

The Kentucky Native Plant Society



Newsletter: Volume 4, Number 1

February 1989

The Kentucky Native Plant Society was founded in 1986 as a botanical organization for all persons interested in the native flora and vegetation of the state. The goals of KNPS are to serve as a medium of information exchange, to promote native plant conservation, public education in botany, and botanical research in Kentucky.

WILDFLOWER WEEKEND AT NATURAL BRIDGE STATE RESORT PARK by Ron Jones

The 1989 Annual Spring Meeting of the KNPS will be held in association with the Wildflower Weekend at Natural Bridge State Park. This meeting will occur on Saturday, May 6, in the large meeting room in Hemlock Lodge at 6:45 pm. If you are going to eat at the Lodge be sure to get to the dining room early (it opens at 5:00pm) so that you will be finished by 6:45 pm. We will have a business meeting and discuss KNPS plans for future projects and field trips. In particular, we need to discuss the following: planning committees for the several activities suggested in our December, 1988 newsletter; do we want or need to become incorporated and officially a non-profit organization; ideas for improving the format and content of the KNPS Newsletter; strategies for developing rare plant protection in Kentucky; and ways to increase our memberships. We will conclude the meeting at 7:45 pm, in time for making the short walk over to the Activity Center for the evening program. For further information on the Wildflower Weekend see the Calendar of Events in this newsletter and the enclosed brochure.

I would like to encourage all KNPS members who possibly can to attend the Wildflower Weekend at Natural Bridge State Resort Park. KNPS is a co-sponsor of the event, and has been much involved in the planning of the activities. A special T-shirt is being designed for the weekend, and will be available for sale during the weekend events. A wide variety of field trips will be available to satisfy both the novice and the veteran, and evening lecture/slide shows will take place on both Friday and Saturday.

The Friday evening program will be presented by Dr. William Martin, Director of Natural Areas and Professor of Biological Sciences at Eastern Kentucky University. An authority on grasslands and forest communities, he is currently the President of the Association of Southeastern Biologists, and Chair of the Scientific Panel on Biosphere Reserves of the Interior Low Plateau. Dr. Martin is now editing a major two-volume work to be titled Biotic

Communities of the Southeastern United States. He will speak on the paradox of managing our natural areas.

Dr. Robert Mohlenbrock, Distinguished Professor of Biology at Southern Illinois University, will present the Saturday evening program. He is the author of over 200 articles and 25 books, and writes a regular column in Natural History magazine. His Where Have All the Wildflowers Gone? is a region-by-region account of endangered and threatened plants in the U.S. He has published 10 volumes of his monumental Illustrated Flora of Illinois, and recently completed a new edition of his Guide to the Vascular Flora of Illinois. Dr. Mohlenbrock will speak on rare plants of our eastern forests.

Wildflower Weekends at the Park have been held regularly for the past several years, but the event has been expanded this year to include many more field trips and activities. We are hoping for a large turnout and good weather! Please try to attend the Annual Spring Meeting on Saturday evening, and at least some of the activities planned for May 5-7, and remember to make your reservations early if you plan to stay at the Park.

MEMBERSHIP REMINDER

PLEASE SEND IN YOUR 1989 DUES OF \$3.00. YOU ARE PAID UP THROUGH THE YEAR INDICATED ON YOUR ADDRESS LABEL. IF YOU HAVE HAD A PROBLEM IN RECEIVING YOUR NEWSLETTER, OR IF THE INFORMATION ON YOUR ADDRESS LABEL IS INCORRECT, ESPECIALLY THE DATE OF YOUR CURRENT MEMBERSHIP, PLEASE CONTACT KNPS AT OUR RETURN ADDRESS.

We now have an up-to-date computerized listing of current KNPS members. Both an alphabetically and a numerically (by zip code) arranged sequence of members is available. If you would like to have this listing in order to know about other KNPS members in your vicinity for carpooling to field trips, etc., please indicate your preference (alphabetical or numerical by zip code) and send \$1.00 for each listing requested to the KNPS return address. If you would prefer that your name and address not be given out to other KNPS members or to other conservation groups requesting our mailing list, please let us know and we will honor your wishes.

UNIVERSITY OF KENTUCKY ARBORETUM CONTINUES COLLECTION

The University of Kentucky has committed about 100 acres of its campus in Lexington to an arboretum. Funds have been spent on a master plan, an initial collection effort, and development of a special nursery at U.K. About half of the area will be devoted to native woody plants. A collection effort is continuing, aiming to get all native species, with larger numbers of the more common tree species. All suitable methods of collection and propagation are being tried. Help from KNPS members or others would be appreciated. Contact Julian Campbell (606/271-4392) or Bob McNeil (606/257-8903) for further information on our needs.

CALENDAR OF FIELD TRIPS AND OTHER EVENTS

1st April (Saturday). SPECIAL FUND RAISING FIELD TRIP FOR THE NATURE CONSERVANCY TO JESSAMINE GORGE (JESSAMINE COUNTY). This trip has been organized by the Kentucky Natural History Society and participants must register by phoning Julian Campbell (606/271-4392). There will be a limit to the number of people. Members of The Nature Conservancy will be charged \$5; non-members, \$15 (including \$10 for introductory membership). The main goal of the trip will be to see the snow trillium (T. nivale), known from only two localities in Kentucky. Many other early spring flowers will be evident, especially the white trout lily. The hike will be moderately easy to moderately strenuous, depending on how far people want to go. Meet in Wilmore at 1:00 pm in the parking lot by the railroad tracks on the east side of town, along KY-1268.

15th April (Saturday). HAWK BRANCH OLD GROWTH WOODS (LEE COUNTY). This US Forest Service tract has some relatively old forest for the region. After a visit by Danny Barrett, Wilson Francis and other biologists this area was described as a "Significant Area" in the 1988 inventory of the Stanton Ranger District. The trip will be led by Danny Barrett (606/666-8828); it will be a 1-2 mile, 3-4 hour, moderately strenuous hike, with no trails. Meet at 10 a.m. in the Druthers Restaurant parking lot on the north side of Beattyville. The woods are a 20 minute drive from Beattyville, with much on unimproved gravel roads.

22nd April (Saturday). "THE MIXED MESOPHYTIC FOREST AND SPRING FLORA OF LILLEY CORNETT WOODS (LETCHER COUNTY)". These woods are the largest known remnant of original uncut forest in Kentucky. Leader: Dr. William H. Martin (Eastern Kentucky University, phone: 606/622-1476). The hike will last four hours and will be fairly strenuous; bring a lunch. Meet at 10 a.m. at the Visitor Center by the woods. Take Mountain Parkway to Campton; take KY-15 to about 6 miles beyond Hazard; turn right on KY-7 and go about 13 miles; turn right on KY-1103 for about 8 miles to the Woods.

5-7th May (Friday-Sunday). WILDFLOWER WEEKEND AT NATURAL BRIDGE STATE RESORT PARK. See enclosed brochure for details. On Saturday, 6th May, at 6:45 p.m., we will have THE ANNUAL SPRING BUSINESS MEETING OF KNPS in the Large Meeting Room at Hemlock Lodge in the park. See Ron Jones' article for more details.

20th May (Saturday). FLAT ROCK GLADE NATURAL AREA (SIMPSON COUNTY). A unique and different type of limestone glade for Kentucky was discovered here in 1988 by Marc Evans, who will lead the trip (phone: 502/564-2886). Numerous rare and unusual wildflowers will be seen, including Glade Cresses (Leavenworthia torulosa and L. uniflora), Glade Primrose (Oenothera triloba), Butler's Quillwort (Isoetes butleri) and Fame Flower (Talinum calcaricum). Meet at 11 a.m. (**CENTRAL TIME**), in the parking lot of the grocery store/gas station in Woodburn, which is about 10 miles s. of Bowling Green on US-31W, at the intersection with KY-240. The hike will be flat and easy, lasting about 3 hours.

LETTERS TO THE EDITOR

From John M. Anderson, 2200 First National Bank Center, Cincinnati, OH 45202. "You have inquired about projects. I have created a Kentucky non profit corporation known as Andana Arboretum, Inc. and am setting aside 50 acres, more or less, of my 450 acre farm in Own County for arboretum purposes. I would like to feature Kentucky native plants in the arboretum. We have constructed a 5 acre lake which can serve as a water supply. The 50 acres are surrounded by a high tensile electric fence designed to keep out deer and other damaging animals out of the area. We are in the initial design stage and I am wondering if KNPS would like to utilize this undertaking as a project for native plants. I would be happy to discuss the possibilities with KNPS."

From Hilda Payne, Mt. Martha, Pikeville, KY 41501. "A couple of my friends here in Pikeville have been keeping a "life list" of wild flowers and shrubs (like the birder lists) by writing down (or photographing) and noting in our wildflower books when, where, etc., at the end of each field trip. Also we take seeds and in the past 12 years I have rescued plants from various building sites, mines, new roads, our county airport, etc. I have planted them on my own "wild" property. At least as long as I live, my wild plants will be safe from the bulldozers! My friend, Dr. Mary Wiss has a large greenhouse and we start the seeds and give plants to people who are interested to cultivate them. Our most exciting project has been the discovery and nurturing of the albino cardinal flower. I have a hillside of lobelia, cardinal flower and albino cardinal flower (red, white and blue). Pike County has a prepared site for a shopping centre in the area of an abandoned airport. For the past three years, we have identified about 40 species blooming in this small area each September! Two of our most beautiful finds this past year were acres and acres of Blue-eyed Marys within the city limits, and the Orange Azalea growing with the Pinxter in such numbers we were unable to count them! We also found a red azalea - we need a wild azalea book! We also need a book on Kentucky ferns, and berry producing plants and shrubs...."

Education in our schools on rare plants is practically non-existent. It is excluded in ignorance by the knowledge of the presence of minerals in our state. Therefore they are being destroyed at a sickening rate. I am very interested in each item in your editorial, and feel it is very important to have some legislation with some teeth to it to protect the lovely and rare plant life. If we don't, and if education isn't implemented in grammar school and on up, we are going to lose, forever, one of the most important and beautifying characteristics of this state. I cried when I learned an ignorant woman had an Orange Azalea cut down in her lawn which I had admired for 12 years, an azalea at least 6 ft across and as large as a small tree. I told her I would gladly have given her \$200 for it and she replied "that old wild honeysuckle? Why, my mother dug that old wild thing out of the woods years ago! It wern't warth nothin'. I'd give it to you." That is typical of 99% of the people in the mountains..."

WETLANDS AND WILDLIFE

By Charles Elliott, Biology Dept., ECU, Richmond, KY 40475

As the temperatures start to climb and winter releases its grip on the countryside, unique wildlife habitats start to reappear. One of the habitats which melts first in the spring is wetlands. Wetlands, those areas covered with shallow (and sometimes temporary) water, are often referred to as worthless-- "too wet to plow and too messy to build on." Yet our wetlands (call them what you may--swamps, bogs, flooded bottomlands, or just "wet low spots") are among the richest wildlife habitats found in North America.

The abundance of wildlife in these areas depends heavily on the unique native wetland plants which grow so profusely in the water-soaked soils. Marsh and aquatic plants are the mainstay for one of our most important wildlife groups, the waterfowl. The seeds and plant parts of pondweeds (Potamogeton sp.) are highly prized by certain species of duck in the southeast, comprising 10 to 25% of the reported diets of coots, baldpates, canvasbacks, mallards, reheads, shovellers, and wood ducks. Rice cutgrass (Leersia oryzoides), wild millets (Echinochloa sp.), naiads (Najas sp.), and chufa (Cyperus sp.) seeds are frequently consumed by wood ducks, black ducks, green-winged teal, pintails, ruddy ducks, and ring-necked ducks. Among the furbearing animals of the marsh, the most ubiquitous users of wetlands plants is the muskrat. Consuming the rootstocks and leaves of horsetails (Equisetum sp.), cattails (Typha sp.), pondweeds, arrowheads (Sagittaria sp.), rice cutgrass, wild millets, and bulrushes (Scirpus sp.), the muskrat has prospered well in wetlands and has become a symbol of these marshland habitats. Ignoring aquatic plants as sources of food, their use as nesting material and nesting cover by numerous species of waterfowl and marshland songbirds further illustrate the "all-around" value of wetland plants to wildlife.

Approximately one-third of the wildlife species we refer to as endangered find their homes in wetlands. Wetland plants provide a valuable service to people as well as critical habitat for animals. The root systems of plants that grow in our swamps and bogs act as a natural filter for certain types of water pollutants--a very handy trait considering wetlands are a major route through which our underground water systems (wells) are recharged (refilled).

So as the weather warms, days lengthen, and you get out into the countryside; recognize our wetland and the unique assemblage of plants that grow there for what they are--immensely valuable wildlife habitat and a source of clean water for ourselves.

PRICE'S GROUNDNUT, A RARE KENTUCKY LEGUME by Hal Bryan

Not all rare plants grow in ancient forests, undisturbed cedar glades or pristine prairies. Many species, including several orchids, are inhabitants of early stages of a woodland. The light let in by forest openings or that filtered through the sparse overstory of a young forest is often vital to some flowering plants.

One of Kentucky's rarest plants is such a species. Price's groundnut, Apios priceana, is a perennial herbaceous vine whose compound leaves bear some resemblance to wisteria. A member of the legume or bean family, Price's groundnut produces a large underground tuber that stores the carbohydrates which enable the plant to survive the winter. This twining plant often clings to shrubs, scrambles over small trees, and in a few optimal sites blankets the ground with its large leaves.

Price's groundnut is very similar to a much more common member of the genus Apios, the American groundnut, A. americana. Price's groundnut has larger leaflets and greenish-white flowers, rather than the maroon color of the widespread American groundnut. Both have edible tubers, but in Price's groundnut, the tuber is solitary and larger than the string of root enlargements of the more common species. American groundnut was an important food item of North American Indians, and it is possible that Price's groundnut was also eaten.

Price's groundnut was discovered by the eminent Kentucky botanist Sadie Price in the summer of 1896, flowering in a rocky woodland in Warren County. It was described as a distinct species two years later by the Harvard taxonomist B.L. Robinson, who stated that it was a "pleasure to commemorate in the specific name of this noteworthy plant the work of such a careful observer of the Kentucky flora."

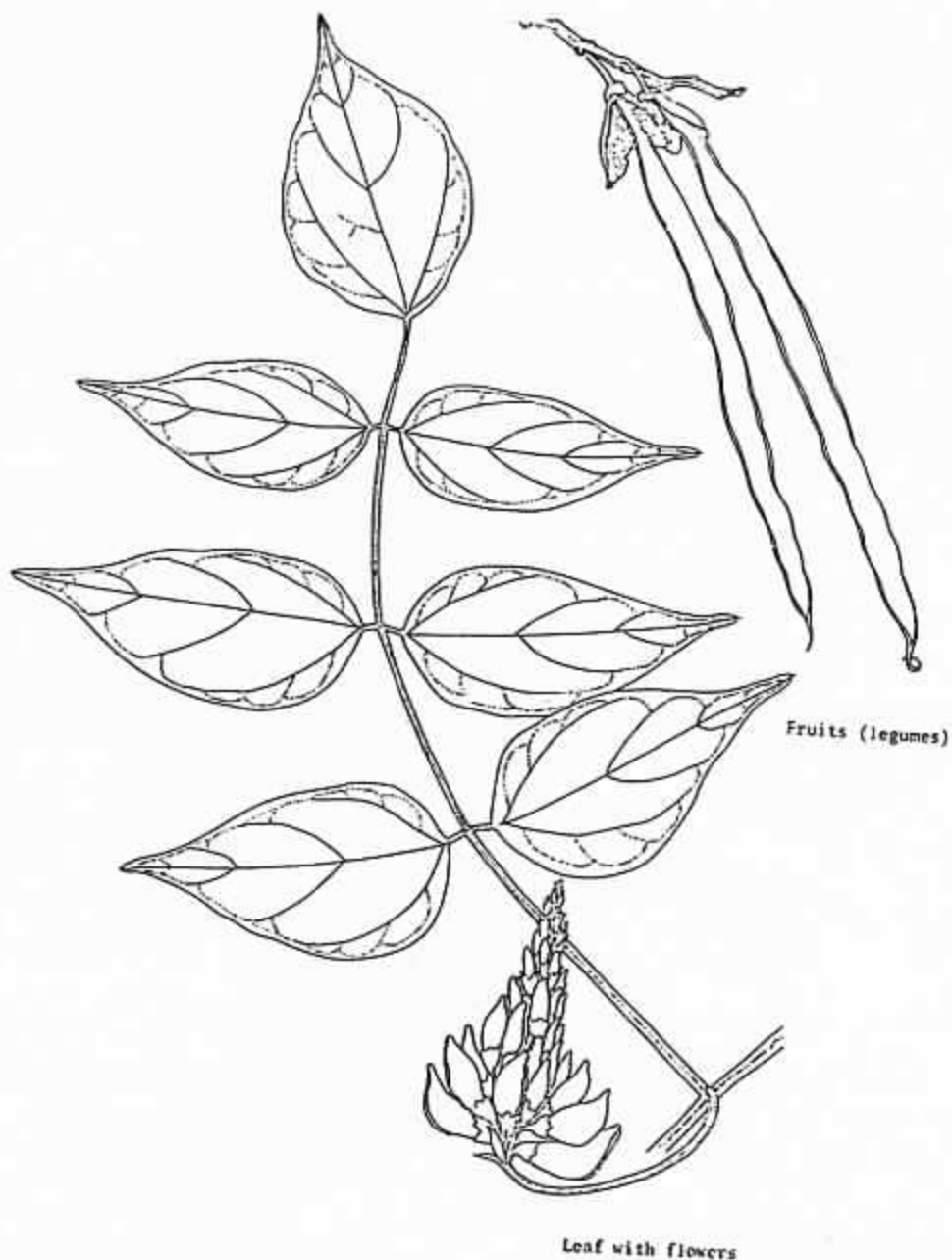
Today this rare legume is known from three Kentucky counties--Lyon, Livingston and Trigg--where it generally grows on the slope of a woodland above a stream or lake. Sadie Price's original sites around Bowling Green have not been relocated and neither have previous records from Calloway and Edmonson Counties. The species is rare throughout its range. It is also known from five sites in Mississippi and three each in Tennessee and Alabama. An Illinois population on the edge of a floodplain forest has not been seen since the 1970s and may have been lost to flooding caused by a beaver dam.

The rarity of Price's groundnut is a perplexing botanical question. Certainly its habitat is not uncommon in most of the Southeast. Sadie Price reported that the species often fails to set fruit. She observed that flowers were visited by butterflies and by "honey bees and humble bees, the latter appearing to find the nectaries very difficult of access." American groundnut is often spread by water-borne tubers and it has also been speculated that

this common species' range was increased by native Americans transporting a sources of food. The populations of Price's groundnut are small, widely separated (disjunct) from each other, and therefore, in danger of local extinction.

Price's groundnut is considered endangered in the Commonwealth by the Kentucky Academy of Science and the Kentucky Nature Preserves Commission. More importantly, it will be Kentucky's fifth federally threatened species by the U.S. Fish and Wildlife Service in the spring or summer of 1989. At that time, money will become available to search for additional sites and to study ways for ensuring that it continues as a unique member of our flora.

Apios priceana, drawing by Sadie Price, 1898.



Fruits (legumes)

Leaf with flowers

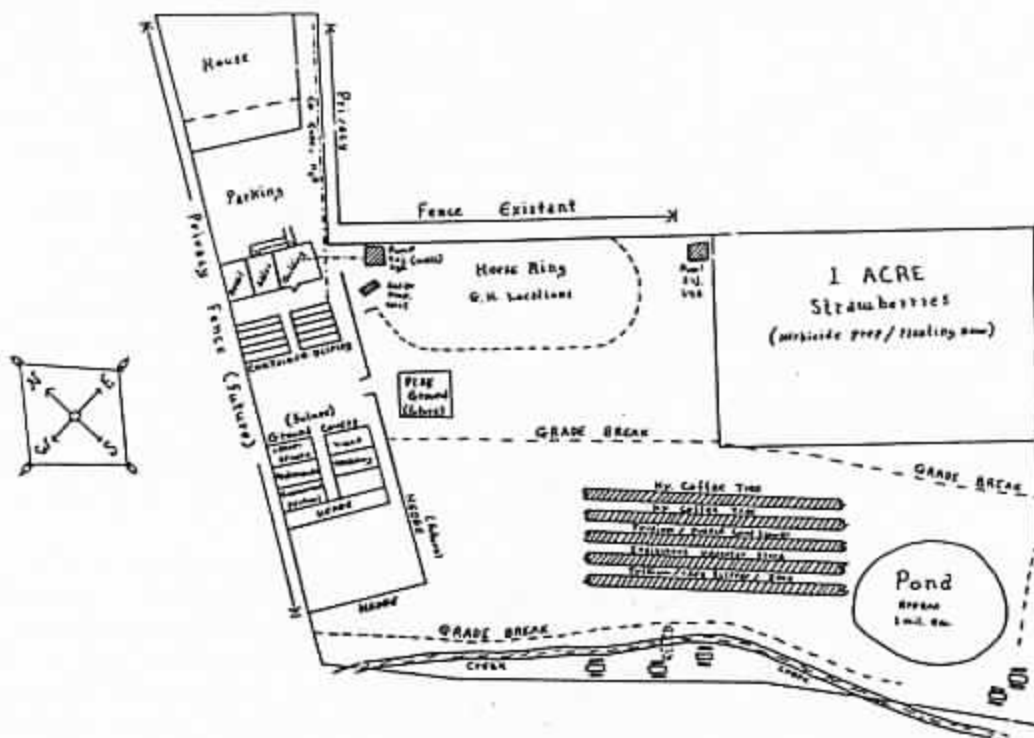
NURTURED GARDENS SOON TO OPEN

By Larry Linville, Nurtured Gardens, P.O. Box 1, Morehead, KY 40351
Phone: (606)784-3950

In late spring, Kentucky will have a new nursery dedicated to the preservation of Kentucky's wildlife. Initial sales and operation will be that of a conventional nursery, with the addition of a craft shop. This will provide the capital necessary to achieve some of the goals of Nurtured Gardens and crafts. We are hoping to have in stock in the future propagation stock, with seeds and bulb supplies for many of Kentucky's native plant material. It is hoped that some endangered plants can be included for repopulation in the state.

There will be areas devoted to native wildflowers, herbaceous and woody plant propagation. Also an area along Sunbury Rock Creek will be devoted to a botanical garden with facilities for relaxation. This should generate interest and attract some of Kentucky's wildlife artists. Within the retail sales building, an area will be set aside as a meeting room for community interests, including wildlife clubs, extension seminars, forest service meetings, gardening and woodworking classes.

It is in the interest of NGN to set up an on-site seed bank. This would depend on interest and participation. Interested individuals please contact us and extend your thoughts and ideas on this matter. The following graphic layout will help us to visualize our prospective goals.



Dedicated to the preservation of Kentucky wildlife

CURRENT FINANCIAL CONDITION OF KNPS by Kathleen Jones

The following financial statements give detailed accounts of KNPS income and expenses for 1986 through 1988. Our balance has grown from \$230.22 at the end of 1986 to \$2040.74 at the end of 1988. This increase is in large part because of the donations that KNPS received in 1987, and to the sale of books and t-shirts in 1988. In 1988 both dues and donations dropped off considerably, and the cost of printing the newsletter greatly increased. In 1989 the newsletter printing will cost even more, about \$800, and we will spend about \$400 on the printing of a new t-shirt for the Wildflower Weekend. There are also plans to publish a new book, which should cost about \$400, on the endangered species of Kentucky. Because of these additional costs, a small increase in dues will probably be needed by next year; it would also be of great help to have an increase in membership from the current 350 to about 500. With the income from dues and the profits from book and t-shirt sales, KNPS should remain in good financial condition.

KENTUCKY NATIVE PLANT SOCIETY
FINANCIAL STATEMENT FOR THE YEAR 1986

INCOME

Dues.....	648.00
Donations.....	28.00
T-Shirt sales.....	24.00
Interest.....	14.65
	<u>714.65</u>

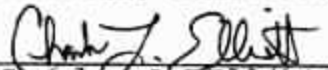
EXPENSES

Printing of KNPS Newsletter (4 issues).....	157.90
Postage.....	218.78
Meeting facility rental (Natural Bridge).....	25.00
Speaker honorarium.....	50.00
Check deposit stamp.....	6.00
Refreshments for meetings.....	16.00
Copying.....	6.04
Postage supplies.....	4.71
	<u>484.43</u>

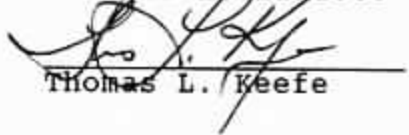
SUMMARY

Balance on hand, 1 January, 1986.....	0.00
Income 1/1/86 to 12/31/86.....	714.65
Total available.....	<u>714.65</u>
Expenses 1/1/86 to 12/31/86.....	484.43
Balance, 1 January, 1987.....	230.22

Auditing Committee:



 Charles L. Elliott



 Thomas L. Keefe

Respectfully submitted,



Kathleen L. Jones
Treasurer, KNPS
1 February, 1989

KENTUCKY NATIVE PLANT SOCIETY
FINANCIAL STATEMENT FOR THE YEAR 1987

INCOME

Dues.....	1004.50
Donations.....	809.50
T-Shirt Sales.....	30.00
Interest.....	77.65
Book sales ("Vegetation and Flora of Kentucky").....	74.00
Backissues of Newsletter.....	7.00
	2002.65

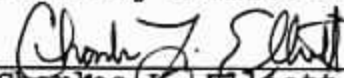
EXPENSES

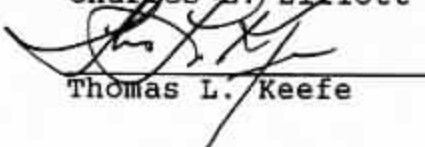
Printing of KNPS Newsletter (4 issues).....	244.16
Postage	171.27
Bulk Postage Permit.....	100.00
Postage stamp.....	13.00
Printing of "Vegetation and Flora of Kentucky".....	256.20
Bulk Mailing Fee.....	50.00
Photographs for display.....	13.36
Coffee pot for meetings.....	30.00
Bank charges for returned checks.....	2.00
	879.99

SUMMARY

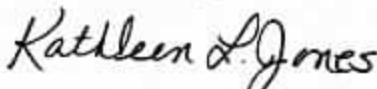
Balance on hand, 1 January 1987.....	230.22
Income 1/1/87 to 12/31/87.....	2002.65
Total available.....	2232.87
Expenses 1/1/87 to 12/31/87.....	879.99
Balance, 1 January, 1988.....	1352.88

Auditing Committee:


Charles L. Elliott


Thomas L. Keefe

Respectfully submitted,



Kathleen L. Jones
Treasurer, KNPS
1 February, 1989

KENTUCKY NATIVE PLANT SOCIETY
FINANCIAL STATEMENT FOR THE YEAR 1988

INCOME

Dues.....	853.50
Donations.....	134.00
Book sales ("Vegetation and Flora of Kentucky").....	409.00
T-Shirt Sales.....	93.25
Interest.....	106.78
	1596.53


EXPENSES

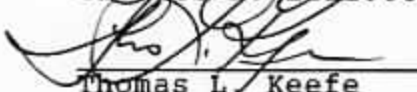
Printing of KNPS Newsletter (4 issues).....	569.07
Postage.....	223.99
Special mailing for Bill 589.....	38.75
Bulk mailing fee.....	60.00
Labels for newsletter.....	11.86
Bank charges for returned check.....	5.00
	908.67

SUMMARY

Balance on hand, 1 January, 1988.....	1352.88
Income 1/1/88 to 12/31/88.....	1596.53
Total available.....	2949.41
Expenses 1/1/88 to 12/31/88.....	908.67
Balance, 1 January, 1989.....	2040.74

Auditing Committee:

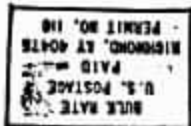

Charles L. Elliott


Thomas L. Keefe

Respectfully submitted,



Kathleen L. Jones
Treasurer, KNPS
1 February, 1989



Richmond, KY 40475
Eastern Kentucky University
Department of Biological Sciences
The Kentucky Native Plant Society

KNPS Officers:

- President--Ron Jones, Department of Biological Sciences, ECU, Richmond, KY 40475. 606-622-6257.
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- Secretary--Charles Chandler, 924 Maywick Dr., Lexington, KY 40504.
- Treasurer--Kathleen Jones, 144 Golf View Dr., Richmond, KY 40475.
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- Director--Jerry Baskin, School of Biological Sciences, University of Kentucky, Lexington, KY 40506. 606-257-8770.
- Director--Richard Cassell, 4003 Poplar Level Rd, Louisville, KY 40213.
- Director--Danny Barrett, Corps of Engineers, 1143 College Ave., Jackson, Ky 41339. 606-666-8828.
- Editor of KNPS Newsletter--Julian Campbell, 3468 Greentree Rd., Lexington, KY 40502.
- Chairperson of Special Projects Committee--Wilson Francis, Park Naturalist, Natural Bridge State Resort Park, Slade, KY 40376. 606-663-2214.

