor Richard F. Celeste (see Figure 3.22 on page 30) was the culmination of over 25 months effort by Representative David Hartley of Springfield (the prime sponsor), the Division of Natural Areas and Preserves, the Division of Wildlife, and numerous conservation organizations to seek passage of this precedent-setting legislation. It created a system which permits Ohioans to contribute all or a portion of their State income tax refund either to the Nongame Wildlife Program of the

Division of Wildlife or to the Nature Preserve, Scenic Rivers, and Endangered Species Programs of the Division of Natural Areas and Preserves (Fig. 16.11).

Although this was the first tax checkoff program for Ohio, it was similar to those already established in more than 20 other states. The legislation, however, was not permanent in that the General Assembly had a six-year sunset provision in the bill which provided them an opportunity to reevaluate the program in 1989. Due to the success of the program, the General Assembly made the tax refund checkoff program permanent law in July 1987.

One unique feature of the legislation was a statement of legislative intent which is generally not a part of Ohio legislation. This bill specifically states, "Monies in the special account are not intended to replace appropriations for these purposes." This language was included to assure that contributions would make it possible to achieve additional preservation goals and projects rather than merely replacing tax dollars which would have been applied to these purposes.

Ohioans' first opportunity to contribute was on their 1983 tax returns which were filed between January and April 1984 and the first year was very successful for the Division with \$694,262 being raised by contributions from nearly 170,140 individuals (see Plate 17). The Division of Wildlife received nearly \$487,435 from their portion of the checkoff. Totally, the two Divisions received nearly \$1.2 million from 186,243 contributors in the first year of the program.

The Division announced in December 1984 its plans for expending the tax refund checkoff revenues received the first year. Proposed projects included acquisition of five State Nature Preserves and five Scenic River sites, new public use facilities at ten existing State Nature Preserves and Scenic River Areas, and the initiation of several new programs or expansion of existing programs within the Division. Some of the new programs included:

1) Scenic River Tree Planting—more than 38,000 tree seedlings were planted along the Olentangy, Little Miami, Stillwater, and Upper Cuyahoga Scenic Rivers in the spring of 1985.

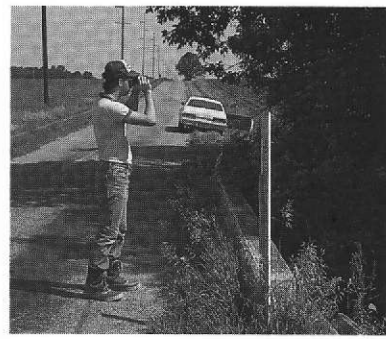


Figure 16.12. Bill Reiner, volunteer birder from Carroll, lends his expertise to the Ohio Breeding Bird Atlas project in Williams County. Photo by Brook McDonald, June 1987.

- 2) Streambank Stabilization—The Division initiated three demonstration streambank stabilization projects along the Stillwater Scenic River using natural materials to prevent erosion and to eliminate the need for structural intrusions or costly channelization along our scenic streams.
- 3) Statewide River Evaluation Program—This three-year program initiated a statewide scenic river inventory to determine waterways that potentially qualify for Scenic River status and protection.
- 4) Natural Areas Research Grants Program—The Division for the first time provided small research grants to encourage students and faculty at Ohio colleges and universities to study natural ecosystems on State Nature Preserves and Scenic Rivers. This research provides data which assists the Division to understand, manage, and monitor the State Nature Preserves, Scenic Rivers, and endangered species for which the Division is responsible. The Division provided funding for 21 research projects totaling \$30,537 in the first year of the program.
- 5) Ohio Breeding Bird Atlas—this is a five-year project to inventory and map the distribution of all bird species nesting in Ohio. It not only is an invaluable way to monitor bird populations and to detect environmental changes, but also is an excellent project to involve birders from all over the state in the Division's activities. Data collected during the life of the project will provide accurate and updated information on endangered, threatened, or potentially threatened species in Ohio. This information will also help the Division to identify fragile or unique habitats for possible future preservation. During the five-year study, over 500 volunteers (Fig. 16.12) participated in this program and inventoried 760 randomly selected sampling sites and 200 special areas scattered throughout all of Ohio's 88 counties.
- 6) Ohio Stream Quality Monitoring Program—this program, which began on a small scale in 1982, was significantly expanded when funds from the tax refund checkoff were allocated to the project. This program now involves more than 4000 volunteers from senior citizen groups, youth groups, civic organizations, local agencies, schools, and families who monitor more than 160 stations on Ohio's ten scenic rivers. The program involves a simplified approach to stream water quality evaluation through the collection and analysis of aquatic insects and other forms of aquatic life which are key indicators of the health and quality of the stream. This technique is easily

Figure 16.13. Scenic Rivers staff member Mark Dilley teaches stream monitoring techniques to school children in Olentangy Scenic River.



learned and requires simple, low-cost equipment making it attractive to schools and other youth groups (Fig. 16.13). The goals of the program are to increase Ohioans' sensitivity to and awareness and appreciation of the state's streams and their values.

During the first six years of the tax refund checkoff program, nearly \$3.8 million has been contributed to the Division; and with these funds, many new projects have been accomplished that would not have been possible without such financial support. The Division has acquired ten new State Nature Preserves (see Plate 18) and purchased nine parcels of land as additions to existing Preserves. A total of 1108 acres were added to the Nature Preserve System in this acquisition. In addition, the Division acquired six areas totaling 477 acres along five Scenic Rivers. The purchase of all these lands cost \$1,360,531 which represents about 40 percent of the total tax checkoff expenditures as of the fall of 1989. Tax refund checkoff monies also supported the development of 45 visitor-use facilities, 12 special projects, 87 research grant projects and 10 information and education programs of the Division.



Figure 16.14. Plants are identified, measured, and recorded from square meter quadrats along a transect in Headlands Dunes State Nature Preserve in Lake County to secure accurate baseline information from which to develop management strategies. Conducting this study from left to right are Juan Batista, Jay DeLong, and Sandra Washington. Photo by Jennifer Windus, June 1988.

THE MONITORING AND RESEARCH PROGRAM

One of the most valuable projects made possible by the tax refund checkoff program is the Monitoring and Research Program which generates ecological data that can be used to manage effectively not only selected species but also biological communities within the State Nature Preserve and Scenic River Systems.

Acquisition and/or dedication only begin the protection process. From the time of acquisition, the Division becomes totally responsible for the care of the Preserve or Scenic River Area for present as well as future generations to use and enjoy. Because natural ecological systems are dynamic and ever changing, some biological communities or species, for which the area was acquired, are favored; sometimes, however, these changes can be detrimental to those communities and/or species. This is the reason that it is vitally important to monitor such ecological changes by collecting data about species dynamics, natural succession, visitor impact, external influences on the area, and the effects of habitat manipulation (Fig. 16.14). Information gained from this program is essential to develop the knowledge and skills required to take the necessary actions to protect the feature or features for which the area was acquired. By virtue of this program and other information, the Division will be able to make wise decisions for the sound management of Ohio's Scenic Rivers and State Nature Preserves, and to ensure the long-term survival of our rare and endangered species and valuable natural communities. Future generations will be the benefactors!

REFERENCES

- Braun, E. Lucy and Lynds Jones. 1926. [Natural areas in] Ohio. In *Naturalist's Guide to the Americas*, ed. Victor E. Shelford, 354-372. Committee on the Preservation of Natural Conditions. The Ecological Society of America.
- Herrick, J. Arthur. 1974. The natural areas project, a summary of data to date. *Ohio Biological Survey Informative Circular 1*. 60 pp.
- Moseley, Richard E., Jr. and Ralph E. Ramey. 1979. Preserving the heritage. In *Ohio's Natural Heritage*, ed. Michael B. Lafferty, 305-313. Ohio Academy of Science, Columbus, 324 pp.