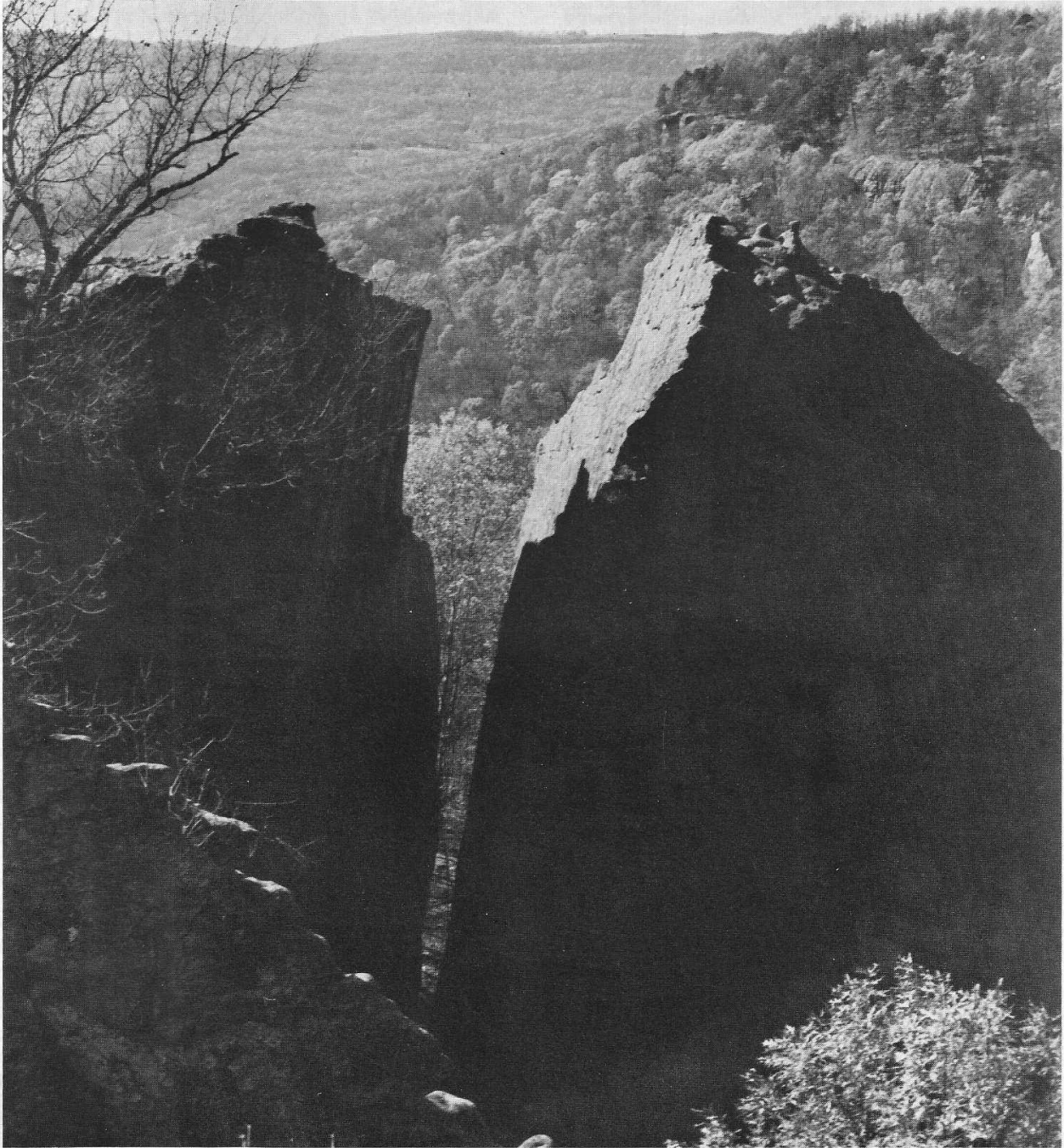


# Ozark Society Bulletin

Autumn & Winter 1979



Busby Bluff, 2 miles SW of Mount Sherman, Newton Co., Arkansas — Neil Compton

Volume XIII, Numbers 3 & 4

## OZARK SOCIETY BULLETIN

Volume XIII, Numbers 3 & 4, 1979

Published by The Ozark Society

Joe Marsh Clark and Maxine B. Clark, Editors  
Ph. 501-442-2404

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We were unable to produce four issues of the BULLETIN this year so are calling this issue Volume XIII Numbers 3 and 4 to prevent confusion caused by a missing number.

## EVANGELINE ARCHER

1898-1979

EVANGELINE ARCHER, first secretary, and one of the founders of The Ozark Society, died Friday, December 14, 1979. She had risen that morning to prepare a cup of coffee, went back to bed and typically took up a book. Apparently she fell into a deep sleep from which she never recovered.

Evangeline did much reading and frequently recommended books she'd read on natural history, the environment, etc. She frequently sent succinct paragraphs from many sources to the Bulletin.

Evangeline was born December 20, 1898, at Springdale, the daughter of Cassius L. and Magdeline Egele Pratt. Her first husband was Julian S. Waterman, founder and first dean of the University of Arkansas Law School and vice president of the U. of A. after his death, she married Laird Archer, foreign officer of the Near East Foundation.

Survivors are her husband of Fayetteville, one son, Julian Archer of Des Moines, Iowa, a brother, G. L. Pratt of Tulsa, and three grandchildren.

During the early years of the fight to prevent the damming of the Buffalo and coincident to the rapid growth of The Ozark Society formed initially for that specific purpose, Evangeline furnished much of the incentive and energy needed to carry on the work of the Society. Her close friendship with Senator Fulbright enhanced the ability of the Society to communicate with Washington.

She, along with Dr. Compton, president of the Society, felt the need of a regularly published bulletin to improve the communication between the members and to keep them informed on environmental issues. She attempted to interest several retired journalists in producing such a publication. This failed, but she and Dr. Compton were instrumental in getting the Bulletin started.

A memorial service was held January 12 at the Pratt-Markham home in Fayetteville. Memorials may be made to The Ozark Society, P.O. Box 2914, Little Rock, Arkansas 72203.

# The Role of the National Forests In the Economy of the Ozark Region

Remarks of Dr. M. Rupert Cutler, Assistant Secretary for Natural Resources  
and Environment, before The Ozark Society Meeting,  
Huntsville, Arkansas, November 3, 1979.

This is the second time in little over a month that I've been in the Ozarks. Last month I floated the Current River in Missouri and visited the Sylamore Ranger District. I toured the remarkable Blanchard Springs Caverns for the first time and visited the Ozark Folk Center.

To say the least, I'm impressed with what I've seen. If someone would teach me how to holler "SOOOIEEE PIG" like an Arkansan, I believe I could make a good Razorback fan and give up the asphalt jungle of D.C. for the solitude and beauty of the forests of Arkansas.

Arkansas is blessed with a bounty of natural resources—50 percent of the State is covered with forest. In the Ozarks, rough topography, low-population densities, clear, free-flowing streams, and a favorable climate make this region an island of relatively unspoiled naturalness.

Naturalness, however, is only a part of the Arkansas environment. For decades that naturalness has been modified by other development. The area has been an important source of oil, natural gas, coal, and other minerals. Its growing light industry has had the advantages of well-developed hydroelectric power, admittedly at the expense of some white-water rivers. Agriculture, once the dominant industry, is still strong. King cotton has given way to livestock pastures and fish farms. Soybeans now grow where bottomland hardwood forests once stood.

Paved highways through the Ozarks have made tourism a mainstay of the State's economy. Increased access also has brought the development of retirement villages. The population declines of the mid-century have been reversed. Arkansas today is groping toward accommodation to the influx of people.

The management and goals of the Ozark-St. Francis and Ouachita National Forests in Arkansas have been and will continue making an important contribution to the State's development. These publicly owned forests constitute 16 percent of all forest lands in the State. The major issue which I will discuss with you this afternoon is how I expect these National Forests to be managed to serve the needs of the people of the Ozarks and at the same time contribute to certain national goals.

A basic principle for management of the 188-million-acre National Forest System underlies all my remarks. It is that the National Forests should provide public benefits that cannot be supplied by private land, usually because economic incentives for the private landowners are absent. This principle requires National Forest management to be responsive to long-term local needs.

A current trend in Ozark agriculture illustrates the

way needs should influence National Forest management. Traditionally, the National Forests, along with other forest lands, have provided woodland grazing. Over the past several years, however, there has been a major increase in livestock numbers and a corresponding increase in improved pasture lands. This expanded use of improved pastures may well affect the supplemental use of grazing on the National Forests of Arkansas.

Grazing areas of these forests also provide wildlife habitat. And the demands for wildlife habitat in the Ozarks are spiralling upward. By 1985, annual participation in activities such as sightseeing, bird-watching, and wildlife photography are expected to exceed 2 million visitor-days in the National Forests of Arkansas. Visitor-days for hunting and fishing are expected to be over 1 million each. These projections are more than double the visitor-days recorded 10 years ago.

Expanded recreation uses in the Ozarks will require further development of recreation sites—both within and outside the National Forests. State and local governments and the private sector appear to be interested primarily in offering highly developed recreation sites. Therefore, the role of the National Forests, in responding to recreation needs, will be to provide the natural, more primitive types of sites.

Wilderness, of course, provides the most primitive recreation site possible. Of equal importance, however, is the opportunity provided by large areas of wilderness for ecological processes to work freely, for a gene pool of native species of plants and animals to survive, and for endangered species to be protected. These functions of wilderness areas make them important for scientific research and educational activities. Their undisturbed characteristics can be used as a baseline against which scientists can compare ecological changes found on disturbed and managed sites.

Publicly owned lands logically are the primary source of wilderness areas, though some privately held lands, such as land owned by the Nature Conservancy, also protect wilderness values. Natural boundaries for wilderness areas often extend across State lines. There is little economic incentive for private owners to keep large tracts undeveloped. Therefore, State and Federal governments, by necessity, have the lead in establishing and maintaining wilderness areas.

The mention of wilderness often leads to discussions about job opportunities. How will wilderness allocations affect employment in a specific area? Most everyone agrees that wilderness-designation provides a most esthetically and environmentally satisfying land allocation result, but that result will



be unacceptable if it adds to unemployment and reduces living standards for people.

Jobs in Arkansas are strongly tied to tourism, agriculture, and light industry. The manufacture of wood products is a primary industry of the State. And that leads us to timber—the need for timber and the jobs associated with timber production.

The increasing demand for timber production in the Ozarks reflects the growing demand nationwide. In the past, farm ownerships have been major suppliers of forest products—particularly hardwoods. However, forest acreage on farms has been declining because of diversion to pasture, soybeans, and other uses. By 1990, it is estimated that only 8 percent of the Ozarks timber supply will come from farmlands as compared to 21 percent 10 years ago.

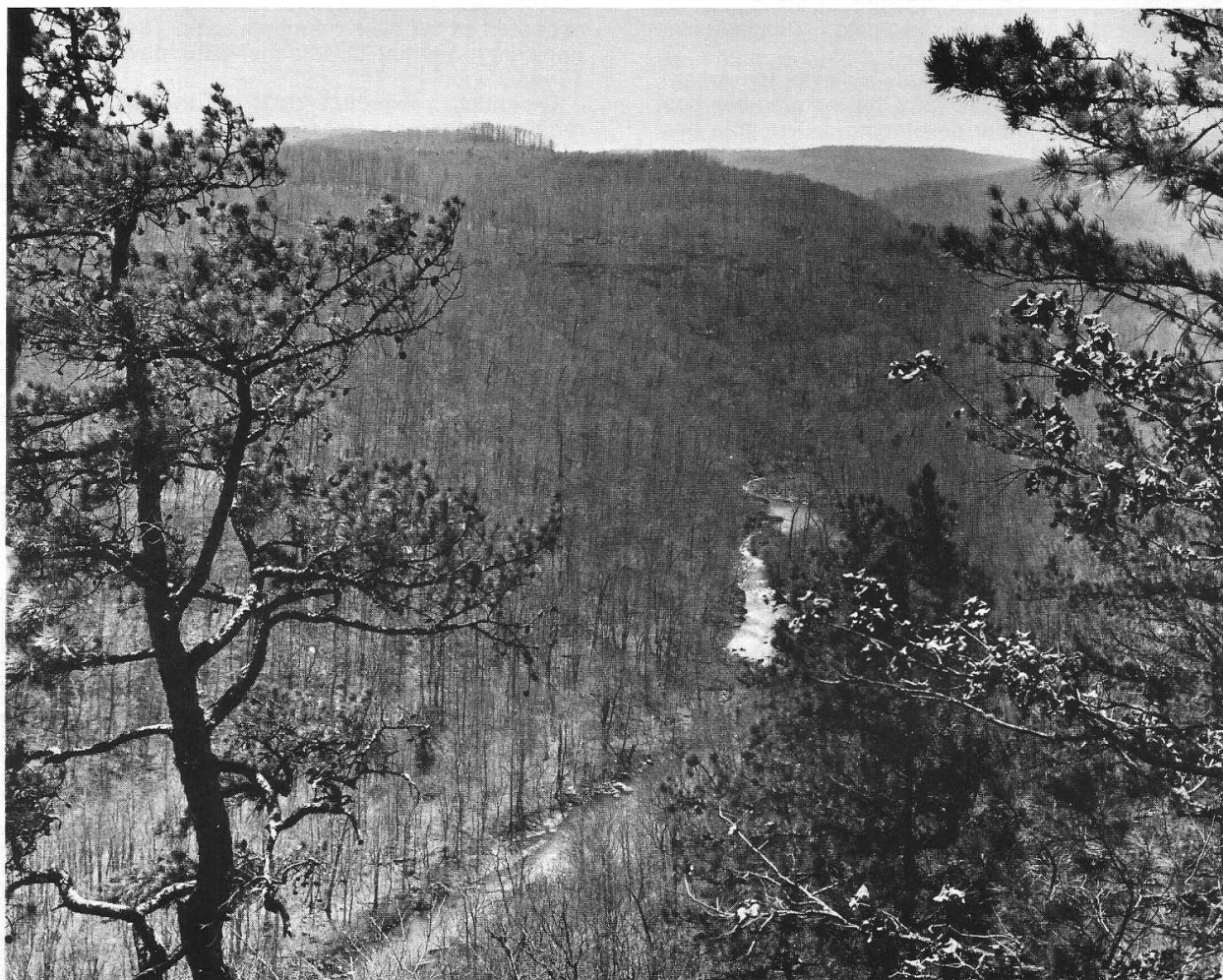
Private forest industries are expected to increase their contribution to the timber supply. However, they probably will concentrate on softwood production.

About one-half of the forested lands, mostly in hardwoods, are expected to remain in small ownerships in 1990. They will continue to be subjected to a variety of uses that limit their value for hardwood timber.

These projections are important because the demand for hardwood sawtimber from the Ozarks in 1990 is expected to be 5 million cubic feet more than it was 10 years ago.

The increased demand for commercial hardwoods, the reduction of farm forest lands, and the concentration of industry forests on softwoods puts responsibility squarely on the National Forests to help fill the gap. This responsibility requires that when sites are equally suitable for hardwoods or softwoods, **the production of hardwoods should be favored.** However, even with such a stringent management directive, our estimates indicate that the National Forests can provide only 50 percent of the hardwood demand in the Ozarks by 1990. The land capability exists, but there simply is not enough time for the necessary growth to occur.

If future demands for wood products are to be met, it is obvious that the Forest Service and the citizens of the Ozarks must work **together** to change the declining amount of timber coming from non-Federal forest lands. Together we must find means to provide technical assistance for forest management, financial incentives, and marketing mechanisms that will induce the small woodlot owner to



**The Upper Buffalo** Ozark National Forest — Neil Compton



utilize his hardwood timber for continuing income. Possibly, people in the Ozarks may want to explore the need for State legislation that will promote a continuing flow of timber from private lands.

By working with you, the Forest Service can help you meet Ozark area needs for job opportunities in wood product industries, while seeing to it that the environment is protected. There are also other ways whereby the Forest Service assists with increasing employment for local people. There are the work experience and job training programs of the Job Corps, the Young Adult Conservation Corps (YACC), and the Youth Conservation Corps (YCC).

The Job Corps has two centers in Arkansas—one at Ozark and one at Royal, near Hot Springs. They offer training in automotive tasks, building maintenance, carpentry, masonry, heavy equipment, painting, plastering, welding, and cooking. Four hundred and seventy persons completed training at the two centers in 1979. Of these, 85 percent were placed on jobs, in school, or in the Armed Forces.

The YACC provides a year's worth of conservation work on the National Forest and other public lands for young men and women who are out of school and out of work. In 1979, there were 75 YACC enrollees in Arkansas.

YCC provides summer employment for 15- to 18-year old youths from all segments of society. It gives young people a chance to learn about the natural environment while doing needed conservation work on public lands. The Forest Service employs some of the enrollees. By Federal-State cost-sharing, States also run YCC programs. Last year, the Forest Service and the State of Arkansas provided YCC employment for 363 persons.

Both YACC and YCC provide labor-intensive conservation work. Participants build nature trails, rehabilitate and build recreation facilities, plant trees, clean up natural disaster damage, and carry out many other activities that provide environmental benefits for people and wildlife.

We are sincerely committed to developing programs which meet the needs of local areas as we carry out national responsibilities required by Congress. Our land management plans for any forest unit must be derived in response to both local and national needs. These plans will be implemented in accordance with the goals of the Forest and Rangeland Renewable Resources Planning Act (RPA). These goals are now being updated for 1980 and will establish ranges of objectives for all Forest Service resources, including wilderness.

One of the five major objectives of the RPA is to give the American public an active role in the National Forest planning process. Your attitudes, desires, and actions can affect resource use. You in The Ozark Society represent points of view essential to the management of eastern National Forests.

Management of the eastern National Forests is strongly influenced by the origins of these forests. The lands on which eastern National Forests were established have at some time been markedly affected by human activity. They were heavily logged to provide timber for wagons, bridges, barns, homes, and industrial buildings. They were crossed and criss-crossed with roads. Wildfire burned over much

of this land. Erosion ravaged bare soil with gullies. Fragmented landownership patterns and nearness to metropolitan centers also have affected the management of eastern National Forests.

Activities in these forests and the adjacent private lands constantly interact in ways that affect water quality and quantity, wildlife habitat, type and quality of recreational opportunity and timber production.

A variety of authorities—Federal, regional, multi-state, State, multicounty, and local—get involved in planning and managing the interdependent land and water resources.

Competition among users of public and private natural resources is intense. It often produces conflicts that preclude a balance of uses that satisfy everyone.

Even wilderness for the eastern National Forests is sufficiently unique that Congress had to pass special legislation to make eastern wilderness areas possible.

Therefore, it is essential in developing recommendations for wilderness that we listen to the points of view of people living in and near the areas to be affected.

You are well acquainted with the U.S. Department of Agriculture's recent Roadless Area Review and Evaluation (RARE II) effort and the public participation associated with it.

We both know that despite considerable public participation in this process, the resulting decisions did not satisfy everyone. The Department and the President had to use criteria of area selection in addition to the one of local opinion.

For example: Within a reasonably sized national package of recommended areas, we have to avoid adverse effects on people and communities. We wanted to assure diversity of landform, ecosystem, and wildlife and provide for accessibility and wide distribution within the total set of areas. We considered all these criteria in our decisions for the nationwide system of wilderness.

I am glad to say that, as a result of RARE II, the recommended increases for eastern wilderness total 567,700 acres. This would bring the total to more than 1.6 million acres. For the Ouachita and Ozark National Forests, the recommended increase in wilderness is 24,700 acres. In addition, 38,300 acres were allocated for further study.

I have read your report on the RARE II effort. Even though you did not agree to the process, you did consent to use it. You demonstrated by this your maturity as an organization and your willingness to work with a system that I believe was reasonably fair.

Although our final recommendations did not parallel your proposal, three of the four areas you recommended for the Ozark National Forest were recommended either for wilderness or further study. It may not be what you asked for; but from where I stand, your batting average looks pretty good.

There also are other issues about the National Forests and natural resources on which you have made your concerns known.

One is stream preservation. Arkansas still has many beautiful, free-flowing streams and a good supply of water.

We know of your concern regarding the traditional



**Skinnydipper** hole on Beech Creek — Neil Compton

use of dams, levees, dredging, and channel modification for stream management. I am glad to say that awareness by groups like yours of the generally adverse ecological consequences of such practices has led to a shift toward nonstructural solutions for flood prevention and drainage. Nonstructural water management offers exceptional opportunities for complementary greenway development and recreation use . . . and we will use these nonstructural approaches in Arkansas.

The Soil Conservation Service has embraced a newly broadened natural resource mission and will be giving consideration to nonstructural alternatives in its small watershed projects wherever possible. The Forest Service also gives special attention to the protection of natural streams and important riparian, or streamside, habitat.

Closely associated with stream preservation is the issue of preservation of wetlands. They are by far our most productive wildlife lands, but their value goes beyond that. Wooded swamps and seasonally flooded hardwood forests are important commercially. Wetlands also reduce flood peaks and maintain

streamflow in spring and fall. They improve water quality by serving as nutrient traps. They remove suspended sediment from water.

Despite these important values, the Nation has been losing an average of 500,000 acres of wetlands a year through draining, filling, or conversion to other uses. The Soil Conservation Service is pushing forward with plans to reverse this trend.

As you know, we have a national policy providing for a Wild and Scenic Rivers System. President Carter sent legislation to Congress early last month which would add three new rivers to this system, two in Colorado and one in Idaho.

Perhaps the new State Natural and Scenic Rivers Commission established by Governor Clinton can identify some worthy candidates in Arkansas for similar national designation. I understand the Piney, Illinois Bayou, and Kings River, have been considered in the past for designation—and may be again. I assure you that Jim Crouch, Supervisor of the Ozark-St. Francis National Forests, will work closely with the Commission to the extent their work

(continued on page 14)

## Fellow Travelers - Endangered Species and Man

Harold Alexander  
Arkansas Out-of-Doors

*"Without some realization that 'this curious world' is at least beautiful as well as useful, conservation is doomed. We must live for something besides making a living. If we do not permit the earth to produce beauty and joy, it will in the end not produce food either."*

Joseph Wood Krutch

There has been an increasing concern for the quality of the human habitat, and a realization that man is a part of a vast and intricate biological community essential to the existence of all Life Systems. In recognition of this awareness, terms such as ecosystem and environmental quality have become household words; and legislation to prevent contamination of air and water, limit the exploitative uses of natural resources and protect such things as wilderness and endangered species has been enacted. Among these and other Environmental Concerns, it has been easy for most people to recognize the need to protect air and water from contamination. It is, however, much more difficult to make a case for the protection of obscure forms of life, particularly when the protection of habitats essential to the survival of an endangered species conflicts with agency or other developments which may eliminate those habitats.

A prime example of a confrontation between the legal right of a species to continued existence and a governmental project which would destroy habitats essential to the survival of that species is exemplified by the recently publicized Snail Darter - Tellico Dam controversy. Although there were many other issues in this confrontation, particularly those related to questionable costs in public monies and in other resources which exceeded the benefits claimed for the project, and the legal restraints imposed by the Endangered Species Act and Environmental Policy Act, the idea of a very small fish obstructing the completion of a large and costly dam was beyond the comprehension of many who were unfamiliar with the circumstances, and wondered what the "fuss" was all about.

In a recent issue of *The Conservationist*, an official publication of the State of New York, the Editor ably presented the need for the protection of endangered forms of life, and he prefaced his remarks on the significance of this legislation with the observation that it was "... one of the most unequivocal and ... enlightened pieces of legislation ever passed." In presenting his analysis, he listed two principal concerns identifying the values interrelated life forms have for mankind. The first of these he recognized as the "pragmatic" or practical con-

cern; and under this category he specified ecological, scientific and economic values and those which provide "enrichment" of the human condition. To demonstrate these values we can, for example, observe that endangered falcons and other birds have clearly demonstrated the toxic effects of D.D.T. and other pesticides on living organisms including man. Other animal species have provided us with vaccines to prevent disease; and various genera of wild plants and animals have, through selective breeding, given us our domestic animals and many kinds of agricultural crops essential to our existence. In accomplishing these objectives, scientists have, for example, evaluated some 9,000 species of wild sorghums to develop domestic strains which furnish vast quantities of food for man and his animals; and it has been observed that 47 kinds of drugs used in medicine were derived and developed from wild and presumably worthless plants. Too, aquatic forms of life from the earth's surface waters contribute greatly to man's economic needs and the satisfaction of his desires; and under the category of "human enrichment", animals have contributed to art, religion, sport and environmental diversity "essential to human life and culture."

But even more important to the human condition is perpetuation of a concern for ethics and moral responsibility. These concerns encompass a "reverence for life", the recognition of "animal rights" and "human self-respect." In recognition of these concerns, it has been pointed out that man has not done too well "by himself" and that through deviation from these principles he has acquired the guilt of Auschwitz, of the Gulag Archipelago and of Vietnam, and other departures from those moral responsibilities which he has assumed as an ethical and moral being.

At the time the Endangered Species Act was being considered in the United States Senate, Senator James Buckley remarked: "... allowing the extinction of any species is to acquiesce in some greater amount of permanent ignorance" ... "a process tantamount to book burning (of) books undeciphered and **yet to be read.**"

The very spirit of the environmental movement is the concern for the "brotherhood" of all life; and for the complex inter-relationships of life forms which sustain the character and quality of life on earth. Man is an integral part of those ecological systems which he but vaguely comprehends; and the perpetration of the "known" and vastly more complex "unknowns" in this system must determine the principles which guide our concern for the welfare and survival of the human species on this planet earth. ♡



# COUGER

by Joe Neal

Grapevine, Fayetteville, Arkansas, Dec. 19, 1979

Barry Weaver had an extraordinary experience in May, 1970. He'd stopped to rest from his work on a cabin 20 miles from Fayetteville. "I had just laid down the saw. The quiet was pleasant...I was looking up a gametrail that ran along the ridge. Suddenly I noticed a cat in the heavy shade of oak, hickory, and smaller trees like dogwood and redbud. It was standing absolutely still, about thirty feet from me."

Barry estimated the cat's height—20 inches at the shoulder. "He had been heading down toward me and was facing me, but not fully head on. His body was long and heavy, with the tip of a long tail showing to the right in a patch of sunshine. I didn't move and he didn't move...."

The unexpected event made him nervous. He turned to pick up a chunk of wood, but when he looked back the big cat "was gone without a noticeable sound." Was this a cougar, or puma, or panther, or mountain lion—one animal called by many names? Or was it the more common bobcat, with the characteristic short "bobbed" tail? "No," Barry said, "there was no mistaking the long tail." (Barry Weaver, former chairman, Highlands Chapter)

So Barry is a member of an exclusive club. Reading through some stories of Arkansas during the past 200 years, you gather that the cougar—or panther as the animal was most often called—was much better known in the past, was in fact the very heart and therefore the symbol of the wilderness. No account of those early days is complete without frequent mentions of panthers "screaming in the night."

Arkansas novelist Donald Harington has remembered the early days in his humorous, fanciful history of Newton County, *THE ARCHITECTURE OF THE ARKANSAS OZARKS*. According to Mr. Harington, our pioneering ancestors suffered from the frakes, a debilitating disease caused by overwork. One of the more imaginative home remedies used in the treatment of frakes was a concoction distilled from panther urine, said to be as potent as the night screams themselves.

In a more factual vein, UA zoologist Dr. John Sealander notes that the cougar still roams the wilder places of Arkansas. In *ARKANSAS MAMMALS*, he reports that in the period 1949-1975 there were three "confirmed" cougar kills, the latest in 1975 on the south side of the Arkansas River near Paris. Closer to us, however, there are a whole series of carefully documented, "reliable" sightings originating from the Winslow-Devil's Den-Lee Creek area of southern Washington County, one of the few viable cougar habitats in the state.

"The mountain lion or cougar lives in a variety of habitats," Sealander writes, "but usually tends to avoid the vicinity of man. It occurs in rough, rocky, wooded uplands, large tracts of bottom-land forest and swamps and remote mountainous regions of national forest." A look at the Peterson Field Guide to mammals shows that even though one species of cougar is still abundant in the western U.S., the Eastern Cougar (*Felis concolor*) has not been eliminated from its historical habitat in the eastern U.S. According to Dr. Sealander, the Arkansas cougar belongs to the subspecies *Felis concolor coryi*, which is commonly referred to as the Florida Panther. Like the eastern cougar, the Florida Panther is an endangered species.

The cougar of reality is every bit as awe-inspiring as the panther of Arkansas mythology. The largest of the three cougars whose deaths were reported was seven feet long and weighed 152 pounds. The long tail, vital as a reference point in sightings, accounted for one third of the body length. If you are ever walking in dense woods—or, as in the case of Barry Weaver, working on a cabin—and see a four-toed print approximately four inches long with a large paw pad, it may be evidence of a cougar.

"With respect to a four-toed print with a large pad, untrained observers frequently mistake large tracks of dogs and dog/coyote hybrids for cougar tracks, which they closely resemble," Sealander notes. "The front and hind margins of the foot pad are distinctive in the cougar. Presence or absence of claw marks is not always sufficient to set them apart. Neither is size alone."

According to the Arkansas Department of Planning's *ARKANSAS NATURAL AREA PLAN*, the reasons for the cougar's decline have been "unregulated hunting and trapping combined with a serious decline in the principal prey, White-tailed Deer" during the early 1900's. In *ARKANSAS MAMMALS*, Sealander writes, "Although there are still a number of sufficiently large, rugged wilderness areas with good deer populations in Arkansas, such areas are rapidly disappearing and remaining areas providing suitable

habitat for the mountain lion are in urgent need of preservation...." The eastern cougar, now rare, is on the federal Endangered Species List. It is illegal to hunt or trap the animal, and federal funds cannot be used on projects that would endanger its status.

Beginning in the 1960's, a whole series of development projects were planned which could have a large impact on the heavily forested and sparsely settled areas of southern Washington County. The most widely discussed project has been the proposed four-lane highway that would replace present Hwy. 71. One proposed route would cut through the heart of the cougar country, skirting the western edge of Devil's Den State Park. There have been numerous cougar sightings from this area.

David Wilson, an Arkansas Game and Fish wildlife officer, saw a cougar near Mountainburg in December of 1975. Paul Pollard, park ranger at Devil's Den, sighted a large cougar crossing Highway 170 between camp area "C" and "D" on July 4, 1978. Wally Scherrey, naturalist at Devil's Den, saw a half-grown cougar on August 20, 1978, only one and one-fourth miles from the park office.

Another project that would change the cougar country is the proposed Pine Mountain Dam on Lee Creek, a few miles west of Devil's Den. In July of 1979 the Corps of Engineers issued a Draft Environmental Impact Statement which said there'd been "no reports" of cougars in the Lee Creek Basin, a statement at wide variance with currently available information. The problem may be a failure on the part of the Corps to consult with local officials in charge of nearby facilities like Devil's Den, Lake Shepherd Springs, and Lake Fort Smith. When added to the potential changes a new highway would bring, Pine Mountain Dam and expected related developments would further shrink the cougar's home.

It is obvious from looking at a map that any large scale development in any single location between Fort Smith and Fayetteville could have unforeseen and largely unpredictable impacts on that whole system of forest, mountain and stream stretching across Lee Creek, Devil's Den and the million-acre Ozark National Forest.

According to the Corps of Engineers, the 12-county project area studied in connection with Pine Mountain Dam (including Fort Smith-Van Buren, Bentonville-Rogers-Springdale-Fayetteville, Ozark-Clarksville-Booneville and Poteau-Sallisaw-Tahlequah in Oklahoma) lost population up to 1960, but between then and 1970, the population rose from 305,000 to 375,000. By the year 2000 it may be 466,800. Fayetteville, for example, may increase to 69,000 by 1990. Part of this growth will be normal, or what we'd expect to happen as the nation's population increases. But some of this growth will be specifically induced by development projects.

This induced growth can be expected to drastically step up the pace of change between Fayetteville and Fort Smith. We need to thoroughly understand what's going to change, and the best way to understand it is to study the whole area, rather than studying it piecemeal, development-by-development.

Today, it appears that the cougar is not adverse to carrying on its secretive life near human habitations. In Lee Creek valley, private ownership of productive farmland has long co-existed with a vast semi-wilderness which not only supports the cougar, but is conducive to an extensive amount of recreation at small public expense, and almost no government sponsored development or taking of private property. But these large scale developments, and the induced growth expected to follow them, will change this traditional way of doing things. Tomorrow will be different, we know that. But how different? Do we know what we are going to give up in return for promised gains?

What I'm saying is that we may be losing not only the cougar, but also an irreplaceable fact of our heritage: not just a cougar, not just a wild animal, but a part of ourselves, a spirit that underlies our desire to live in the mountains of northern Arkansas where there is a reasonable balance between the works of Man and the works of Nature.

We can measure some of the tangible economic benefits of the proposed developments, but it is more difficult to measure the nontangibles, like cougars. How much is a cougar worth? Most of us will never see one in the wild, but that does not make it less valuable.

Back in May of 1970, Barry Weaver had an extraordinary experience. My guess is that he and many others would like to live in an Arkansas where there is a reasonable chance that it may happen again—to him, or to you.

# PADDLE TRAILS

Newsletter, Pulaski Chapter  
January, 1980

## A MESSAGE FROM THE CHAIRMAN

Now, as never before in our history, the Ozark Society needs to count among its members active and concerned citizens like you. The Seventies have been called the "Environmental Decade," with significant national legislation being passed that had a beneficial impact on wilderness, wildlife, clean air and clean water.

However, as we enter the Eighties, strong pressure is building toward creating a climate where economic considerations will be allowed to override environmental concerns. There are people, apparently, who consider the many intangible outdoor values that give joy to our lives as meaningless expendables. The Ozark Society, through the efforts of members like yourselves, has earned a reputation for constructive professionalism. We need to continue to be a firm but reasonable voice on the environmental scene as we enter a new decade. Speaking for myself and the other Chapter officers, we are excited about meeting the challenges of the Eighties in the tradition set for us in the Sixties and Seventies. We plan a full year of exhilarating outings, stimulating meetings and an opportunity to work on programs you believe in. We solicit your ideas and help as we face the challenges ahead. There will be many.

—Bob McKinney

## GOOD REVIEW FOR CADRON CREEK

Gazette Staff Writer Mike Trimble recently wrote a very fair and objective review of the Society's latest publishing effort, "Cadron Creek: A Photographic Narrative," by Lil Junas and the book is now available at local bookstores. Junas is generally known for her excellent "low key" black and white photographs, but the text of this book is equally interesting. As one member said, "I thought I knew a lot about Cadron Creek until I read Lil's book, she has detailed places and people I never knew existed."

Unfortunately, many other Arkansans don't know Cadron Creek exists at all. And a lot more of us need to know and care if Cadron is going to continue to exist as a unique free-flowing waterway. If you haven't already, order your copy of Cadron Creek now from Ozark Society Books, P.O. Box 3503, Little Rock, AR 72203. Mrs. Isabelle Richardson is processing book orders, at \$9.95, and doing a fine job. Make your check out to Ozark Society Books. The book is beginning to catch on, thanks to word-of-mouth and Trimble's review. The book is also slated for review in Arkansas Times and other area publications. After all, Cadron Creek is the best "close to home" canoeing available to those of us who live in central Arkansas.

## BNR AND THE "BOOB TUBE"

We have no doubt that at times the National Park Service can be as irrational and hard-headed as any other paper shuffling bureaucracy. But to paint them as uncaring land grabbers, scarfing up cemeteries and running people off their land at gunpoint to acquire the Buffalo National River lands is a little too much to swallow. But that's the way it came off on the Dec. 16 "Prime Time Sunday" program on NBC.

Those of us familiar with the history of the Buffalo National River got the strong impression that Jessica Savitch and the rest of the glibble NBC crew had been had by some clever Ozark tale spinners. We understand that the local affiliate, KARK-TV Channel 4, touted NBC on the Arkansas story, after being hoodwinked themselves in an earlier unprofessional story on RARE II and the BNR. The whole thing is getting out of hand. However, in deference to NBC, the Park Service officials interviewed did not exactly cover themselves with glory — coming off as either simpering clowns or black-hatted mortgage foreclosers.

The most glaring error on the program came when Savitch interviewed a landowner who claimed to have had guns pointed at him by National Park Service rangers. The rangers denied it. Nowhere did NBC point out that the land, on a strategic and scenic bluff, was about to be dynamited by a stubborn contractor who had ignored a letter from the state Highway and Transportation Department stating that they could not use gravel from the bluff if it was dynamited. The contractor went ahead and placed the dynamite in the bluff anyway, apparently out of spite. The Rangers were only responding to a court order that had condemned the site (which is within BNR boundaries) in the nick of time.

And then there's the cemetery. Fact is, the poorly cared-for cemetery was in bad shape when the NPS, in their innocence, tentatively considered taking it into the BNR so that it wouldn't completely disintegrate. Anti-BNR forces quickly seized on this emotional issue and battered the poor Park Service over the head with it.

Land acquisition by government bodies is a sticky issue at best. We can only wonder why NBC didn't sic its gimlet-eyed reporters on the Tennessee Valley Authority, now flooding hundreds of homesites and important Cherokee religious sites with Tellico Dam, or the Corps of Engineers, who routinely uproot ancestral homesteads without a whimper of protest from television moguls. But, that's show biz.

On the other hand, Park Service practices have raised a few questions in the minds of veteran Society members who remember some of the promises made landowners, and us, in the early Sixties when we lead the way toward passage of national river legislation. Why was Fred Dirst, the colorful old miner at Rush, hustled off his land at the mouth of Rush Creek when Park Service officials had promised that unique people would be given as much preference as unique landscapes? Whatever happened to the poignant plaque to a young Ozark Society member and friend, Warren Mallory Johnston, that once stood by the dining hall at Buffalo Point? That plaque had special meaning to a lot of us and now it's gone. And the NPS has done nothing to the Rush area that Fred Dirst couldn't have done better.

We need to continue supporting the BNR, while keeping one eye on the ever-shifting bureaucracy that drifts in and out to manage it. Park Service people come and go; we are here to stay.

## DON'T FORGET RICHLAND CREEK!

As expected, the planning session on the Richland Creek RARE II areas at Deer was dominated by local interests. However, there is still time to write your support for Richland wilderness to Mr. Jim Crouch, Supervisor, Ozark-St. Francis National Forest, P.O. Box 1008, Russellville, AR 72801. Hopefully, another planning session can be held at Little Rock soon.

(continued on page 12)

# Bylaws of The Ozark Society

## BYLAW 1. Name and Purposes

The name of this corporation shall be THE OZARK SOCIETY. The purposes of the Society shall be to promote the knowledge and enjoyment of the scenic and scientific resources of the Ozark-Uachita Highlands and surrounding areas, including their geological, historical, archeological, recreational and esthetic qualities; and, encouraging and cooperating with others who have similar purpose, to secure the perpetuation of these resources for present and future generations.

## BYLAW 2. Board of Directors

The government of the Society shall be entrusted to members serving as a Board of Directors having twelve positions. Eight of the Director positions shall be filled by members who shall also serve as officers of the Society: president, first vice-president; second vice-president; recording secretary; conservation chairperson; membership chairperson; treasurer; and editor, *Ozark Society Bulletin*. The remaining Director positions shall be filled by the immediate past president and by three members elected at large.

All directors except the past president shall serve for the next two calendar years following their election, and all shall serve until their successors are installed in office.

The board of Directors shall meet at least three times each calendar year, including meetings held in conjunction with membership meetings. Meetings shall be called by the president or by petition of a majority of the Board, with all members, if possible, being given at least ten days notice of a meeting. Two-thirds of all members, present or represented by written proxies, shall constitute a quorum.

The Board of Directors shall govern the Society, acting for its interests in any way not inconsistent with the law, the Society's articles of incorporation, and these bylaws.

**Removal of Officers and Directors.** An officer or director of the Society may be removed by a two-thirds majority vote of the membership present and voting at a properly called meeting of the Society.

**Vacancies in Officer and Director Positions.** If an elective office or directorship of the society becomes vacant, the president shall appoint a society member to fill the vacancy until the position is filled by election at the next meeting of the Society.

## BYLAW 3. Executive Committee

An Executive Committee consisting of the president, the past-president, first vice-president, second vice-president, recording secretary, and treasurer shall have power to act for the Board of Directors on such matters as the Board may delegate to it.

Four members of the Executive Committee shall constitute a quorum. All actions of the Executive Committee shall be by majority vote of the entire Committee, and shall be reported at the next Board meeting.

## BYLAW 4. Duties of Officers

The president shall preside at all meetings of the Board of Directors, the Executive Committee, and the general membership; call such meetings as he is empowered to call; define the responsibilities of all special committees and appoint and remove their members; by *ex officio* member (without vote) of all standing committees; exercise general supervision over the affairs of the Society; enforce these bylaws; be an *ex officio* trustee of The Ozark Society Foundation; and have such other powers as may be designated by the Board of Directors.

**First Vice-President.** This officer shall function in the place of the president in the latter's absence or incapacity. He shall assist the president in the conduct of the organizational and

administrative affairs of the Society. The duties will include the organization of new chapters, and public relation activities. He shall be responsible for arranging meetings of the Society.

3. The second vice-president shall chair the Outings Committee; oversee the programs of the Society in the area of outdoor recreation; and act in the place of the president during the absence or disability of both the president and first vice-president.
4. The recording secretary shall have charge of the official corporate records and function as the corporate secretary of the Society, maintaining its office of record; prepare and deliver agenda and announcements of meetings; keep minutes of meetings of the Board of Directors and Executive Committee, and of business meetings of the general membership; have charge of the Society's manual on procedures and inventory of property.
5. The membership chairperson shall receive and process all membership applications and renewals and related material, forwarding dues to the treasurer and providing membership cards to new members; maintain membership records as required by law and by the Board of Directors; and chair the Membership Committee.
6. The treasurer shall, under the general supervision of the Board, have custody of the funds of the Society; disburse and invest the Society's funds in interest bearing accounts; keep proper books of account; submit to the Board and to the membership reports of the financial affairs of the Society at the end of each calendar year and at such other time as may be required; and serve *ex officio* as a trustee of The Ozark Society Foundation.
7. The editor shall prepare and publish *The Ozark Society Bulletin* and serve as a member of the Advisory Council.
8. The conservation chairperson shall chair the Conservation Committee and be responsible for the conservation activities of the Society.

## BYLAW 5. Nomination and Election of Directors

**Nominations.** Nominations to elective officer and director positions shall be made by a nominations committee composed of five members who will be elected by the Board. No more than two members of the committee shall be members of the Board. The committee shall transmit its list of nominees to the secretary at least forty-five days prior to the annual meeting. The secretary will notify the membership of the names of the nominees at least thirty days prior to the annual meeting. Nominations may also be made from the floor at the annual meeting. The election shall be conducted at such a time during the annual meeting to enable maximum participation of the membership. The officers and directors shall be elected by a majority of the members present and voting at a properly called meeting.

## BYLAW 6. Standing and Special Committees

1. Standing committees shall be appointed by the president with advice and consent of the Board of Directors. Standing committees (and those who chair them) shall be: Conservation (conservation chairperson) and Membership (membership chairperson).
2. Special committees shall be appointed by the president with advice and consent of the Executive Committee. The president shall also define the responsibilities of each committee and have the power to remove members for cause. Special committees shall include, but not be limited to: Awards, Audit and Bylaws.

## BYLAW 7. Membership

1. The membership of the Society shall consist of persons twelve years of age and over who are interested in supporting the Society. All members by joining affirm their intention to



comply with the provisions of these bylaws. Each member of the Society has one vote.

Classes of dues paying membership and the dues structure shall be:

**Regular.** An individual.

**Family.** Head of family, spouse, and unmarried children living at home.

**Contributing.** An individual or family. Dues include an amount in excess of that needed for basic member services, which contributes toward carrying out Society projects.

**Sustaining.** An individual or family. Dues include an amount substantially in excess of that needed for basic member services, which aids in sustaining programs of the Society.

**Life.** An individual. One pre-payment of dues sufficient to generate continuing income to provide basic member services for the member's lifetime, while allowing use of the principal to further major works of the Society.

An organized group having interest related to those of the Society, wishing to cooperate with the Society in its programs, may pay a fee to cover cost of receiving the *Ozark Society Bulletin* and other major mailings. Non-voting, non-participating membership.

Annual dues amounts for regular and family members shall be recommended by the Board of Directors and approved by a two-thirds majority of all members present and voting at a general membership meeting. Dues for other classes of membership shall be set by the Board.

Membership shall terminate upon the death, resignation, or expulsion of a member, or for non-payment of the annual dues after a ninety-day grace period.

The annual dues are for the calendar year.

#### **BYLAW 8. Meetings of the Membership**

There shall be at least one meeting of the Society's general membership each calendar year. The entire membership shall be given at least thirty days' notice of the time and place for this meeting.

Other meetings of the membership may be called by the Board of Directors; by a majority of the membership present and voting at any previous meeting; or by a petition in writing by forty or more voting members, delivered to the recording secretary. The president shall designate the time and place for a called meeting, allowing the entire membership at least thirty days' notice of the meeting.

Any number of voting members present at a membership meeting shall constitute a quorum, provided that proper notice of such meeting has been given as specified in paragraph 1. or 2. above. Only those voting members who are present in person at meetings shall be eligible to vote.

#### **BYLAW 9. Chapters**

Members of the Society may, upon approval of the Board of Directors, form a chapter of the Society. At least ten voting members residing in a local area shall first apply in writing to the Board, stating their purpose, the proposed name of the chapter, and the chapter's proposed territory.

Within ninety days after receiving notice of the Board's approval, the applicants shall hold an organization meeting, adopting bylaws and electing officers for the chapter. Upon adoption, the bylaws shall be submitted to the Board for approval. Upon approving the bylaws, the Board shall formally charter the new chapter.

Each chapter is authorized to participate and cooperate in supporting the activities and goals of the Society. Each chapter is authorized to undertake activities and support projects which are consistent with the purposes of the Society. Major undertakings involving matters of Society policy shall be submitted for approval by the Board, or by a meeting of the Soci-

ety's membership, before a chapter is permitted to initiate action or support.

4. Each chapter shall control its own finances, levying its own dues which shall be separate from and in addition to membership dues for the central Society. Each chapter shall control the admission of its members and their dismissal from the chapter. Dismissal from a chapter shall not constitute dismissal from the Society.
5. The Board of Directors, by a two-thirds majority vote at a regularly scheduled meeting, may suspend or annul a chapter charter if they deem that a chapter has taken action inconsistent with the policies of the Society. Before any vote is taken on suspension or annulment, the recording secretary shall give notice to the chapter involved and allow the chapter a reasonable time for presenting arguments or for complying with requests which the Board may make. Suspension or annulment of a chapter shall not affect the standing of any member of that chapter as a member in the Society.

#### **BYLAW 10. Advisory Council**

1. The Advisory Council consisting of the chairman of each chapter or the chairman's representative; and the editor of the *Ozark Society Bulletin* shall function to make recommendations to the Board and to act upon matters delegated to it by the Board. The Council shall elect a chairman and establish its own rules of procedure.
2. The Council shall meet in conjunction with general membership meetings, or on call by petition of a majority of the Council members or by the Council chairman. Council members shall be given at least thirty days' notice of regular meetings and ten days' notice of called meetings. Three or more Council members present at a duly called meeting shall constitute a quorum. Each recommendation submitted by the Council to the Board shall indicate the number of members present and voting in favor of the recommendation.

#### **BYLAW 11. Honors and Awards**

1. The President, at his discretion, may each year appoint an Awards Committee to select members or others for Awards by the Society's in recognition of distinguished service. The nature of such awards shall be decided by the Committee with advice from the president and the Board.
2. Any member of the Society may propose a candidate, or candidates, for any honor or award.
3. The Neil Compton Award, established in 1973, honors Dr. Neil Compton who founded the Ozark Society and served for ten years as its first president. It is given to an outstanding conservationist who furthers the ideals of the Society. The president shall appoint a three-person awards committee before the meeting to nominate a candidate to the Board.

#### **BYLAW 12. Member Safety and Conduct**

1. The Society shall exercise due care to safeguard the persons and property of all participants in Society activities. All members, by joining, agree to abide by the decisions of the officers and activity leaders concerning safety during Society activities. Members and guests shall understand that the Society arranges for such activities for the accommodation of said members or guests, and that all participants in Society activities at their own risk without the Society as an organization being liable in case of loss or injury.
2. Complaints about a member's conduct considered detrimental to the Society shall be investigated and, if possible, adjusted by the Membership Committee, with opportunity for the member in question to present evidence in the member's own behalf. If the Committee recommends suspension or expulsion, the complaint shall be referred to the Board. If the Board, by a two-thirds vote of members voting, shall decide the member shall be suspended or expelled, formal notice shall be sent the member. The member shall within thirty days have the right of a hearing by a review committee of three former elected officers of the Society. The Board shall select the review committee. Their decision shall be final.

#### BYLAW 13. Financial Audit

The president shall appoint an Audit Committee composed of three members who hold no other office in the Society, who shall examine the financial records of the Society at the end of the current calendar year and report to the Board of Directors. The Board of Directors will make known the Audit Committee's report to the membership.

#### BYLAW 14. Dissolution

1. Upon dissolution, the Board of Directors shall dispose of the remaining assets of the Society, after payment of all debts and discharge of all liabilities of the Society, to such nonprofit entity, organized and operated exclusively for conservation, education, or scientific purposes, then qualifying as an exempt organization under Section 501(c)(3) of the Internal Revenue Code of 1954 (or the corresponding provision of any later United States Revenue Code) as in the judgment of the Board of Directors is best qualified to promote the programs and purposes of the Society.

#### BYLAW 15. Construction of Bylaws, and Procedures

1. All questions as to construction or meaning of these bylaws shall be settled by a majority vote of the Board of Directors.
2. All procedures not described by these bylaws shall be governed by the current edition of *Robert's Rules of Order, Revised*.

#### BYLAW 16. Amendments

Amendments to these bylaws may be proposed by a two-thirds majority of the Board of Directors, or by written petition signed by not less than 40 voting members and delivered to the recording secretary. The Bylaws Committee shall consider and approve the form of the proposed amendment and inform the entire membership of its content not less than thirty days before the next general membership meeting. At the meeting the proposed amendment shall be voted on by all members present and in good standing, and shall take effect if approved by a majority of those voting.

Adopted November 4, 1979

## RESOLUTIONS

### Ozark Society Fall Meeting

WHEREAS: the Mulberry River lawsuit is vital to continued stream recreation in Arkansas. WHEREAS: the Ozark Wilderness Waterways Club has generously financially supported the Mulberry River Legal Fund. BE IT RESOLVED: that the Ozark Society at its Annual Fall Meeting recognizes the unselfish and beneficial support provided by the Ozark Wilderness Waterways Club.

WHEREAS: natural resource management in Arkansas is currently the responsibility of a myriad of individual agencies which often have overlapping and conflicting jurisdictions. WHEREAS: wise natural resource management will be the key to meeting the needs of all Arkansans in the future. BE IT RESOLVED: that the Ozark Society at its Annual Fall Meeting urges Governor Clinton to initiate efforts to consolidate these agencies into a centralized Department of Natural Resources.

WHEREAS: it is recognized that the municipalities along the Arkansas River valley will have increasing needs for water supplies now and in the future. WHEREAS: the high quality, free flowing tributaries of the Arkansas River are being considered for impoundments to supply this water. WHEREAS: the Ozarks Regional Commission will be under increasing pressure to fund studies relative to this issue. BE IT RESOLVED: that the Ozark Society at its Annual Fall Meeting urges the Ozarks Regional Commission to fund studies which explore alternative water supply sources including but not limited to the Arkansas River, deep wells, existing reservoirs, and impoundments.

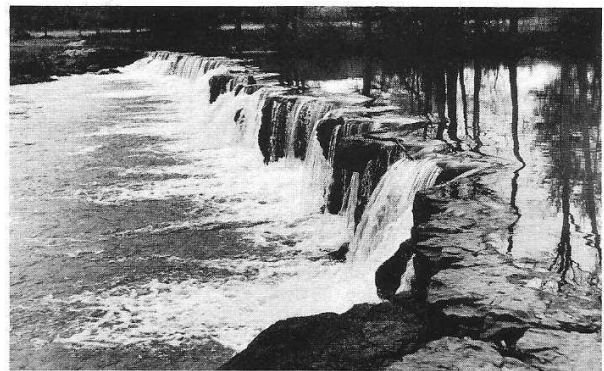
## WILSON TO HEAD G&FC

Steve Wilson, the immediate past president of the Society, was recently named director of the Arkansas Game & Fish Commission, filling a vacancy that has existed since the departure of Andrew Hulsey.

Wilson, a native of Batesville, is perhaps the best trained person to ever hold the director's position. He grew up hunting and fishing in the upper White River country and the Devil's Fork and other tributaries of the White and Little Red Rivers. He received his bachelor's degree in wildlife management from Arkansas Tech University and his master's degree from the University of Arkansas at Fayetteville. He did his master's thesis on deer reproduction, worked extensively on the dog-deer study, and has completed his course work for a Ph.D. in zoology. He also has worked for the National Park Service at Yellowstone and for the Commission as a wildlife biologist in southeast Arkansas. It was Wilson who conceived the practice of planting wildlife food and cover on Arkansas Power & Light Company rights-of-way in areas where this proved practical for erosion control. He has been described as a unique blend of wildlife manager and conservationist in addition to having extensive administrative experience.

## NEIL COMPTON AWARD GOES TO EVERETT BOWMAN

Everett Bowman of Little Rock, one of the charter members of our Chapter when it was formed at Little Rock in 1962, was presented the Society's highest honor, the "Neil Compton Award," at the Society's fall annual meeting near Huntsville. Society President Bill Wiggins commented that he thought Everett was going to pass out when his name was called. Bowman admitted to being totally surprised by the honor. He was also presented with a framed photograph of the beautiful and unusual "Twin Falls of the Devil's Fork" taken by photographer Kenneth L. Smith. Everett and his wife, Frances, live at 24 Sherrill Heights.



The Front Cover of Vol. XIII, No. 2, Natural Dam on Mountain Fork of Lee Creek, Crawford County, Arkansas was by Ken Smith.

# Botanical Notes

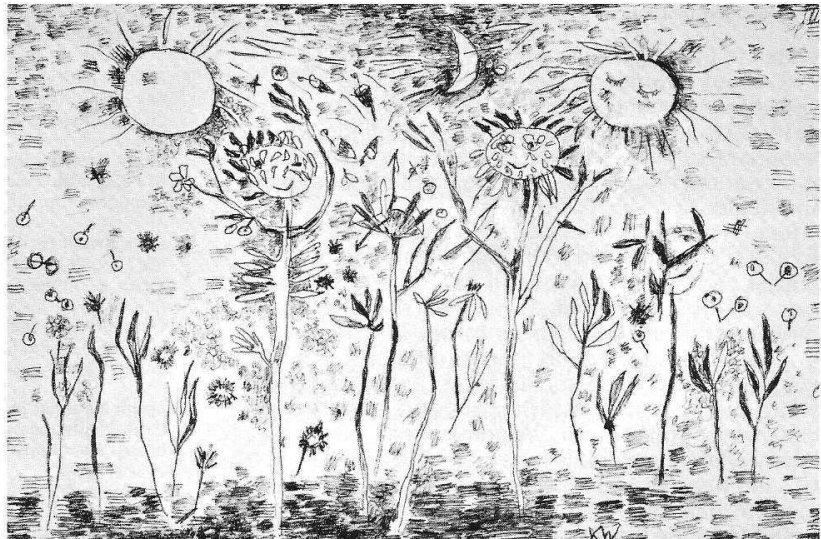
Maxine Clark

Why do certain plants flower only in the spring, others in the long days of summer, some in late summer and autumn, and another group at any season provided temperature and moisture are adequate to sustain growth? The stage of development which must be attained before a plant is capable of flowering is known as "ripeness to flower" and is dependent on two factors, temperature and the relative length of day and night known as "photoperiodism".

In 1920 Wightman Garner and Harry Allard, two plant physiologists with the U.S. Department of Agriculture, through intensive research, first established the principles of photoperiodism, a seasonal factor shown to be the relative length of day and night. During the summer season the duration of the daily period of solar illumination is greater than 12 hours, but in the winter it is shorter than 12 hours. Using the simple technique of growing plants in greenhouses having different artificially controlled day lengths, Garner and Allard achieved long days of summer in the winter by using electric lamps, and short days of winter in the summer by darkening the plants during a portion of the day. The immediate problem was to improve tobacco production and concerned a new variety called Maryland Mammoth, a spontaneous mutation from a commercial variety. It grew to heights of 10 - 15 feet and produced as many as 100 leaves on a single plant (lots of cigars in one field). But it would not flower and set seeds before the onset of fall frosts, and of course seeds were needed for propagation. Plants that were moved into the protection of a greenhouse just before cold weather set in eventually flowered in late fall. After experimenting with many factors which might be responsible for the delayed flowering, they finally asked the correct question: Could the time of flowering be determined by the length of day?

Because of the tilt of the earth's axis, the hours of daylight change greatly during its annual journey around the sun. In Washington, D.C., there are 15 hours of daylight on June 21, but just before Christmas there are 9½ per day. Garner and Allard proved that the flowering of Maryland Mammoth tobacco does depend upon day length, in this case, 13 - 14 hours.

The sensitivity of plants to length of day could determine the particular season, even the week of initial blooming. This may explain why certain plants occur in certain lati-



Kathrine Winckler

tudes since day length is dependent on latitude as well as season. The research has been tremendously important in commercial agriculture and horticulture.

Further research revealed that plants fall into three broad photoperiodic classes: Short-Day, Long-Day, or Day-Neutral.

Short-Day plants are those which flower when hours of daylight are less than a particular critical length. Examples are soybeans, 14-16 hours of daylight (will not bloom under 17 hour conditions), asters, chrysanthemum, poinsettias, ragweed, golden-rods, and cocklebur. Cocklebur was chosen for much of the research on short-day plants since it was found it could tell the difference between 8 hours of darkness (no flower buds formed) and 8 hours and 40 minutes (flower buds formed). The story is told that some of the early research was lost when some irate congressmen discovered the large greenhouse space devoted to cockleburs and ordered the entire lot destroyed.

Long-day plants bloom in late spring and early summer, usually in response to day length exceeding a critical length (usually more than 12 hours). Examples are black-eyed Susans, hollyhocks, sweet clover, and dill.

Day neutral plants are not particular about day length and include tomato, corn, cucumber, most varieties of tobacco, chili pepper. Some varieties of tomato will flower when the stem has 13 nodes.

What part of the plant is sensitive to the changing day length? Two cocklebur plants, one of which was stripped of all its leaves, were subjected to nine hour nights. Only the plant with leaves produced flowers buds; it was

established that if only one eighth of a leaf was left, flower buds would form. Since the leaves are remote from the portion of the stem where flower buds are formed, a traveling stimulus was suspected. Two plants were grafted together at the bases of their stems; one plant had been exposed to long days which inhibits flowering and the other to short days which induces flowering. Both plants flowered and the unknown substance which produces this stimulus has been named florigen.

**SURPRISE!** Early in the study of photoperiodism, it was assumed that if a plant needed a certain number of hours of daylight to flower, darkening it for a period in the daytime would prevent flowering. But the black-outs had no effect on flowering.

However, turning on of lights for a short interval in the middle of the night did alter the flowering pattern. Brief periods of light during long nights did prevent flowering in cocklebur, and initiate flowering in long day plants which had been kept under short-day conditions in a greenhouse.

In other words, short-day plants are really long night plants while long day plants are really short night plants. This holds much interest for those of us who have followed the succession of bloom from the first bloodroot, trout lily, and shooting star of early spring to the tall sunflowers, golden-rods, and asters of autumn.

## LITERATURE CITED:

1. Palmer, John D., The Rhythm of the Flowers - Natural History Magazine Aug.-Sept. 1971
2. Bonner, James and Galston, Arthur W. - Principles of Plant Physiology, W.H. Freeman & Co., San Francisco, 1952



relates to Forest Service lands.

In all our efforts to develop programs and to work with the public, our objective is to provide and promote balanced use and management of the varied resources of the National Forests—as well as all other natural resources—that serve the needs of all Americans.

Recently, I read the “Letter to the Editor” of the *Arkansas Gazette* sent in by Bill Wiggins of your organization. Two paragraphs in particular impressed me. I quote: “Without bowing to the short-term thinkers, it is possible for us to opt for reasonable programs: Conservation, more efficient material usage, recycling and reclamation, and exploration within public and private lands not designated for wilderness status.” Mr. Wiggins went on to say “Many changes and adjustments in the way in which we lead our lives may be necessary, but these can occur in harmony with the overall national interest and without the sacrifice of our supporting base systems.”

Mr. Wiggins, I believe you're right on track with this position. I believe it supports what we in the Department are trying to achieve.

I have a great deal of respect for the goals and objectives of the Ozark Society. I am aware that in your 16 years of history, you have become recognized nationally and your work is welcomed and appreciated by large numbers of people. I am aware of your efforts in providing sound input to forest planning efforts in Arkansas over the past several years.

We need the help of organizations like yours. You have cooperated with us openly and vigorously in the past. We look forward to continuing this productive relationship. ♡

## The Ozark Trail in Missouri

(from *The Whitewater News*,  
H.R. Schoolcraft Chapter)

Many people who enjoy exploring the natural, quiet, and undeveloped areas of Missouri have contemplated a trail which would travel through and connect some of Missouri's public lands. The Ozark Trail will do just that. Through cooperative efforts of state, federal, and private organizations, the Ozark Trail is becoming a reality.

The Ozark Trail will begin at Meramec State Park and will extend south along the Meramec River to the Huzzah Wildlife Management Area. The trail will then enter the Salem-Potosi district of Mark Twain National Forest connecting with both the Berryman and Trace Creek trails. From this point it will proceed in a southerly direction across Pioneer Forest toward the Ozark National Scenic Riverways. Leaving the Current River area, the trail will cross Peck Ranch, enter the Winona District of Mark Twain National Forest and go south to the Eleven Point River. This covers about 150 miles. ♡

## WHERE TO GET INFORMATION ABOUT THE OZARKS AND OUACHITAS IN ARKANSAS/MISSOURI/OKLAHOMA

by Ken Smith

**Buffalo National River**, Box 1173, Harrison, AR 72601; 501-741-5443. Information folder-map. List of commercial canoe rentals/shuttle services. Info. on Buffalo Pt. restaurant/cabins.

**Ozark National Scenic Riverways**, Box 448, Van Buren, MO 63965; 314-323-4236. Folder-map of Current & Jacks Fork Rivers. Lists of campgrounds, other facilities, & books & maps to buy.

**Mark Twain National Forest**, Box 937, Rolla, MO 65401; 314-364-4621. Folder-map of Eleven Point National Scenic River. Camping areas. Hiking/riding trails. Prices for detailed maps.

**Ouachita National Forest**, Box 1270, Hot Springs, AR 71901; 501-623-7763. Trails (Ouachita & others). Ouachita R. float. Recreation areas (camping, etc.). Caney Cr. Wilderness map 50¢.

**Ozark National Forest**, Box 1008, Russellville, AR 72801; 501-968-2354. Hiking/backpacking trails-areas. Mulberry River. Recreation areas. Blanchard Springs Caverns. Rental cabins.

**Arkansas Dept. of Parks & Tourism**, State Capitol, Little Rock 72201; 501-371-1511. Hiking trails. Float streams. Bike tours. State parks (Tell them which park you're interested in).

**Missouri Div. of Parks & Recreation**, Box 176, Jefferson City 65102; 314-751-3443. Missouri's 150-mile Ozark Trail. Bicycle tours. State park trails, wild areas, camping, lodging, etc.

**Oklahoma Tourism & Recreation Dept.**, 500 Will Rogers Bldg., Oklahoma City 73105; 405-521-2409. Trails Guide. Campers Guide. State Parks; specific data on any park you ask about.

**Arkansas Highway & Transportation Dept.**, Box 2261, Little Rock 72203. **Missouri Highway Department**, Highway Building, Jefferson City 65101. **Oklahoma Transportation Dept.**, 200 N.E. 21st St., Oklahoma City 73105. (County maps showing many backwoods roads. Ask for map prices.

**U. S. Geological Survey**, Box 25286, Federal Center, Denver, CO 80225. Free INDEX TO TOPOGRAPHIC MAPS OF ARKANSAS (or MO, or OK). USGS topo maps are the best kind for hiking trips.

**Arkansas Geological Commission**, 3815 W. Roosevelt, Little Rock 72204. **Missouri Dept. of Natural Resources**, Div. of Geology, Rolla 65401. **Oklahoma Geological Survey**, 830 Van Fleet Oval, Norman 73069. (USGS maps for sale. Books, etc., on Ozark or Ouachitas geology.

**Arkansas game & Fish Commission**, #2 Natural Resources Dr., Little Rock 72205. Float maps of White, Buffalo, Little Red and Spring Rivers (Tell them which river you're interested in).

**Missouri Conservation Dept.**, Box 180, Jefferson City 65102. Mo. natural areas. Books: MO. HIKING TRAILS \$1; MO. OZARK WATERWAYS \$2; MO. WILDFLOWERS \$4. Mo. residents add 4-1/8% tax.

**Oklahoma Dept. of Wildlife Conservation**, 1801 N. Lincoln, Oklahoma City 73105. McCurtain County Wilderness Area (natural area in Ouachitas). Wildlife publications; ask for list.

**Arkansas Forestry Commission**, Box 1940, Little Rock 72203. Book TREES OF ARKANSAS \$2.

**Recreational Publications**, Box 18937, Memphis, TN 38118. Big maps, much info.: OZARK SCENIC RIVERWAYS GUIDE (Current, Jacks Fk. & Eleven Pt.) \$3.00; BUFFALO NATIONAL RIVER GUIDE \$2.75.

**Weyerhaeuser Co.**, Public Affairs, Box 1060, Hot Springs, AR 71901. Recreation Maps show roads. Ask for CENTRAL AR map (Hot Sprs. area); or S. W. AR (Glenwood to OK); or OK (Little R. basin).

**International Paper Co.** Visit IP's timberland offices at Arkadelphia, Malvern or Nashville, AR (Ouachitas), or Russellville, AR (Ozarks) to get maps of IP lands suited for recreation. ♡

# Ozark Society Activity Schedule

BOB RITCHIE, OUTING CHAIRMAN  
1509 OLD FORGE DRIVE, LITTLE ROCK, AR 72207 RES. PH. 501-225-1795

Dates and trips are subject to change. Before you go on an outing, please contact the trip leader to confirm meeting times and places, and to let him know you are coming.

## PULASKI CHAPTER

JAN. 12-13: North Fork, Illinois Bayou, backpack trip, leader Dick Byrd 225-7354.  
JAN. 19-29: Ozark Exploratory Backpack, Paul Pipkin, leader, contact is Bob James 225-9360.  
FEB. 2-3: Steel Creek (upper Buffalo) Car Campout, day hikes to Snead Creek, Goat Trail, H-In-Hollow, leader, Bob James.  
FEB. 16-17: Maumelle Trail Work Weekend, leader, Bob James.  
FEB. 24-MARCH 2: Big Bend National Park, Texas, hiking and canoeing trip, leader, Bob James.

## INDIAN NATIONS CHAPTER

JAN. 5: Cedar Hollow - Day Hike  
JAN. 12 & JAN. 19: Snow hike and chili supper. Call Stanbergs (835-4071) if we have snow.  
JAN. 26: TCC & Ozark Society - Osage Hill State Park, Hi. 60, Bartlesville - check with Kendalls (937-1839).  
MARCH 15-22: Big Bend with TCC - Leader: Rob Ord (627-7927).  
JULY 27-AUG. 2: Anyone for Colorado? Call Alan Aheberle (838-0168).  
SEPT. 20-27: Backpack Grand Canyon with Paul Kendall.

## MISSISSIPPI VALLEY CHAPTER

JAN. 8: Robin Harris from the Missouri Conservation Department presented a film on what the changes in season mean to wildlife. He also talked about their Up With Wildlife program.  
JAN. 13: A field trip to watch eagles at the Pine Hills area of the Union County Wildlife Refuge in Southern Illinois.  
FEB. 12: Mike Otten from the local Astronomy Club will tell us about the stars. The Bell Mountain Wilderness and our coming outing there will be discussed.  
FEB. 24: A day hike into the Bell Mountain Proposed Wilderness Area near Ironton, Missouri. This is a spectacular area. Bob Strong, leader, Ph. 334-4298.  
MAR. 11: A member of the Ozark Trail Council will talk about the Ozark Trail System. Building and maintenance of the trail will be partly through volunteer assistance, and we hope to take part in that effort.

### Other tentative Outings:

Learn how to cross-country ski! If we get the snow, you will get your chance. We can rent skis from Ozark Outdoor Equipment. If you want to join the fun call Monty Heise at 335-1321 and ask that you be put on the calling list. Then if conditions are right you will be notified when and where.

We still want to do a winter float trip in the snow if possible, if we can find enough hardy bodies willing to go. The Ozark rivers are totally different, and perhaps even more beautiful in the winter. Call Al Agnew at 243-7347 if you're interested.

In APRIL the chapter wants to sponsor a back-packing seminar for practical in-the-field instruction. If you feel you can offer any assistance, contact Monty Heise or Brenda Lipe. Watch for details.

## ANNOUNCEMENT OF ANNUAL SPRING MEETING OF THE OZARK SOCIETY

The Annual Spring Meeting of the Ozark Society will be on April 12, 13, 1980, at Lake DeGray State Park. The program will center around conservation in State Government. The ideas expressed in the resolution passed at the Annual Fall Meeting on November 3, 4, 1979, concerning the formation of an Arkansas Department of Natural Resources will be explored. **MARK YOUR CALENDAR NOW AND PLAN TO JOIN US!**

## Dues Notice

Please send in your dues for 1980.

Fill out the blank below and send it with your check to Steve Shepherd,  
Membership Chairman, The Ozark Society, Box 2914, Little Rock, Arkansas 72203

Dues are for the calendar year. They are regular (and family), \$5; contributing, \$10; sustaining, \$25; life, \$100

Please check: new member: \_\_\_\_\_ renewal \_\_\_\_\_ Date \_\_\_\_\_

Last name \_\_\_\_\_ first names of husband and wife \_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Telephone \_\_\_\_\_



**"It's cold outside"** — Joe Clark