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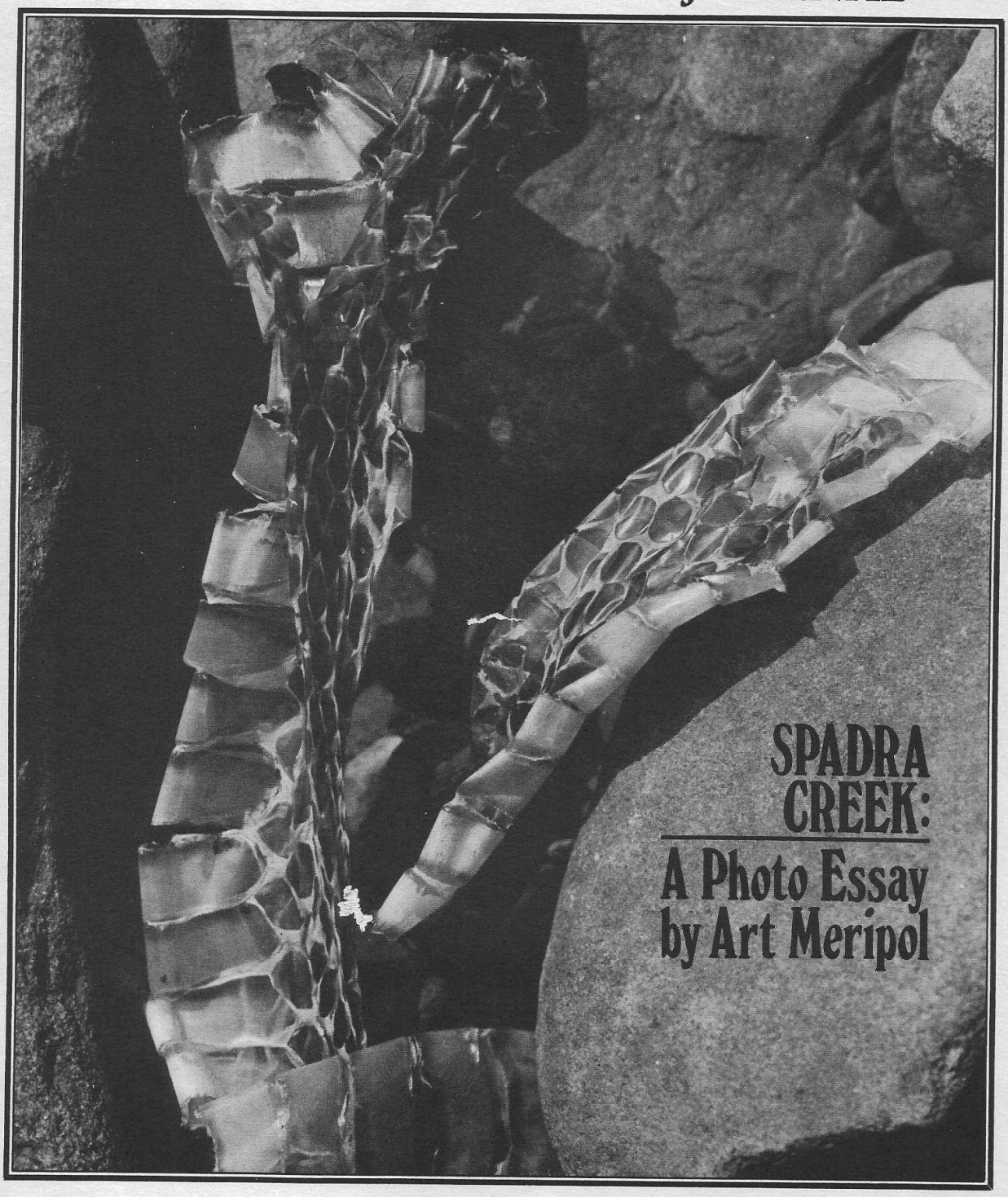

SPADRA CREEK:

A Photo Essay by Art Meripol

Listening To The Drought

Nothing tells us we must care for our water resources as eloquently as a drought. The memory of one sears itself into our brainpans. Two droughts in four summers reinforces the point with a vengeance. Leaves, dead before their time, crackle along the street, blown by a dry wind. Colors in trees, crops, the sky — fade, and time seems held in an eternal haze. A friend, in the summer of 1980, said she understood how the plants felt, for she too felt irradiated by the constant, dry brightness. A drought dehydrates everything it touches.

Of all the peoples on earth, we are among the most insulated from the effects of a drought. We can air condition our immediate enviroments. We have crop surpluses from past years to draw on. And most municipal water supplies have been able to keep the taps flowing — yet still a drought scorches. It is like being turned towards a fire, for, despite our comforts, a drought forces us to face one of the hottest, most uncomfortable issues today, the finiteness of water.

There are a few givens. Water either falls from above or is drawn from below, there are no other sources. We may capture it, drill for it, pump it up or divert it, and still we must rely either on rainfallen surface water or underground reservoirs. Droughts are natural occurrences; they were plaguing humankind in woefully recorded cycles long before our race ever began tampering with the planet's hydrological system. One has to wonder though, what role global deforestation has played, if any, in these two most recent droughts. Before villagers gathering firewood, at the hands of hungry farmers scratching out a few more acres for corn, and at the feet of multi-national timber companies the world's forests are retreating. Atmospherically, this continual reduction of the planet's respiratory system is like a hacking away at our lungs. How even a small adjustment in the earth's ability to breathe affects the little clouds that surround it no one knows. So the reliability of our future rainfall has at least an iffy edge.

Nor is any comfort to be found below ground. The water table beneath the Arkansas grand prairie has dropped as much as forty feet since World War II, and the extensive drain on it this summer for emergency irrigation has emptied the coffer still more. Our pumps are faster than nature's slow, cleansing percolation system, so the supplies of centuries are easily sipped away. As though that were not dicey enough, we have further jeopardized our groundwater supply in many places by careless disposal of hazardous waste. When it comes to protecting this essential fluid of life we can be very cavalier.

Water issues will always be the special domain of the Ozark Society, which was founded as a citizen response to the proposed mismanagement of one of Arkansas' most beautiful water resources, the Buffalo River. That signal direction having been set, we must now extend our concern to other water-related follies. Articles in this issue by Carol Griffee, Art Meripole and Neil Compton focus, in very different ways, on the fragility of Arkansas' free-flowing streams; future articles in the *Journal* will examine the failure of the last attempt at establishing an Arkansas water code and the urgency of the need for a good one. We must be watchful, thorough in our science and committed, for if there is anything to be heard in the dry rustle of a premature autumn, it is the reminder that in some parts of the world drought has become a way of life.

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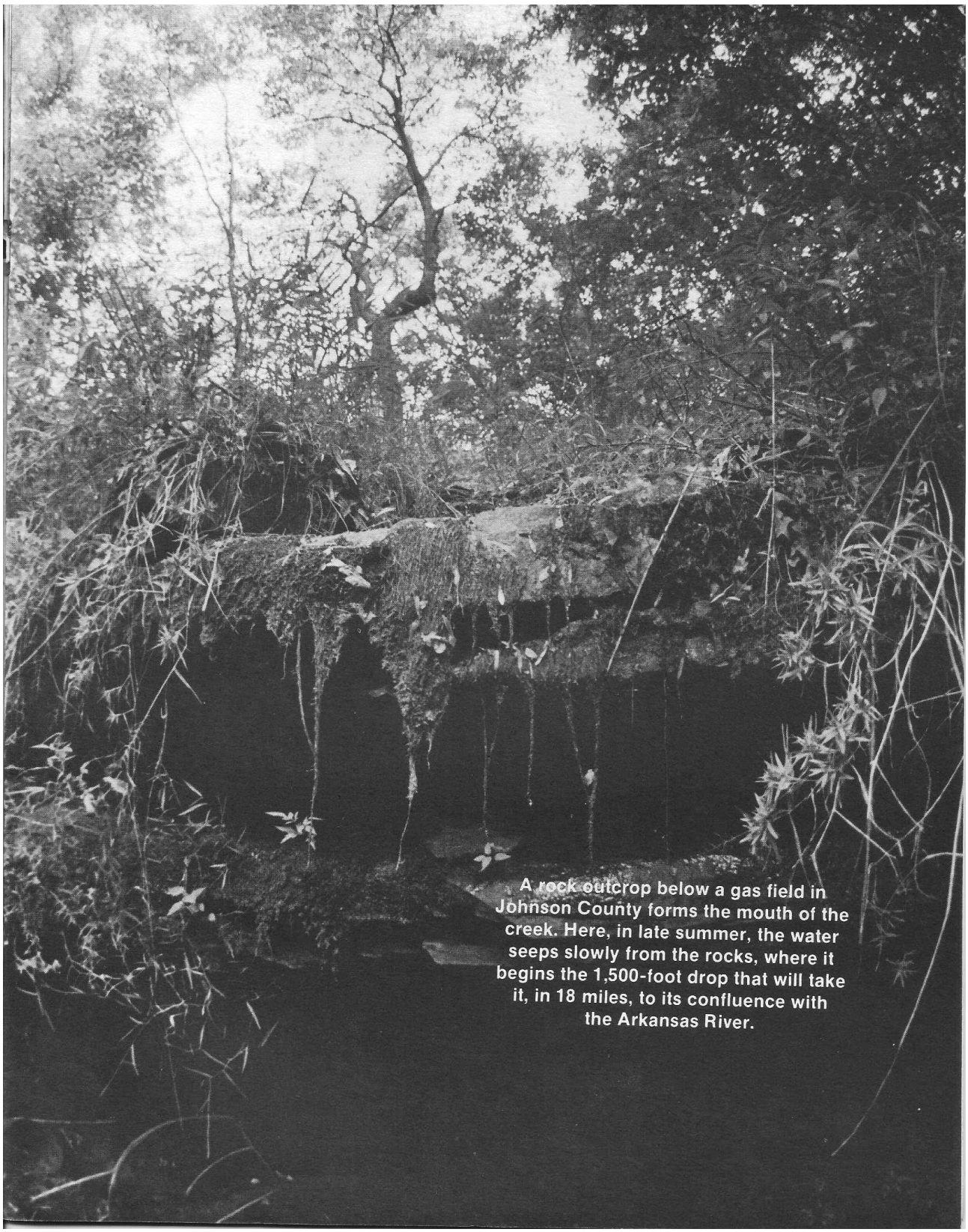
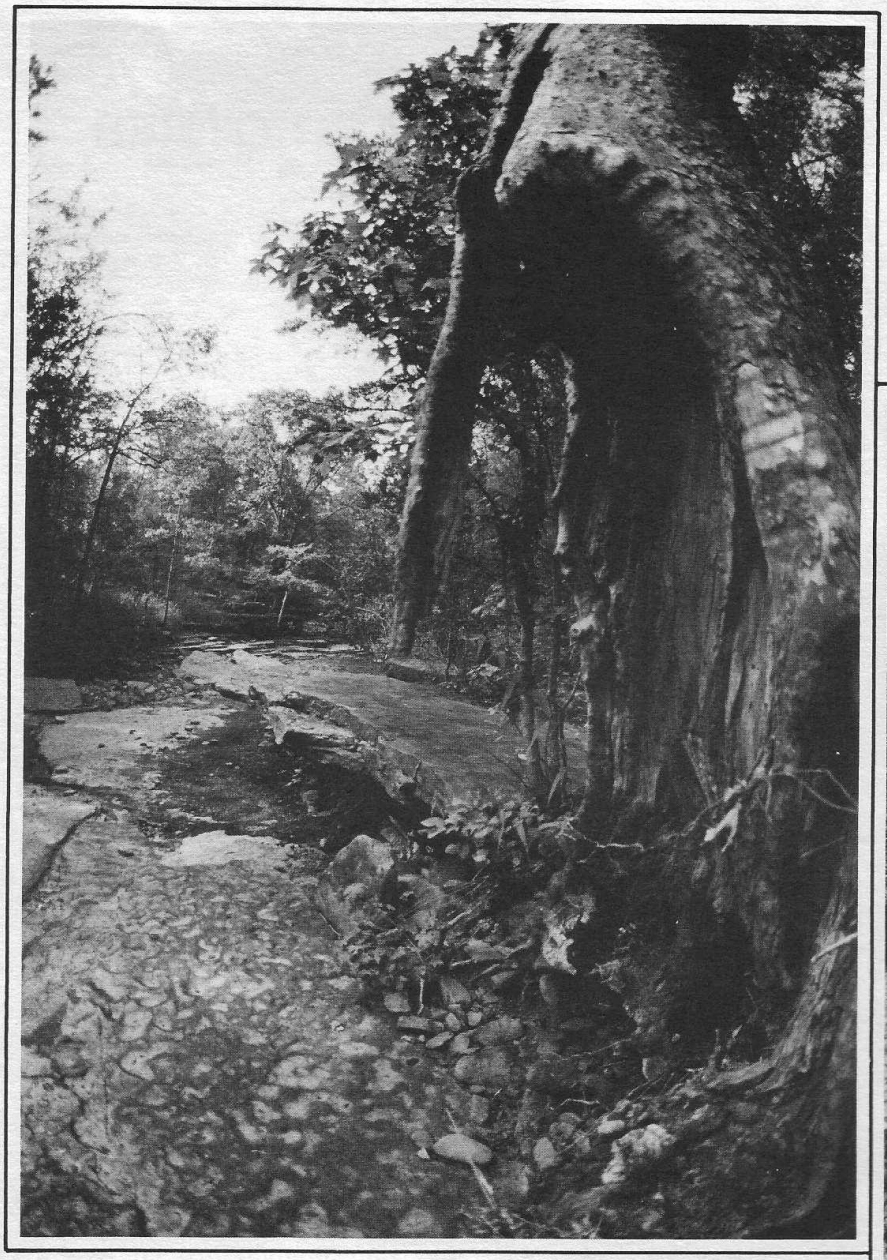
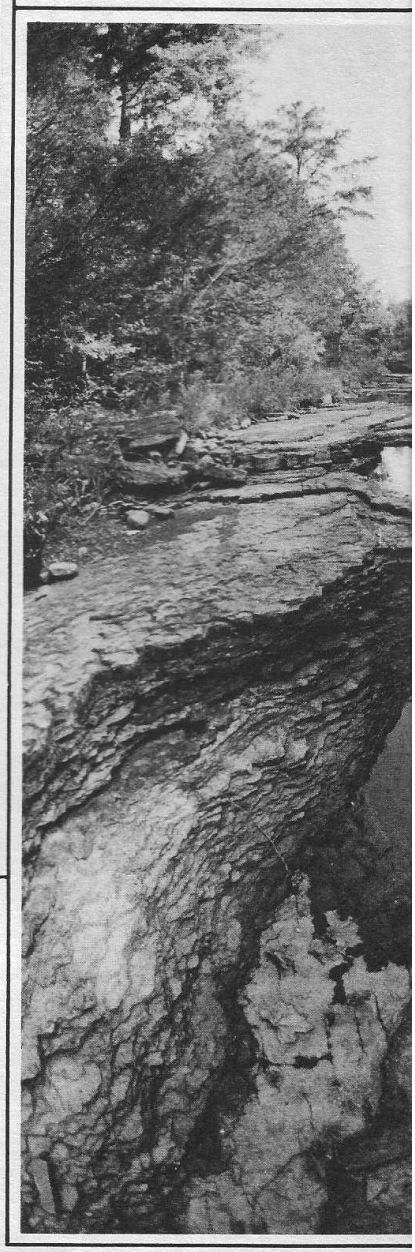
Snakeskin, Art Meripol



A rock outcrop below a gas field in Johnson County forms the mouth of the creek. Here, in late summer, the water seeps slowly from the rocks, where it begins the 1,500-foot drop that will take it, in 18 miles, to its confluence with the Arkansas River.



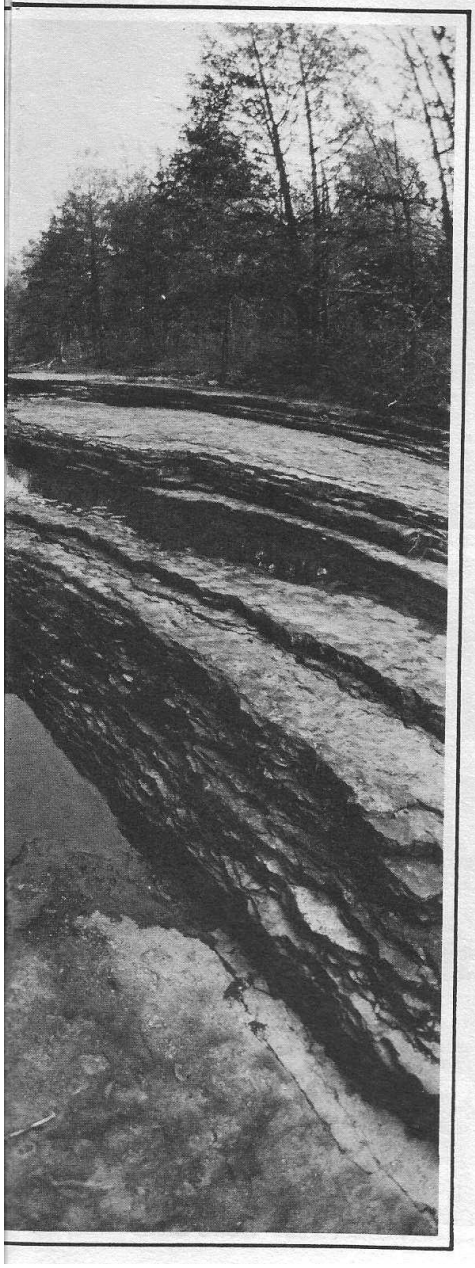


A rock creekbed isn't the only thing carved by the waters.

YOU NEED EACH OTHER

By Carol Griffee

Water-carved rocks hold small pools late in the summer.



Pssst! Ozark Society! Your slip is showing.

In fact, it's down around your knees, and around those of the conservation cause in Arkansas. Won't you *please* pull it up before it falls to the ankles where, instead of just hobbling progress, it could throw you and the cause flat on your faces?

What the h - - - ?

Ah, hah! Just the reaction I wanted. Now that I have your attention, some background appears in order.

I returned to Arkansas in December 1972 after an 18-year absence; most of that time was spent as a journalist in the Washington, D. C., area. As part of covering the total mosaic of life in Washington's Virginia suburbs, I reported on The Nature Conservancy's successful preservation of Mason Neck, helped lead the battle to save the Occoquan Reservoir watershed (Northern Virginia's Beaver Lake) from premature development, and wrote about the Don Quixotes who tilted against the building of Interstate 66 through auto-choked Arlington County.

In spite of the fact that I already knew what BOD_5 and eutrophication and a bunch of other 25-cent terms meant, I had no intentions of becoming an "environmental reporter" in Arkansas, largely because the polarization that had occurred in Virginia on conservation issues was one of the many things that had sickened me into fleeing my native habitat to relocate in Arkansas. Fate and the *Gazette* had a different destiny in mind, however.

Therefore, it was only a matter of days after arriving in Little Rock that I heard about this marvelous conservation organization called The Ozark Society, which had waged the war that gave the country its first national river — the Buffalo. I was eager to see the Ozark Society in action, but someone else was leading the charge on the Cache River, which was the great conservation crusade of the moment.

In the ensuing years, The Ozark Society has won what I consider to be only one other major victory in Arkansas — gaining a public right of way on the waters of the Mulberry River. And this was a sleeper, involving primarily the skills of lawyers or, to be more specific, those of Bay Fitzhugh of Augusta.

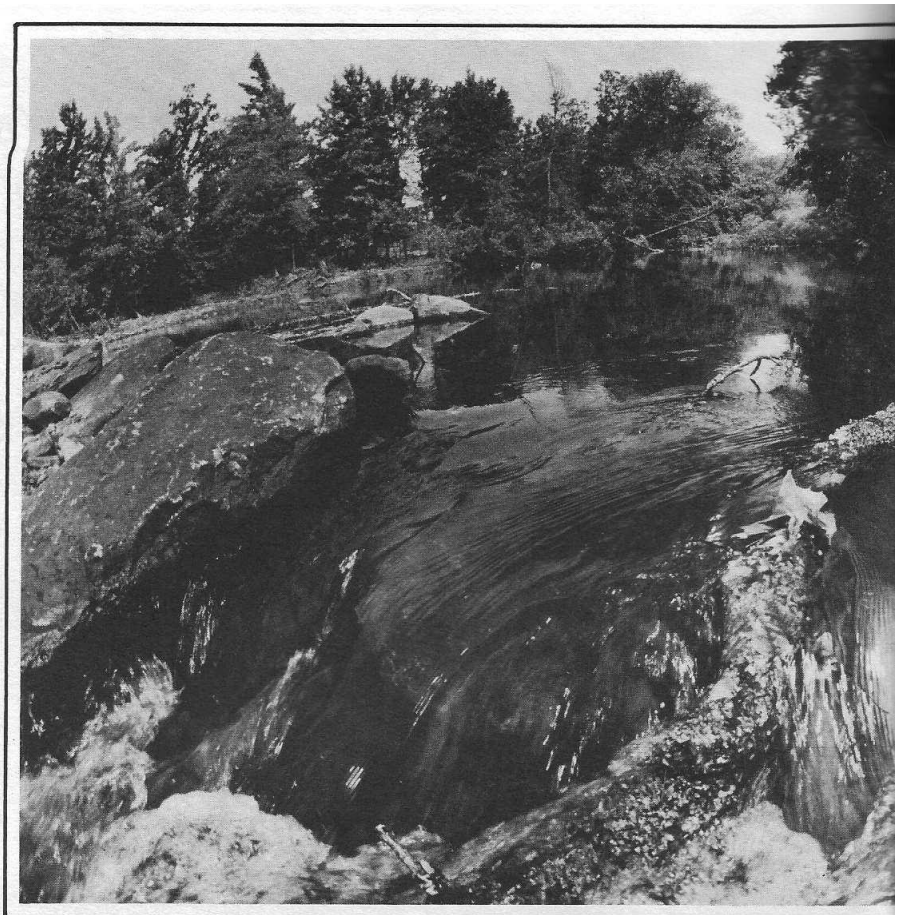
To one degree or another, my job has kept me in contact with the Pollution Control and Ecology Commission and Department, the Soil and Water Conservation Commission, the Game and Fish Commission, the Natural Heritage Commission, the old Stream Preservation Committee and its successor, the Natural and Scenic Rivers Commission, the Natural Resources Committee and the Water Code Study Commission, among other state agencies; the Environmental Protection Agency, the U. S. Fish and Wildlife Service and the Army Engineers on the federal level, the private groups that make up the Arkansas Conservation Coalition, and the Arkansas Federation of Water and Air Users. Public hearings and meetings on environmental subjects ranging from Wilderness Areas to proposed hazardous waste landfills have taken me to every corner of the state and numerous points in between. I am aware that The Ozark Society is active in Missouri, Oklahoma and Louisiana, but my experience during the last 10 years have been solely in Arkansas; thus my perspective is limited to this state.

Through all of this, I have yet to see The Ozark Society "in action," though it has helped on numerous projects, just as it is pulling in tandem now with the Sierra Club on Wilderness Areas.

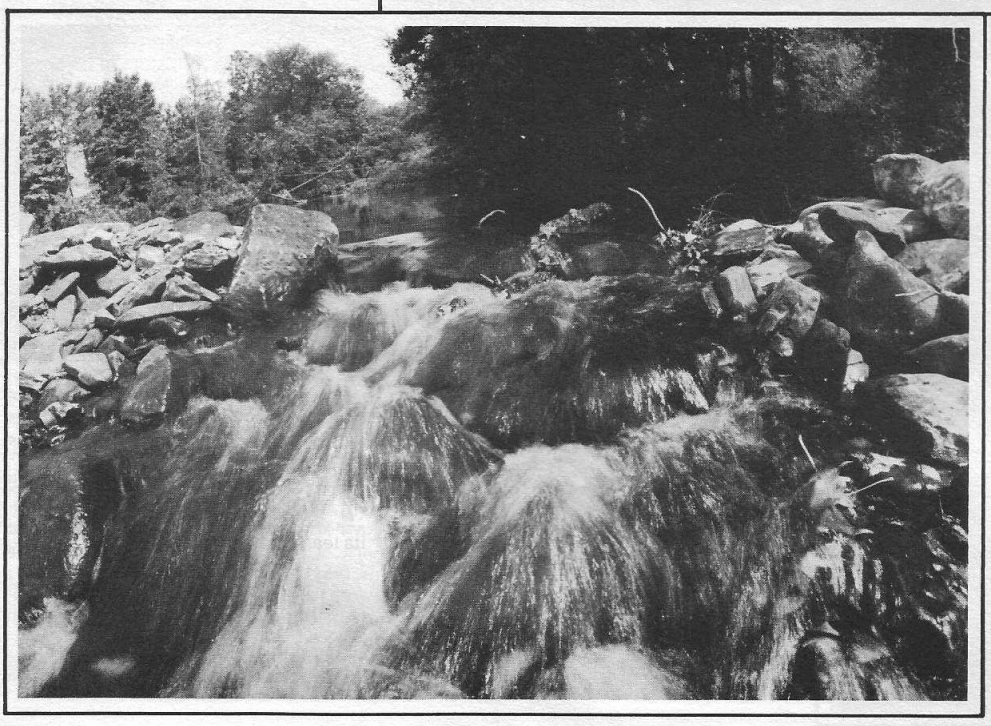
No one ever will deprive The Ozark Society of the two big stars in its crown — the Buffalo and the Mulberry. But my exposure to these endless meetings and hearings has led to a growing, uneasy awareness that these stars are being tarnished. Instead of being the catalysts for other conservation achievements in Arkansas, they are becoming albatrosses!

Has not the Buffalo been an impediment in the current effort to mobilize support for Congress to designate 11 additional Wilderness Areas in Arkansas' national forests? If not, why did the Coalition's leaders go to so much trouble to redraw the boundaries of these areas to exclude as many inholdings as possible, thereby reducing resistance and controversy?

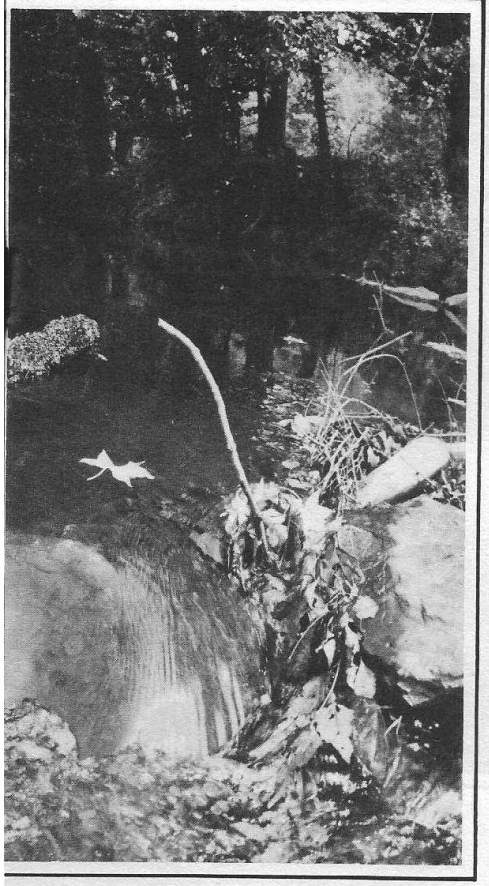
Why was Stephen Winters deluged with telephone calls from fearful landowners after an accurate newspaper article reported that he had received a survey in which some Arkansas rivers were found worthy by the federal government of more study as possible candi-



Wolf's Glen Rapids, below a former Boy Scout camp.



Rounded rocks at Wolf's Glen.



dates for inclusion in the national Wild and Scenic Rivers system? The deluge was so overwhelming, in fact, that Winters felt compelled to call a press conference at which he tried to put as much distance as he could between his Natural and Scenic Rivers Commission and the Wild and Scenic Rivers system.

The recent uprising in the Grand Prairie against the proposed water code bill got virtually all of the media's attention, obscuring the fact that many in the hills were skeptical of it, too. Why? Because they didn't understand what relationship the code had, if any, to what had happened on the Mulberry. Did not House Bill 60 say that the state was claiming for management purposes all surplus surface waters in Arkansas, exclusive of private, off-stream impoundments? It did, and all they could see was the impending prospect of "state control." They were blinded by the Mulberry to the role the permit system was to play in protecting their existing riparian rights. So, while the Grand Prairie roared, hill folks whispered about the Mulberry. Together they doomed the work of 22* men who had debated every possible facet of water rights and, in the end, had put aside special interests in favor of the state's long-term good in virtually every instance.

What these examples demonstrate to me is that stewardship does not end when government control begins and that, like freedom, victories don't stay won without eternal vigilance.

As a matter of fact, it could be argued that The Ozark Society has an even greater obligation to monitor the government's management of these resources because it was the organization that put them into the public's hands!

As an outsider (I make it a point not to be a member of any organization that I cover or reasonably could be expected to cover), I feel that I'm in a position to tell you what The Ozark Society's image (as opposed to what may be reality) is becoming. Put in blunt, insulting terms, The Ozark Society is gaining an image as a selfish, inward-looking clique that focuses its collective energy of planning and looking forward to its next outing — an exclusive social club enjoying the fruits of past victories. This image was strengthened during last year's debate on state water quality standards. Right or wrong, some conservationists got the impression that Ozark Society members didn't give a hang about the streams that blue-collar workers and "good ole boys" use for fishing, so long as their float streams were protected from degradation. And, boy, did they resent it!

Perhaps The Ozark Society has decided that Arkansas has no more conservation causes worthy of its attention, and it now is what it wants to be — primarily a social club. If this is the case, I am among those who would be grateful if the Society would announce this formally so that I can stop expecting more from the organization than it is willing to give.

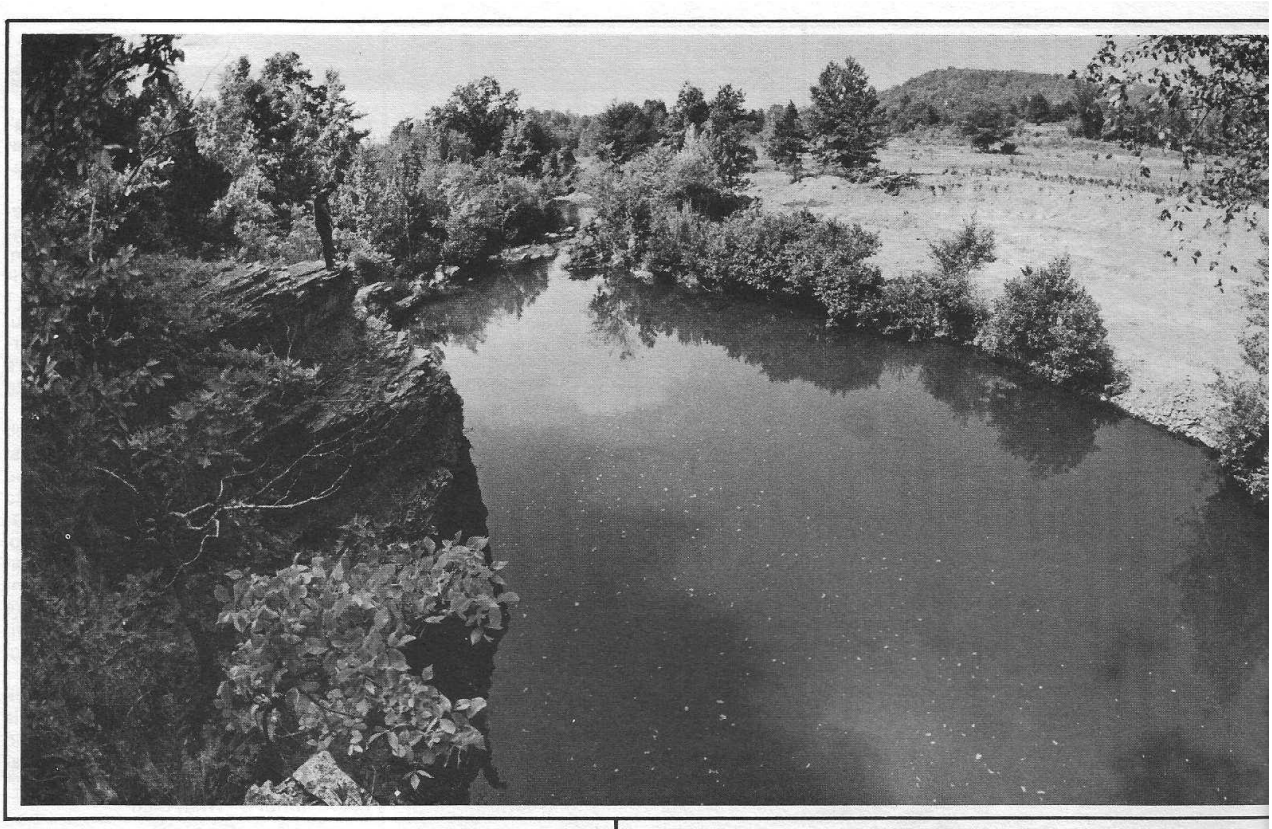
Even if The Ozark Society makes such an announcement, I still would suggest that it owes Arkansas one more deed —an intensive campaign designed to mitigate the abuse of the state's recreational resources, especially the Buffalo, and to improve the ethics of outdoorsmen in general but especially their conduct on streamside property. If this were to occur, perhaps it wouldn't be so difficult for others who are striving to protect Arkansas' natural resources.

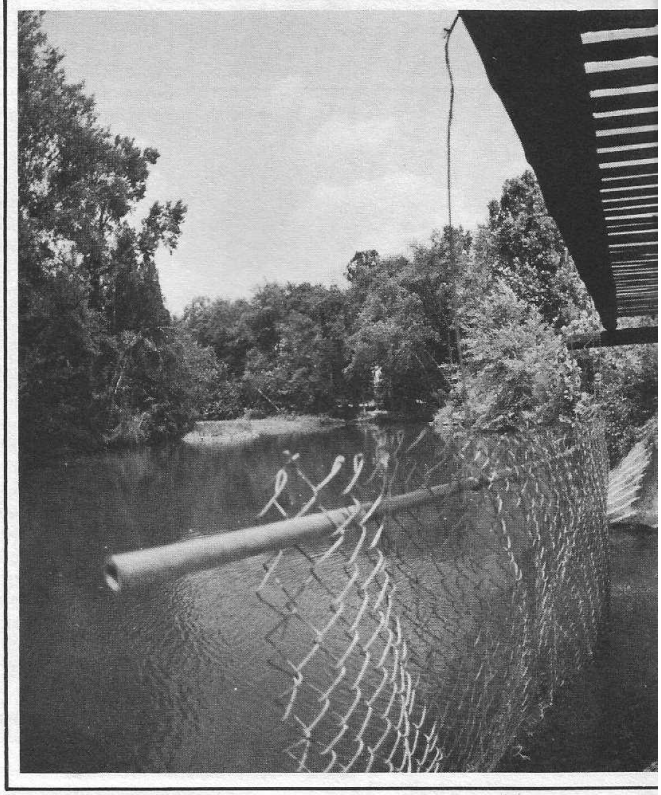
On the other hand, what if The Ozark Society says that its evolving image is not correct or, if it is, that it wants to become again the foremost conservation organization that it was when I first heard about it? What then?

★★★

There are numerous conservation issues, but the "point man" position has been pre-empted by other groups on many of them. Possibly because of the publicity the national organization has reaped, the Sierra Club is seen by the public as "point man" on the Wilderness issue, though Ozark Society members are playing key roles in Arkansas, as has been noted. The Wildlife Federation is filling the void that existed on water quality issues, though the politics at work may prove to be more than even this large group can handle. Dr. Rex Hancock's Save the Cache Committee is gearing up for another round, precipitated by the arrival of the Fish and Wildlife Service's draft environmental impact study for a waterfowl refuge. The Audubon Society is in the forefront on non-game species. The League of Women Voters is the authority on clean air legislation. The newly-organized Friends of the Earth chapter appears ready to tackle the toxic waste problem, though its leaders need to do more homework if they expect to be credible.

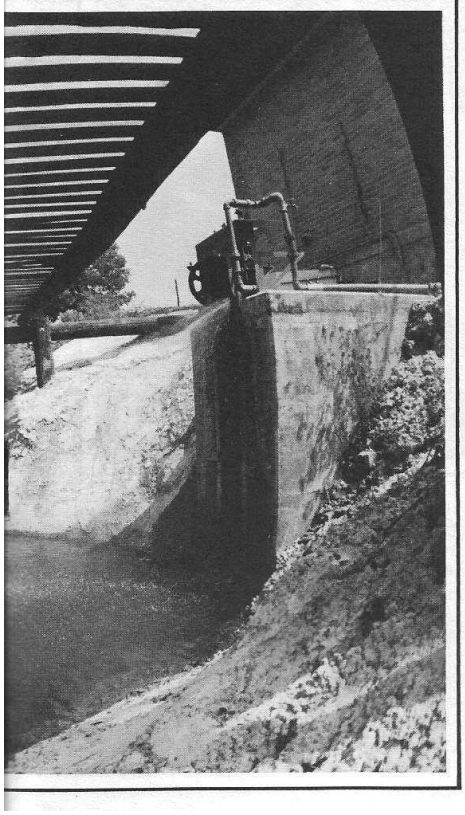
Given the fact that I'm talking about





A clock above and a fence in front, city pumps at Clarksville suck creek water into the back of a filtration plant, where it becomes the city's water supply.

Field, pool and bluffs — a familiar Ozarks configuration.



The Ozark Society leading rather than just participating on various causes (though that's not to be sneered at), what does this leave?

As they say about Arkansas, it's "a natural."

★★★

During the 1983 legislative session, I covered the House and Senate conference committee meeting on the appropriation bill for the Natural and Scenic Rivers Commission, and can tell you that there's no Arkansas agency in more trouble than this one. That it continues to exist at all is because of the eloquent persuasiveness of Senators Knox Nelson of Pine Bluff and W. D. (Bill) Moore of El Dorado and to the ability of Representative Ernest Cunningham of Helena to fashion compromises. You know, of course, that those attacking the Commission are from Buffalo River country — Representative Jim Smithson of Marshall and Senator Vada Sheid of Mountain Home.

The Commission is going to have to fish or cut bait during the 1984-85 biennium, and it's going to have to do it with enabling legislation that virtually everyone recognizes is unworkable — impossible.

Ironically, I had a draft of this essay sitting in front of me the night of June 6 when The Ozark Society's Alice Andrews, vice chairman of the Commission, came to talk with the Coalition about the agency. It was reassuring to hear Alice confirm many of the things I already had written about the Commission. Andrews reminded the Coalition that, "Arkansans do not want anyone messing with their land along rivers." Therefore, she said, the way to keep Arkansas' free-flowing streams free flowing is to "point out alternatives to dams." And I say to this that *how* you go about preserving Arkansas' natural and scenic rivers is the second challenging step. Step one — a step that really hasn't been taken yet — is a dedicated commitment to the cause based on an enlightened analysis of precisely which streams must be preserved because they deserve it.

Jeanne Jackson, the League of Women Voters' representative to the Coalition, later made some remarks to the group that I had deleted from the first draft of the essay but that are being reinstated in an effort to emphasize hers.

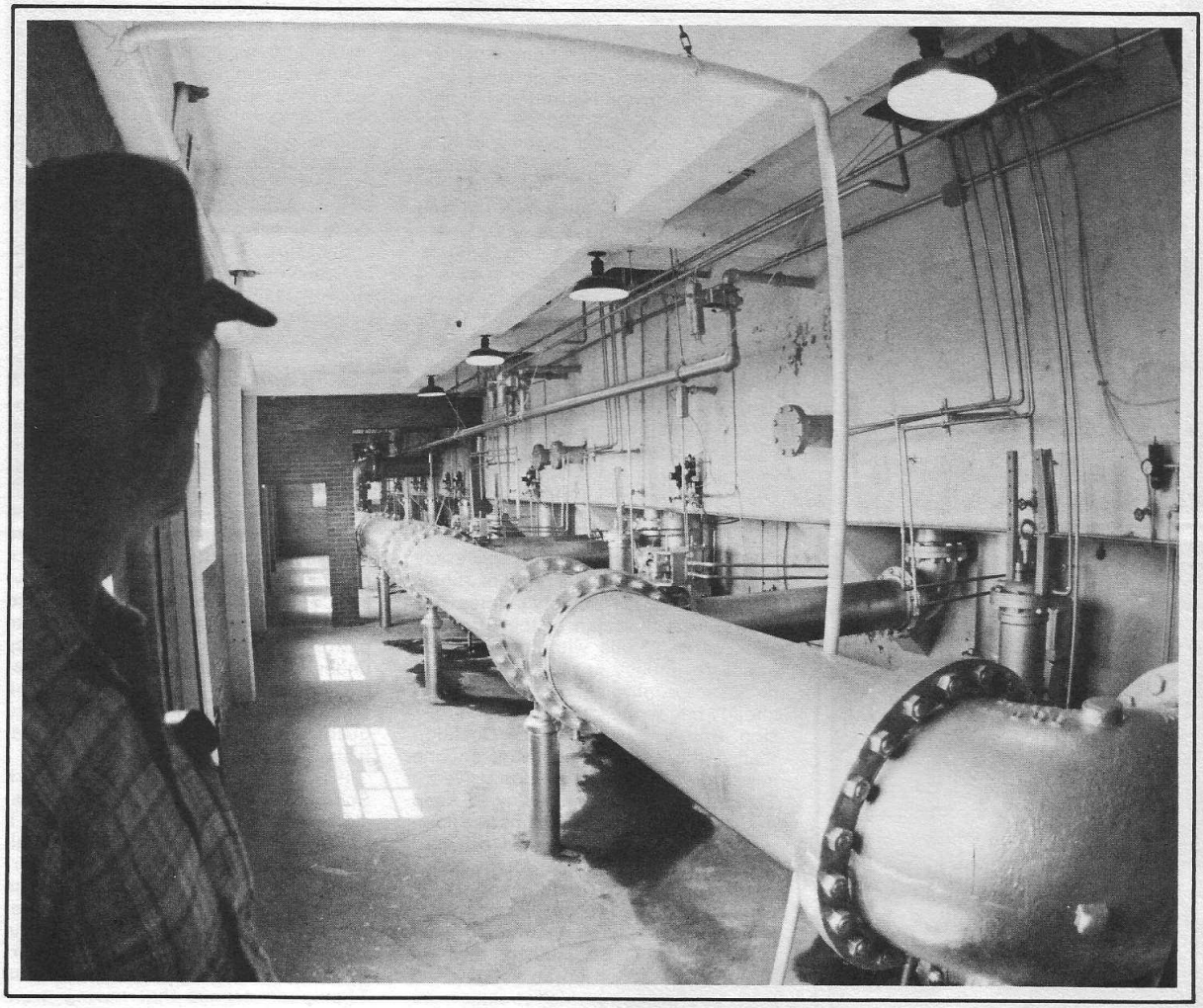
It has always been easier to galvanize people into action when they can see a clear and imminent danger to their interests — a dam, a channelization project, or a farmer who threatens canoeists and tries to block their access to a river. So where are the threats to Arkansas' remaining free-flowing streams? Well, let's see: Fort Smith plans a dam on lower Lee Creek while the Army Engineers hold their Pine Mountain dam on the same creek in reserve, and Russellville has an application before the Soil and Water Conservation Commission for funds to help build a water supply dam on the Illinois Bayou. With no money in the fiscal year 1984 federal budget for the comprehensive Arkansas River study, Russellville may get impatient enough to find a way around this study, which is what's holding up this project now. And if the demographers I've been reading lately are correct, the already fast-growing Arkansas areas where so many of our best streams are located will be in the vanguard of the second wave of Sun Belt boom that is coming down the pike. Therefore, it's only a matter of time — perhaps just months — before those threats will be here as more and more cities find themselves hamstrung with inadequate water supplies.

If the best of Arkansas' remaining free-flowing streams are to be saved, the vehicle for doing it must be put in place NOW through a Natural and Scenic Rivers Commission that is what it ought to be. The Commission needs a private patron — one that will take the agency under its wing, help it draft a new legislative charter and lobby it through the state legislature with single-minded gusto, and then stick around to see that it stays on course and does the job.

It's my contention that The Ozark Society can and should be the Commission's patron saint. The creation of a natural and scenic rivers system through preservation easements (or whatever) would not only be a third star in The Society's crown, but it could help restore the luster that the Buffalo and the Mulberry are losing, in part from overuse. After all, the Sierra Club's Lissa Thompson argues that having more Wilderness Areas takes the pressure off the one or two that already exist.

Doesn't the same hold true for natural and scenic rivers?

*The Water Code Study Commission had 30 members, but only 22 consistently participated in meetings.



Plant engineer checks the main pipe, where Spadra's water now flows.

THE HYDROLOGY

By Neil Compton

On August 27, 1983, Dr. Neil Compton presented a report, which he titled "Man's Impact on the Ozarks," to the Arkansas Wildlife Federation. In a few words, he summed up the history of the region from primordial times to the present, with emphasis on the very recent past and "man's impact." In the report, he covered five main topics: The Zoological Resource; The Vegetative Cover; The Atmosphere; The Topography; and the part reprinted here . . .

Few parts of the world were blessed with better river systems than were the Ozarks. Coursing across a terrain underlaid with limestone and dolomite, they originally ran crystal clear due to the chemistry of such strata. Solution channels in that type of rock resulted in thousands of springs emerging in low places, some of them in southeast Missouri the largest in the world. Habits of the aborigines affected these waters not at all and the early Europeans used them for transportation and local water supply only. Major alterations in these waterways began modestly with the creation of Lake Taneycomo in 1919 in southern Missouri for the generation of electricity, and the building of Spavinaw Dam in eastern Oklahoma in 1920 for water supply for the city of Tulsa. Both of these were specific and understandable needs but more was to come. In 1931 and 1932 a truly gigantic reservoir was created on the Great Osage River in middle Missouri by the Bagnell Dam, again for hydro-power. In few years it was followed by the Disney Dam on the Grand River in eastern Oklahoma, also primarily for power. Then in 1938 Congress enacted the Flood Control act which opened the gates for political opportunists and their champions, the Corp of Army Engineers, to enter the big dam building field. The fate of every Ozark stream of any size was sealed. They were to be altered into fluctuating "multi-purpose" impoundments, their previous identity to be rendered unrecognizable. They were to be all things to all people. They would be used for flood control, hydro-power, city water supply, irrigation, recreation, transportation and (unavoidably) some of them for sewage disposal. It is obvious that the more purposes proposed for a thing the less reason there is for it. In medicine there were once homepathic schools that taught the idea that the more different kinds of medication that could be given a patient for a specific disease the better since one would perhaps hit the mark. The rest of the profession called that "shotgun medicine." It never did work.

The story of the damnation of the Ozark rivers is too long and too complicated to recite here but may it be said that some were saved by strenuous effort on the part of some of us after it was almost too late. The Current in Missouri and the Buffalo in Arkansas run free today because of their value as recreational streams. The Water Valley Dam on the Eleven Point in Arkansas was stopped not so much by conservationists as by a group of determined local farmers and business men.

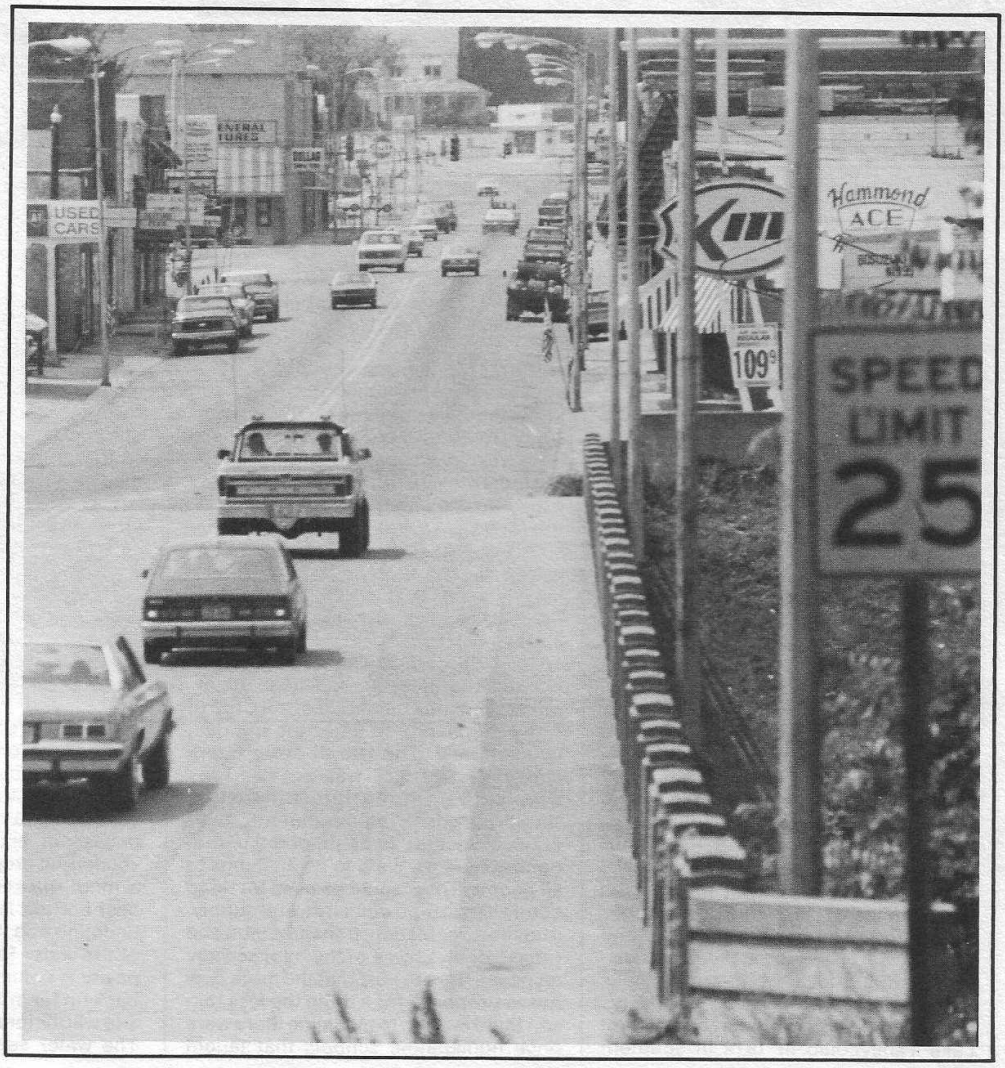
In the end these huge artificial reservoirs came to be used primarily for purposes not emphasized by their most vociferous proponents. Flood control is a moot question with so much of our best bottom land under permanent inundation and the necessity to hold most of the water for other purposes. Hydro power is coming to be more and more a back up for modern generating systems and will, before many years, be obsolete. The water supply faction faces night-

marish pollution problems. The recreation activity now transcends all others with the Corps of Engineers in the same ball game with the National Park Service. As for transportation, "the steamboats arn't acomin' " like they were supposed to and our seaway is going to be something else someday. The big and, for the most part, unforseen use which has come to these reservoirs is the real estate boom around their perimeters. Land values in sight of one have risen astronomically and urban communities have sprung up almost overnight on dry rocky hills and on the bluffs and in the ravines where once even the local moonshiners disdained to go. For the Ozark "land men" it has been a bonanza, and millions or even billions of dollars have been made. The future will undoubtedly generate further uses of this great water supply but in ways that we cannot now foresee.

A few remaining smaller streams, like the Mulberry and Big Piney in Arkansas and Big Sugar and the Gasconade in Missouri, escaped because the big dam building craze is now going out of political style.

The sum result of it all is that the map of the Ozarks is now dotted with serpentine drowned valleys of varying size. All have fluctuating shorelines varying from 30 to 80 vertical feet due mostly to the flood control factor. There has thus been no chance for a natural shoreline to be established. The drawdown creates a frequent disruption of human use and continuing disturbance of plant and animal communities at the water's edge. If a stable shoreline could be achieved they might at least someday merit the designation of lakes.

Other human use factors have heavily impacted the waters of the Ozarks but are not at once as visible as the reservoirs. Waste water pollution is probably the foremost. In the beginning all running water here was drinkable. Today none of it is without proper treatment. Having escaped the urbanization that spread across much of the rest of the nation, city sewage was not a big subject of controversy until the last two decades. Now an apparently insoluble dilemma confronts burgeoning urban areas such as Fayetteville concerning the matter of sewage disposal. Its waste is dumped into Beaver Reservoir with at least some form of treatment but there are numerous rapidly growing communities around Beaver and the others with only septic tank service. The untreated leakage from the tank's overflow goes directly into the nearest body of water. In agricultural areas even more pollutants wash off fields, pastures, hog lots, feed lots and turkey farms into the streams or lakes. Consequently, the waters of War Eagle, which once flowed crystal clear, now look like some kind of soup most of the time.



Barely aware of what runs beneath them, motorists pass over Spadra Creek on their way into Clarksville's central business district.

IT TAKES A KIND OF CRAZY

By Mel White

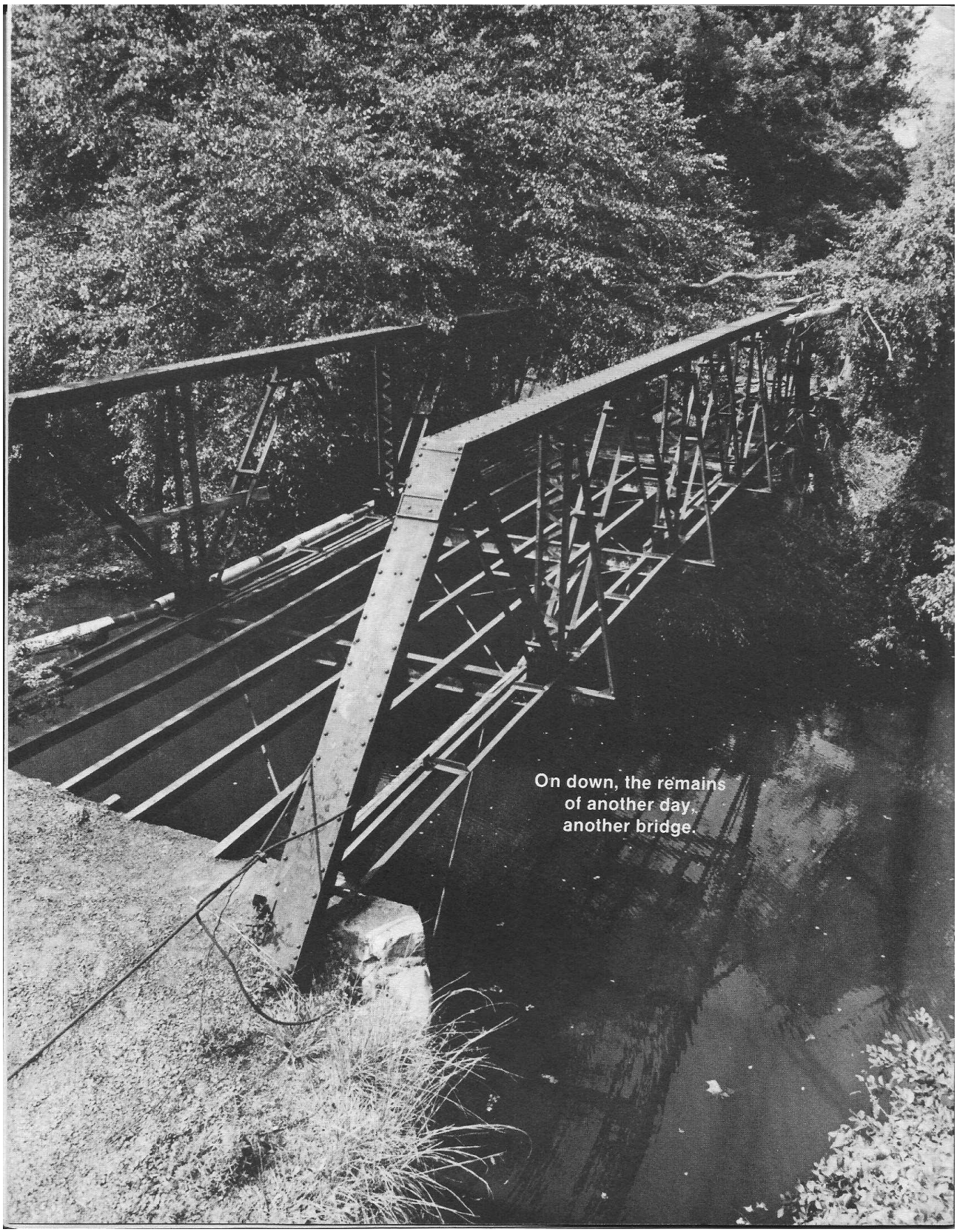
One Sunday morning in early June I arose at three o'clock, assembled various optical equipment and some rather complicated maps and charts, picked up an accomplice who lives nearby, and drove through the darkness to a spot just north of Augusta, Arkansas. There, at exactly thirty minutes before sunrise, I began an assigned observation procedure. For three minutes, I called out what I was seeing and hearing to my companion, who took careful notes. Then I drove a half-mile and repeated the process, continuing until we had made fifty stops over twenty-five miles. It was then approximately nine-thirty. We drove home. Later, I compiled the data and mailed the results in a large brown envelope to a collection center in Maryland.

Have I been recruited by the KGB to spy on rice and soybean production in northeast Arkansas? No. Do I have an unnatural interest in the waking hours of farmers? No. Am I crazy?

In truth, I was conducting a Breeding Bird Survey for the U. S. Fish and Wildlife Service. In other words, I was counting birds — both by number and species. About eighteen hundred such surveys are conducted each June across the United States and Canada. The mass of bird-population information resulting from all this volunteer effort is put on a computer by the service and is available to scientists. Over the years, long-term trends in the numbers of bird species can be used to determine, for instance, which species should be listed as endangered, and which should be placed on the "blue list," designating species that, while not officially endangered, should be watched because of an unusual population decline.

The usefulness of information from the BBS and from similar studies, such as the well-known Christmas Bird Count and the newer Breeding Bird Atlas project, is not confined to the bird world. As has often been pointed out, birds are an important "ecological litmus paper." Because birds are easily observed, and because many species are very sensitive to changes in their habitat, they can serve to warn us about the effects our activities are having on the environment.

To take an extreme, and *ex post facto*, example: It has been somewhere between twelve and thirty years (depending on whom you believe) since the last Ivory-billed Woodpecker was seen. Why? Because a very large expanse of old-growth southern hardwood swamp was required to support just a single pair of the birds — and you know what has happened to that particular resource. If we can impose modern techniques on frontier sensibilities for a moment, we can see how bird surveys showing the


On down, the remains
of another day,
another bridge.

precipitous decline of the Ivory-bill in the first half of this century would certainly have given warning about the loss of one of America's most productive habitats.

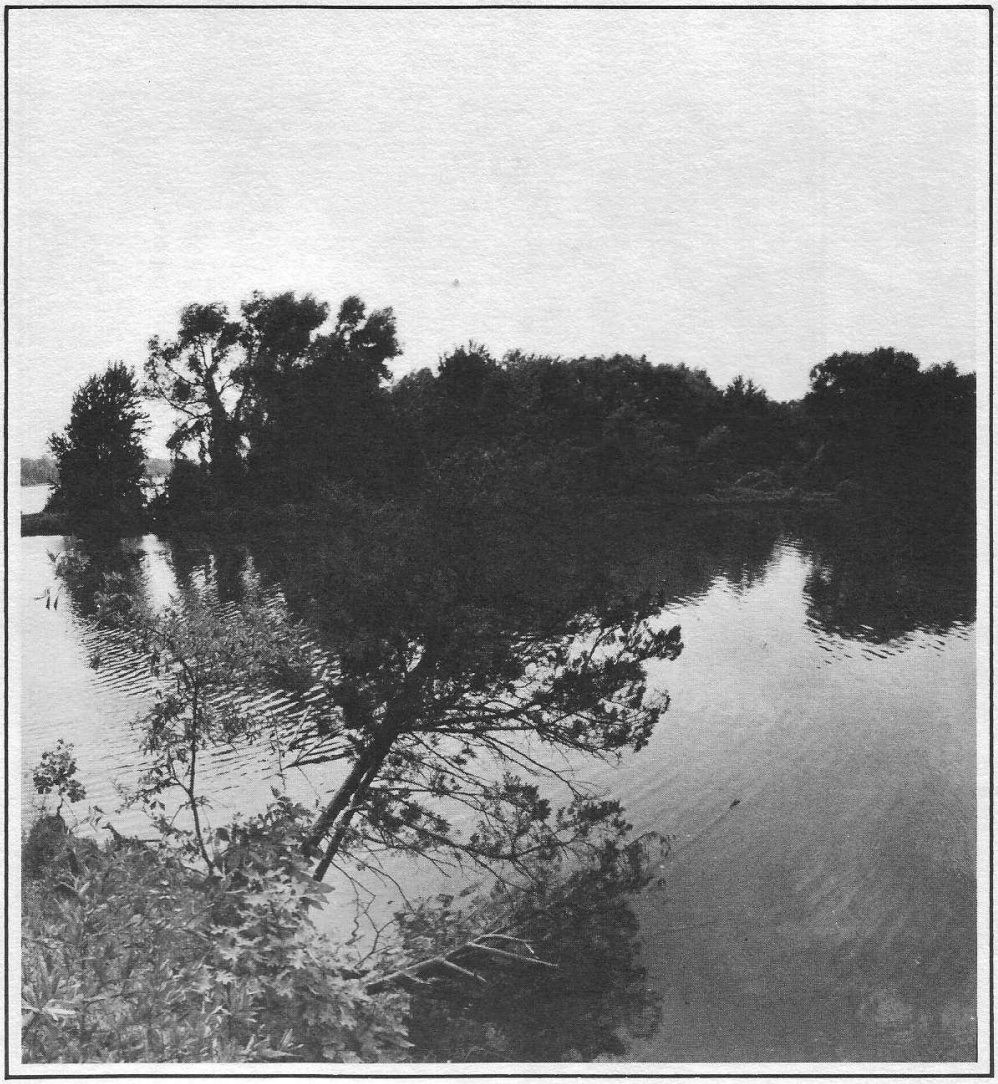
In a case that is not nearly so moot, scientists studying arboreal (tree-dwelling) birds like vireos and warblers have tentatively concluded that, if we are to maintain healthy populations of these birds, we need to preserve thousands of contiguous acres of eastern hardwood forest; scattered smaller areas, such as in city parks, may not provide enough habitat to do much good. If we lose these insect-eating birds, we must ask ourselves what else we will lose, and what the consequences will be. The answers could be good arguments for protecting large areas of existing remnants of the eastern forest, which once stretched from the Atlantic unbroken to the midwestern prairies.

My BBS route, even though it covers a relatively tiny area, reveals its own trends in bird populations, reflecting changing land use in the sixteen years since its inception. Red-winged Blackbirds, a species that likes to live near water, has gone from fewer than fifty a year to more than five hundred in that time. (Translation: There has been a tremendous increase in rice-growing in the area.) Numbers of Horned Larks gradually increased from three or four to nearly thirty and then dropped sharply. (Translation: Land was cleared to the bare ground for soybean production, which was fine with the larks; then winter wheat and rice changed the habitat again.)

The Loggerhead Shrike is a blue-listed species, and I had a small example of one reason for that on my route this year. I had in past years found only one shrike, at a spot where a woodland adjoined a pasture. This year the pasture had been plowed up for a row crop, and my shrike count for the route was zero.

It would be a mistake to attach too much significance to my missing shrike, or to anything that happens on one route for one year. After all, five hours annually isn't much of a data base. But when multiplied by nearly two thousand routes with records dating back over many years, a body of information is built up that can be very valuable in picturing what is happening to our surroundings.

Amateurs probably contribute more to the advancement of ornithology than any other branch of science, in organized activities like the Breeding Bird Survey and the Christmas Bird Count, as well as in the reporting of individual findings throughout the year. Birding is fun, and it's even more fun when it includes a feeling of participating in something worthwhile. Maybe that's why there are so many of us willing — once or twice a year, at least — to get up at three o'clock in the morning to go out and count birds.



Here, in a backwash of Lake Dardanelle, Spadra Creek, on the far right, combines with the lake and the Arkansas River on the left, to end both its journey and identity.

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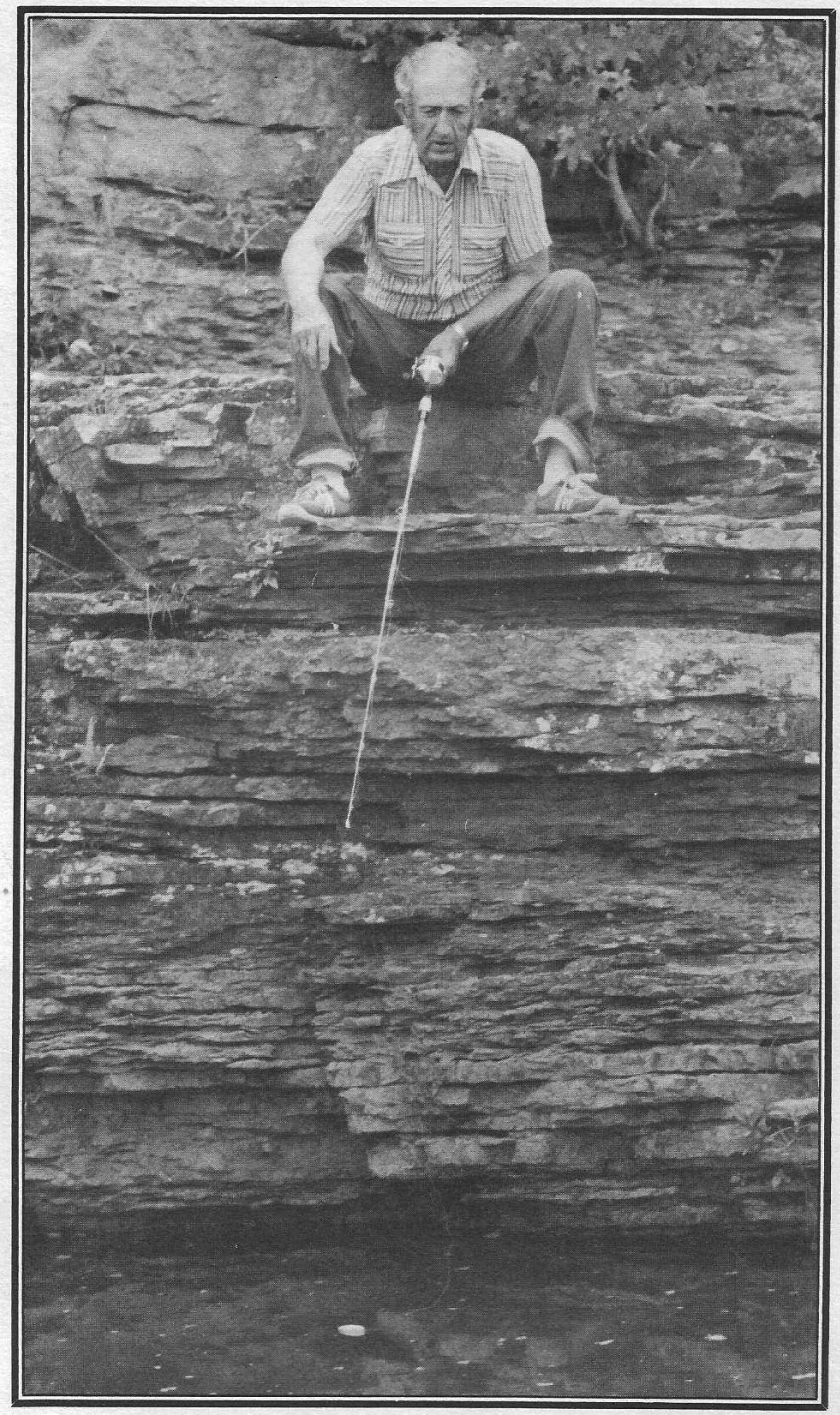

M. J. Teague does some mid-day sunfishing on Spadra Creek.

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