

# Ozark Society



## BULLETIN

**Autumn  
1980**

**Beech** under rim  
of Beech Hurricane —  
Neil Compton

## OZARK SOCIETY BULLETIN

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## The Latest on Alaska

On November 12, the House of Representatives adopted the Senate version of the H.R. 39 Alaska bill. Representative Udall of Arizona pushed for the passage of this bill as conservationists decided to settle for what they could get this year. If efforts had been made to strengthen the Senate Bill as had been planned, it would have killed the bill for this year. That would have left little hope for a better compromise in next years session with the new administration and a Senate apposed to the restrictions conservationists want on the use of Alaska's lands.

President Carter signed the bill as we go to press.

## The Mulberry Belongs to Arkansas

*The news service announced that on Monday, October 6, the United States Supreme Court left intact an Arkansas Supreme Court ruling that the public owns the Mulberry River.*

*Editorial in the Arkansas Gazette, October 8:*

The United States Supreme Court has upheld a ruling made earlier this year by the Arkansas Supreme Court that the Mulberry River of the Ozarks is a navigable stream and may be used for recreational purposes. It is a decision that surely will be welcomed not only in Arkansas but also in other states where similar issues have been raised.

The Mulberry has been used for many years by the public for swimming, fishing and canoeing and it has been stocked with fish by a public agency, the state Game and Fish Commission. Its 50-mile course through Franklin and Johnson Counties has many public roads and public access points, including those on National Forest land. At certain points, however, it flows through privately held land. One of these landowners filed suit in Chancery court early last year contending, among other things, that since the Mulberry was not a navigable stream holders of land on both sides could prohibit canoeists and others from using the stream. The lawsuit actually was an outgrowth of landowner dissatisfaction with what they said was the conduct of some canoeists while on land adjacent to the river.

As the issues made their way through the courts, the final question boiled down to a determination of navigability. The old rule in the state courts, sometimes called the "steamboat rule", was that a stream had to be capable of carrying commercial goods in order for it to be considered navigable and therefore open to public use. In its decision earlier this year, the state Supreme Court broadened the definition to say: "There is no doubt that the segment of the Mulberry River that is involved in this lawsuit can be used for a substantial portion of the year for recreational purposes. Consequently, we hold that it is navigable at that place with all the incidental rights of that determination."

While it is good news, we think, that the United States Supreme Court has settled the question and that canoeists and others will be able to use the stream, it should be noted that the ruling does not give license to those who would abuse the access by trespassing on privately owned lands adjacent to the stream. These lands are still protected as the private property of the owners who can prohibit trespass if they wish by using existing laws.

Arkansas is blessed with waterways suitable for recreational use by the public, although some of the best streams remain the target of those interests who would destroy them by damming. Now at least the state will not have to contend with others who, for reasons of their own, would place these streams off limits on the ground that they are not large enough to accommodate a cargo-carrying steamboat.

## ALASKA LAND DEBATE Observations & Exercises

Bill Coleman, Conservation Chairman

In my mostly drab and businesslike office, about chest-high on top of an industry-grey bookcase, stands a little carving in white stone. It is a Russian Brown Bear, *Ursus arctus*, in a life-like pose, prowling and snuffling about imaginary slopes of the Urals or rocky flanks of the Steppes. Carved in alabaster, the beast has been given that careless, intelligent bear-character that tells me its maker had spent some time studying bear-details before setting hand to stone. Created ten thousand miles away — on the other side of the world, really — the carving communicates a certain sentimentality for this creature from the still-rugged Russian land. I imagine that there may be an element of the Western conservation movement in this carving, some representation of an ethic or expression of important natural values that I might recognize. Surely the artist must know that *Ursus arctus* of the Urals is struggling for its own survival, and I wonder how this person acquired a knowledge of vanishing wilderness or came to understand that the Brown Bear may one day prowl the Steppes in a desperate search for habitat or companionship in order to avoid easy extinction. And, oddly enough, all of this reminds me of Alaska.

One of the cousins of the Russian Brown is the Alaskan Brown or Kodiak Bear, *Ursus middendorf*, whose range extends from nearby Siberia, across the Bering Sea and along the Aleutian chain into the narrow, twisting corners of the North American coastal ranges. The country is rugged, tough, located literally at the top of the world. Glaciers and jagged mountains are here, as well as frigid winters contrasted with brief eruptions of summer. The climate and topography of this region have set it apart from the rest of the globe, for nowhere else on earth do the tundra and tiaga and Sitkan needle-leaf forest share space with snowbound 20,000 foot peaks, with trembling volcanoes and fluid, moody glaciers. Here the thawing rivers flow unchecked, unfettered, and the ancient peaks rise intact and austere. Here the most complex array of North American wildlife still in existence lies concentrated beyond the reach of human exploitation and massive endeavor. Here the Alaskan Brown, the Grizzly and the Polar bear are, each within their own domain, the masters of all they survey. This is Alaska the American child, Alaska the powerful and mysterious. This is the site of humanity's most conscientious and heartfelt conservation struggle, a ten-year engagement between preservationists interested in setting aside one third of this territory for purposes of national parks, wildlife refuges, wilderness, and wild, scenic streams, and developers who see timber and minerals and oil and natural gas in every overturned stone and struggling leaf. But now a final "treaty" awaits action of the American decision-makers, spelling an end to this lengthy resource debate, and setting the stage for the creation of a resolute, permanent conservation ethic in this outcast arctic realm.

The debate over designation and use of public lands in Alaska has rained a storm of informed, solid, preservationist philosophy over the nation as a whole, and has been reflected time and time again in overwhelming demonstrations of pro-conservation strength in the halls of Congress. During the debate, the best of Washington's imperturbable fortresses took a simple drubbing: met face to face in both the House and Senate, big business, big energy, and big government fell before the better organized and better educated ranks of the Alaska Coalition. The Coalition proved adept at either head-on confrontation or elusive, closet strategy. Facts served instead of cudgels in this contest, and the thick skins of youth and dedication served when no other armour was at hand. Fifty-five national and regional public interest groups have discarded their individual ideologies and, like the ancient, independent Greek states closing ranks against King Xerxes, have taken advantage of every opportunity to wrestle the larger giants to the turf. Because of prior professional, political, or rhetorical boundaries, nothing similar had ever been attempted before; had even been thought possible. But the Alaskan wilderness is a precious jewel whose present and future worth cannot be estimated, and no other national conservation issue will go unaffected because of the present success of this mighty combined effort.

Debate by the Senate over the conservation-oriented Tsongas-Roth Substitute bill was the most crucial aspect of a years-long struggle for preservation of Alaska lands. Prior to the Tsongas-Roth, the Senate Energy and Natural Resources Committee had reported their version of a lands bill to the main Senate body, and conservation groups were aghast at the sacrifices that had been made to the timber, mining, hunting, and oil and gas lobbies. A major campaign was mounted to turn the tide in favor of the existing House version, H.R. 39, developed earlier by Congressman Udall, Anderson, and others. Even after Senator Paul Tsongas of Massachusetts had submitted a substitute to the Energy Committee bill, efforts were underway by the Alaska Coalition to more directly mold Senate action in the image of a strongly conservationist H.R. 39. After a month of Senate consideration, compromise, and delay, final passage of the Tsongas-Jackson substitute, the last of a line of compromise bills worked out in closed-door negotiations, was secured. The Tsongas-Jackson passed overwhelmingly by a 78-14 margin in the Senate on August 22 of this year.

One does not "directly mold" many Senate activities, I have learned. One can set about to negotiate with this august body, but the outcome is never assured. The Alaska Coalition idea of "negotiate," however, is much the same as the Spartan King Leonidas' idea of settling disputes with the Persians at Thermopylae. H.R. 39 is the Coalition's Spartan model against which there simply is no room for compromise. The Senate debate over this issue was



dogged, unclean-fouled, even, by the frustrated wrath of the Alaskan delegation. Test votes went miserably to the discredit of Senator Henry Jackson of Washington and a filibuster by Alaskan Senator Gravel was promptly and easily canned by a collective vote of cloture. Senatorial aides complained that they had never seen so much public input on a single issue before. Never. The United States Senate has been overwhelmed by pro-conservation, public input.

Of course, the Coalition did not play exactly according to the old rules. Armed with walkie-talkies in the halls of the Senate, adorned with electronic beepers linked to a HQ telecommunications center, loaded with facts and figures about Alaska, personal biographies of the key Men on the Hill, maps of the Senate offices and of the Capitol Building itself, and aided by the hired-guns of the local and regional conservation mercenaries, the Washington Coalition staffers came ready to play hardball. It was not a typical conservation battle.

I remember Alaskan Senator Ted Stevens' expression the morning of the first debates, when he accidentally wandered into the Coalition planning room in the Capital Building. Before his entrance, dozens of suit-and-tie conservationists were gathered in little groups, planning, plotting floor strategy. From out of nowhere, Stevens burst into the room with a mumble and yak, and everyone in the room looked up or turned to see him in the same motion. Everyone was startled; there was no sound except the tablefans buzzing. Thirty jaws all agape. Well, the suits and dresses weren't enough, as it turned out (we hadn't even **thought** about shaving our beards!) and Stevens made the connection. He had stumbled into the middle of the enemy camp. At this his eyes grew wide as Anthony dollars, he threw up his arms in surrender, gave us the old "Oh my God," and turned and fled through the door. Without a doubt some friendly Senator had somehow given him the wrong directions. A few smiles and lots of relieved sighs, and we chattered on about the day's events.

The Ozark Society has served as a member of the Alaska Coalition since its inception, and has assisted in coordinating grassroots support for the Alaska lands bill in its four-state region. Along with other members of the loosely-organized Arkansas Conservation Coalition, the Arkansas chapters of the Society have managed to secure the support of most of the state's Congressional delegates. Chapters in Louisiana, Oklahoma, and Missouri have also played important roles in this region. During the vote on the Tsongas-Jackson substitute, all eight Senators from the four states cast their votes correctly; they all deserve a hearty thank-you from their constituents. But the "treaty" is still not signed and delivered. There is, despite the success in both houses of Congress, the need for a compromise bill linking House and Senate action on the Alaskan lands question. Congressmen Udall and Evans have recently introduced a package of strengthening amendments to the Tsongas-Jackson Senate bill.

This is H.R. 8311, and will undoubtedly receive House support. It will be up to the Senate again to consider the merits of these strengthening measures; up to us once again to make our opinions known. President Carter has pledged continued support for a strong Alaska package, and final action on this issue must come this year. The Administration has been of great assistance in securing the current legislative package, and should provide additional support at least until the beginning of 1981. But we are too close to completing the puzzle, too near the end of this lengthy debate. We must finish the task during this Congressional term or risk starting from square one again in 1981, when new defenses can be thrown up against another pro-Alaska conservation package.

In a letter to Senator David Pryor of Arkansas, The Ozark Society attempted to convey its sincere interest in a strong Alaskan lands bill. Dated July 22, 1980, the letter reads:

"If the 12,000 members of the Arkansas Environmental Coalition could each arrange to meet with you personally, they would speak with one voice to the need for strong conservation policies in Alaska. They would encourage you to work in their behalf to secure these lands for the benefit of generations to come. Discussions and compromise are worthy objectives which we know you pursue each day, but where Alaska is concerned, additional trade-offs cannot be imagined. Put simply, there are no more Alaskas. The natural heritage that we strive to protect has no equal and is the last opportunity for such preservation left to us on this globe. Please work where you can to encourage the full Senate towards a similar awareness. Your assistance will always be remembered by those of us in Arkansas who appeal to you now."

It is hoped that this appeal, and Senator Pryor's assistance, will carry over into the extended Congressional session beginning November 12, and work towards a successful and final resolution of this national issue.

Maybe one of these days, while flying over the Denali National Park, or hiking into the Tojiak National Wildlife Refuge, I'll think back over the entire, exhaustive Coalition effort. Maybe I'll see firsthand the Kodiak cousin of *U. arctus* of the Urals, and remember that a Russian sculptor once impressed me with an empathy for his bear, and, indirectly, for its wild home and free, lumbering grace. I'll wonder if the artist will ever see the relationship between habitat preservation in his land and similar efforts in other parts of the world, and whether Alaskan wilderness will come to have a meaning at all in the larger, world view. These things will run through my mind, but there will be a deep satisfaction in actually witnessing, firsthand, the Alaskan backdrop — the splendor, the engaging reality of wilderness apart from the purposes of mankind; an area vast enough to discover the secrets of rock and wood and the creatures that make these their home.



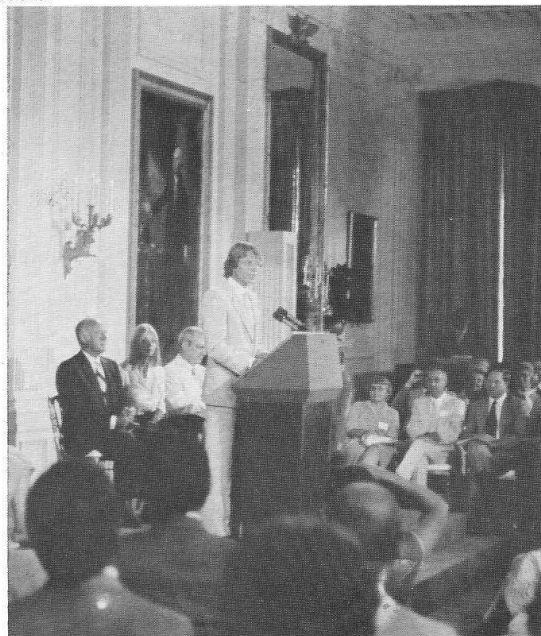


**President Carter** addresses Alaska Lobby, East Room of the White House. Ozark Society representatives were invited to attend a reception July 21, 1980, in the White House for Alaska lobbyists. Tom McRae and Bill Coleman attended. Mrs. Olaus Marie, wife of the noted conservationist, is seated behind the president. Standing are the sculptor, Gary Herbert, right, and Tom Crum, left, Director of the Windstar Foundation. The wonderful sculpture of a bear is in front of Mr. Herbert and was presented by Mrs. Murie to President Carter to commemorate his work on Alaska lands preservation. — Bill Coleman

**Cecil Andrus**, Secretary of the Interior, addresses members of the Alaska Coalition, Americans for Alaska, and pro-Alaska Congressman. — Bill Coleman



**John Denver**, singer and song writer, addresses the lobby. John is founder of the Windstar Foundation as a nonprofit education and conservation group. — Bill Coleman



## Use of Acorns by Prehistoric Inhabitants of the Ozarks

Jerry Hilliard

\*Paper presented to the Highlands Chapter, Ozark Society, October 8, 1980.

I hope to demonstrate how archeological studies can lead to an understanding of past human behavior by looking at one small fragment of a cultural system, that is, the system of food selection, procurement, and processing of acorns. Before jumping into a discussion of acorns and how they are used as food, I think it is important to understand the significance of the Ozarks region as an archeological study unit. Few places in North America exist where natural preservation of prehistoric materials has been so complete. The importance of preservation in the dry bluff shelters and caves is best summarized by Mark Harrington (1960:1), one of the pioneers, along with S. C. Dellinger, of Ozarks archeology.

"In most parts of North America the archeologist finds himself at great disadvantage when he attempts to reconstruct, in the absence of written records, the culture of a vanished people. Their language, their social and political systems, their religion, their heritage of song and story are completely lost. Only from material artifacts, the implements, the clothing, the weapons they used, can the investigator hope to gain some knowledge of their life. And even in this he is handicapped, for, in the majority of cases; nine-tenths of the products made by the people whose handiwork he wishes to study have disappeared as completely as their language and their religion. Gone, in many areas, are the wood, the bark, the basketry, the vegetal fibers, the gourds, the skin and furs and feathers they used — all long perished through the agencies of decay. The few objects remaining are only such as happened to have been made of durable materials."

Not that we can't study past behavior by looking at the durable materials "left over" from hundreds or thousands of years, but our view of past culture is more nearly complete when a full range of materials has survived.

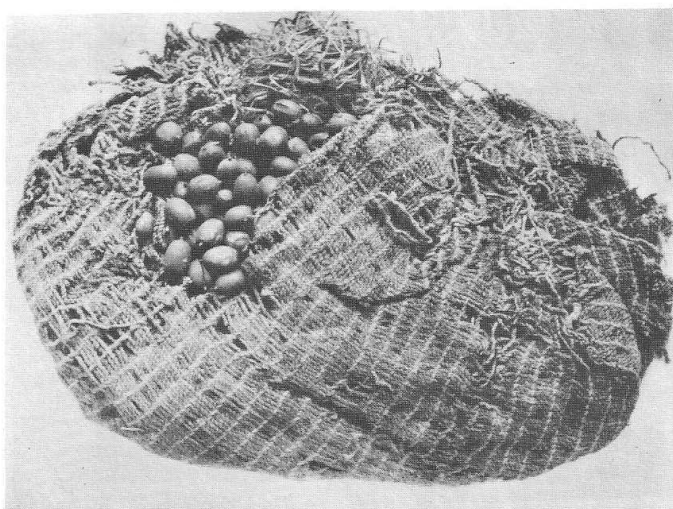
With respect to acorn utilization by prehistoric Indians of the Ozarks, one may question just how much more we can learn from these well preserved remains from the shelters than we could learn from inference of how other Indian groups from other areas collected and prepared acorns. To show how acorns are prepared and to demonstrate how the archeological material from the Ozarks adds significantly to the understanding of this food-getting strategy, I will first describe what we know or what others have said about prehistoric use of acorns and then show how archeological evidence from the Ozarks supports, refutes, or refines these ideas.

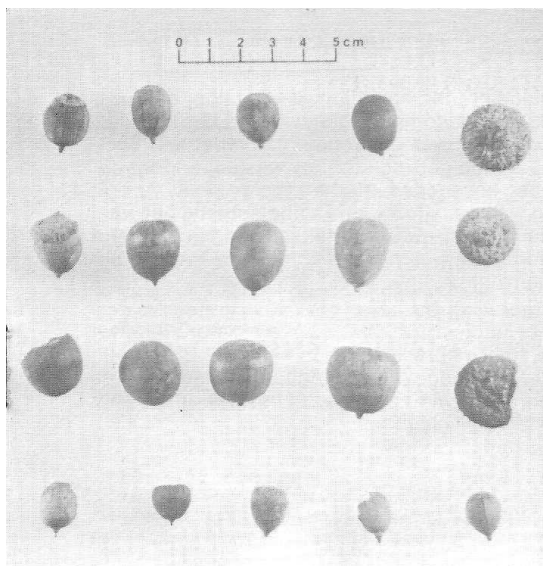
Acorns, of course, must be gathered in the fall, from late August through the end of October. The California Indians used long poles to knock the acorns from trees (Baumhoff 1963:162). They were then gathered in baskets, taken to camp, and processed. Most species of acorns are naturally bitter to human taste; they contain from 4% to 9% tannic acid. The knowledge of leaching tannic acid from the bitter acorns was a technological innovation, since it made this relatively abundant natural resource suitable for human consumption. Archeological evidence from the southeast and other areas of North America suggest that this innovation took place at least by 7000 BC or 8000 BC, since this is the time when charred fragments of acorns appear on archeological sites (Chapman 1975:234). The process of leaching involves boiling or soaking the tannic acid out of the nut meat. The easiest, most efficient way of doing this is to shell the acorns, then grind the nut meats into a pulp using a stone mano and metate or wooden mortar and pestle.

Another way of preparing acorns is to boil the nut meat for the extraction of oil. This method of oil extraction was used extensively by southeast Indians to prepare hickory milk from hickory nuts and walnuts (Battle 1922). It was probably used less frequently with acorns because of the lower oil content and the presence of tannic acid.

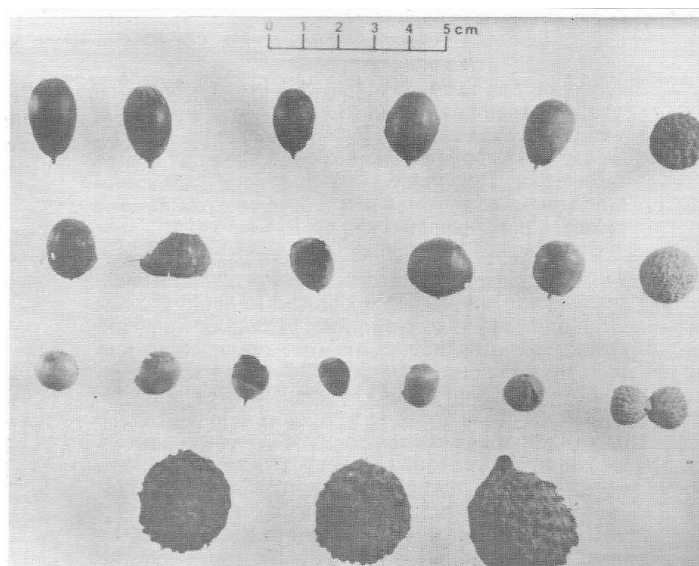
Archeological evidence of acorn use from much of the southeastern United States is in the form of fire hearths or pits with charred shell and nut meat fragments (Chapman 1973; McCollough and Faulkner 1976; Smith 1978, Kaplan 1970). Some archeologists have suggested that nut shells were thrown into fires for use as fuel after the nuts were processed (Smith 1978; McCollough and Faulkner 1976:236). I will later present evidence that suggests an alternative explanation for the presence of charred nut remains that occur on many archeological sites.

**Woven bag** containing acorns, Bushwhack Shelter (Harrington 1960: plate XII).





**Archeological samples** of acorn species from the red oak group. Top row = Black oaks (*Q. velutina*). Second row = Shumard oak acorns (*Q. shumardii*). Third row = Northern red oak acorns (*Q. rubra* L.). Bottom row = Southern red oak acorns (*Q. falcata*).



**Archeological samples** of acorn species from the white oak group. Top row = White oak (*Q. alba*). Second row = Chinkapin oak (*Q. muehlenbergii*). Third row = Post oak (*Q. stellata*). Bottom row = Bur oak (*Q. macrocarpa*).

One last issue I would like to address before presenting the Ozark data is the idea of cultural preference of certain species of acorns. The California Indians, for example, preferred certain species of acorns over others (Baumhoff 1963). The tan oak, actually not a true oak, was the preferred species wherever known. Other preferred species were the black oak and the coast live oak, whereas the Oregon oak and the valley oak were thought to be less desirable species. Archeologists in eastern North America have suggested that acorns of the white oak group would be preferred, since these acorns have lower quantities of tannic acid. This is based more on speculation than evidence, however, since most acorn remains from archeological sites cannot be identified by species because of poor preservation.

Excavations in the Ozarks led by Mark Harrington in the 1920's (Harrington 1960), and, more importantly for my study, by S. C. Dellinger of the University of Arkansas Museum in the 1930's, and James Cobb in 1974 (Cobb 1976) provided the basis of my study unit. Approximately 2500 acorns from five Ozark shelters were analyzed to determine species when possible, and in all cases, for sub-genus identification, that is, to determine if acorns were of the red or white oak groups. Other observations were made as well in order to make inferences about how acorns were processed. To my knowledge there is not any larger data base of identifiable acorn species from an archeological context from anywhere in eastern North America than in the University of Arkansas Museum.

Analysis of the acorns indicate that 68% of 2,481 were those of the red oak group (Hilliard 1980:44). Only one of the five shelters contained more white than red oak acorns. Most of the acorns were whole and unshelled and many showed signs of parching or roasting. Explanations of the high percentage of red oak acorns found in the shelters center around

two alternatives: 1) that there was a conscious selection of some species over others for the majority of the crop collected, or 2) the natural availability of red oak acorns was greater than that of white oak acorns, therefore more red oak acorns would be collected in any given year. To consider the second alternative first it is essential to know that the data used are from a late prehistoric context. Probably all shelter occupations from which the acorns were excavated date after 1000 AD. One firm date from the Bontke Shelter, excavated by Cobb, is around 1400 AD (Cobb 1976:598). Although it is difficult to apply modern information about forest composition to prehistoric situations, all available information, including information about forest composition at the time of Euro-American settlement, indicates that oak tree forest composition has remained relatively stable at least for the last 1000 years. Since both red and white oak trees occur throughout the Ozark Highlands in mixed oak forests, I see no reason why forest composition would cause a selection of red oak over white oak acorns. Other factors such as difference in the quantity of nuts various species produce seem also to make no difference in selecting red oak over white oak acorns. It is possible that the difference in quantity between the species found in shelter deposits is based upon nutritional reasons rather than upon any difference in the availability of the two major groups of oak acorns. Red oak acorns contain significantly higher amounts of fat (Short and Epps 1976:286), therefore the caloric content of red oak acorns is much higher than acorns of the white oak sub-genus. The fact that the higher fat content of red oak acorns would satiate hunger more quickly than other acorns and would provide a richer diet is a plausible explanation for the selection of these acorns over those of the white oak group. The difference in caloric values and fat content could certainly have been noticed by prehistoric groups,



since red oak acorns would give a greater feeling of gastronomic satisfaction than the same quantity of white oak acorns. From an ecological viewpoint, it would be far more efficient to collect red oak acorns rather than to collect a much greater amount of white oak acorns to obtain the same level of food value (Hilliard 1980:46).

Experiments processing acorns and other observations of the archeological materials allow us to detail much of the behavior involved in acorn processing and use. Archeological evidence from the Ozarks indicates that acorns were stored whole. It is unlikely that acorns could be stored in this fashion without first being dried in some way to stop the nuts from germinating and to kill any insect larvae that might be contained in the nut meat. Curculio weevil larvae infest as much as 25% of acorn crops during some seasons (Goodrum et. al. 1971; Mcquilkinn and Musbach 1977). The easiest, most efficient method of eliminating moisture within the seed and at the same time killing larvae within the nut meat is by slightly roasting the acorn. This, I suspect, is the reason that the majority of acorn remains found in archeological sites are charred and are associated with hearth areas. Roasting acorns is a simple, efficient way of preparing nuts for storage. They could then be used throughout the winter by shelling and leaching a small quantity when needed for meal or for other cooking purposes.

Ecological data concerning the diets of deer, squirrel, and other animals indicate that scheduling of acorn procurement would be important to insure the gathering of a sufficient number of acorns to last throughout the winter months.

This leads us to the question of how important acorns were to the diet of Ozark prehistoric inhabitants. Were they a staple food source as they were in California, or were acorns mainly a minor food item or "starvation food" particularly important when corn crops were poor as has been suggested was the case for some Indian groups elsewhere in the southeast (Campbell 1959:15)? Although there is no way to determine exactly what percentage of diet they constituted, there are some interesting data that indicate the relative importance of acorns to the total aboriginal diet. James Cobb, in his work at Bontke Shelter just over the Arkansas line in Missouri, discovered and had analyzed 14 human fecal samples from excavations at the shelter. Several of the samples contained a high percentage of acorn meal, three more than 70%. Wakefield and Dellinger, in a 1936 article, discussed the analysis of a well preserved burial discovered in a bluff shelter (Wakefield and Dellinger 1936). Fecal material from this specimen contained acorn meal as well as other plant foods. These data, as well as the quantity of acorns found in the dry shelter deposits, suggest that acorns were used extensively in the Ozarks as a major fall-winter food resource.

Information from the Ozarks suggest that 1) selection of red rather than white oak acorns was being made on the basis of the higher nutritional value of red oak acorns; 2) that acorns were being stored in the shell and used throughout the winter; and 3) that roasting whole nuts was an important and efficient means of preserving nuts for their later use.

In conclusion, the selection, processing, and use of acorns was a complex behavioral adaptation to many ecological and environmental variables. Success in this food-getting strategy was dependent on an intimate knowledge of the environment. Acorn gathering was not simply a foraging activity, but was a conscious attempt to plan ahead for the ensuing winter months in which other sources of food could have become scarce.

### Acknowledgements

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Currents — Bluff City Canoe Club

## From Paddle Trails

Pulaski Chapter Newsletter

### FIRST STEP AT MAUMELLE

The first step toward getting the Little Maumelle River recognized as a part of the Arkansas Scenic Rivers System will have occurred by the time you read this. The Citizens Advisory Council, composed of five local citizens in the Maumelle River area and three members of the committee met at Pinnacle Mountain Park to discuss the proposal.

Landowners seem genuinely interested in protecting the high quality of this stream from pollution and other degradation. Scenic river designation serves the interest of landowners as much as it does preservationists.

### WILDWATER REPORT

*(Being in the Mid-South, Arkansas is only a few days drive East or West from some of America's best white-water canoe/kayaking. Since these trips are within the reach of vacationing Chapter members, we thought we'd run reports on Appalachian and Rocky Mountain trips from time to time to acquaint members with white-water opportunities available in our region. This report is compiled by Stewart Noland and concerns a early July trip to the Ocoee and Chattooga rivers of the Southeast.)*

After a double-digit drive, our van of Little Rock area paddlers reached the banks of the Ocoee River, after leaving Little Rock on Thursday afternoon, July 3. We bedded down on a blanket of pine needles, anxious about our prospects for the coming day on the Ocoee.

The Ocoee is located in extreme southeast Tennessee near the town of Cleveland and adjacent to the Georgia-North Carolina border. It is a picturesque river, but has been harnessed by man. We met with two other groups of paddlers the next morning and put in at Dam No. 3 for a float down to the powerhouse.

A rusty paddler should beware, because you peel out into a Class II rapid as you leave the put-in. The first major rapid you encounter is Vegemetic, an aptly-named rapid that requires good boat control to prevent a swim. After Vegemetic, the action picks up again with Slice and Dice, Heros Right Turkeys Left and Double Trouble, all Class IV rapids. The Ocoee's pace slackens somewhat after Double Trouble as it passes through a slow area known as the Doldrums. However, you come out of the Doldrums into Tablesaw, which gets its name from a vicious-looking jet of water slung skyward by a rock at midstream.

After Tablesaw comes Eight Ball, with its two huge holes for playing and surfing, then Acceleration, Hell Hole and Powerhouse. For 4½ miles the Ocoee is full-to-the-brim, stiff-as-you-can-mix it whitewater — great fun.

That night we drove about two hours east to the Chattooga of "Deliverance" fame, which is located east of Clayton, Georgia, on the border of Georgia and South Carolina. It is now a national wild and scenic river.

After watching several parties run Bull Sluice, the final rapid on the Section III run, we prepared to tackle Section IV the next morning. At a level of 145 the trip started easily enough with Surfing Rapid, Screaming Left Turn and Rock Jumble all Class II or III. Our first real obstacle was Seven Foot Falls, an accurately-named drop that can slam any unwary paddler into a rock wall. We all breathed a little easier as we paddled away unscathed.

All but one paddler portaged the dangerous Woodall Shoals, a deceptive place that has claimed several lives. Stekoa Creek rapids and Raven's Chute were run before we reached the calm before the storm — the infamous Five Falls Area of the Chattooga.

The Five Falls Area includes Entrance Rapid, Corkscrew, Crack-In-The-Rock, Jawbone and Sock-Em-Dog. We carefully studied each rapid and activated the safety throw ropes for this stretch. We all eventually bounced and lurched into the relative calm of the large recovery pool below Sock-Em-Dog without mishap, staying to lunch and play in the surf before the crowds caught up to us.

We passed the last major rapid, Shoulder Bone, and then paddled the grueling two miles to Lake Tugaloo over flatwater to the take-out. The Chattooga had provided us with agreeable weather (Arkansans aren't used to paddling whitewater of Class IV caliber in only shorts, PFD, helmet and shoes), excitement and a safe trip.

We stopped by the Nantahala Outdoor Center on the way back to the Ocoee, enjoyed some Wesser, North Carolina pickin' and grinnin' and a good meal. We awoke the next morning to jump in the middle of the exhilarating Ocoee before starting the long drive back to Arkansas and home.

The Ocoee and Chattooga are southeastern rivers well worth seeing first hand for those Arkansans who want to try something a little different and definitely wild.

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*"It is what the taxpayers want and ask their congressmen for, and not what the Army Corps of Engineers want that governs the Corps' work in areas of flood control and recreation, Sam Hernandez, chief of project operations for the Corps' Vicksburg district, told downtown Rotarians Wednesday...." an item from the July 24, 1980, Sentinel Record at Hot Springs.*

**QUESTION:** *Who is it, we wonder, that sees to it that Congress asks the Corps' for the right things? We'll give you three guesses.*

The theory that the Corps of Engineers does only what Congress wants, as an expression of the will of the people, is open to considerable debate considering the Corps' past performance. But, for once we hope they are right because the people have overwhelmingly said they don't want dams on the Buffalo River of Arkansas or anywhere nearby that might adversely impact on the Buffalo by pushing White River backwaters over prime territory on the Buffalo. Both the Baxter Bulletin at Mountain Home and the Arkansas Gazette editorialized strongly about any more Ozark dams in general and on the Buffalo in particular.

The Corps put out a "feeler" about the Society's two oldest adversaries — Lone Rock Dam in Marion County and Gilbert Dam in Searcy County, as part of a national study of potential hydroelectric sites — just like we figured they would. The Arkansas public may be apathetic about a lot of things, but the Buffalo River isn't one of them. The reaction was quick and hot and the Corps quickly announced that the inclusion of these two dams was in error and that they were no longer being considered. We hope so.

The public outrage over any tentative encroachment on the Buffalo River is a good sign that the Buffalo still ranks high in the esteem of most Arkansans. Sure, it's crowded at times and blatantly overcommercialized in spots, but it's still the Queen of Ozark Rivers and, in the words of the late Supreme Court Justice William O. Douglas, "a national treasure worth fighting to the death to preserve." It's nice to know our younger generation cares.

### SALINE PANEL FORMED

The Saline River, one of Arkansas' greatest yet most underrated recreational rivers, is finally going to get some help. At a Sept. 9 meeting in Crossett, a six-member committee was formed by area citizens to oversee improvements in the Saline River. Dr. Joe Nix and other Society members participated in a recent panel to discuss river problems and solutions. Members in the area might want to help this cause.

### BETHUNE OPPOSES PLAN TO DEGRADE WHITE RIVER

Congressman Ed Bethune of Searcy has stated that he will oppose giving congressional authority to the Army Engineers to carry out a proposed plan to "increase by 20 percent" the time the White River is navigable to Newport. The Memphis District wants to widen the White River channel to 200 feet, deepening it to nine feet in 104 locations totaling 56 miles (at a cost of \$21.2 million) to increase the navigability time to 95 percent. Bethune echoed the sentiments of sportsmen-environment groups who documented great damage to fish and wildlife from the project and questioned the marginal "benefits." The original ratio of \$2 in benefits for ever \$1 spent has now dropped to \$1.14 for every \$1. There was no evidence to substantiate the original benefits, much less the revised ones, and Bethune's stand is welcome.

# New Water

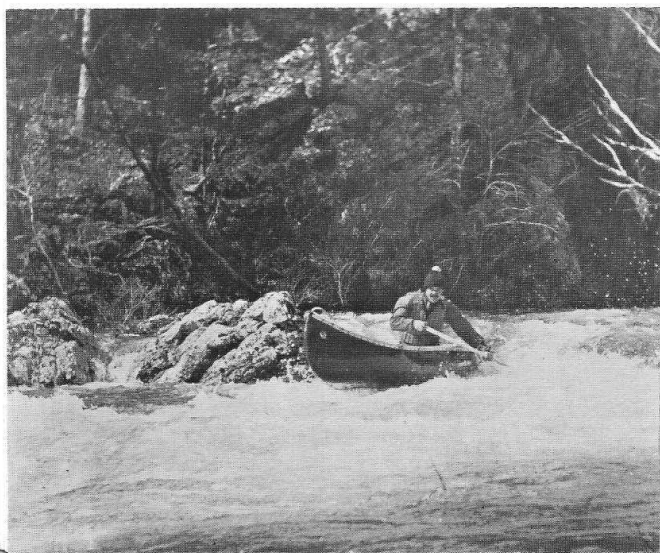
Stewart Noland

The paddling day began in a very typical way: up around six a.m., complete last minute packing, a rendezvous to minimize the number of vehicles taken, and on the road by seven a.m. The destination this particular weekend was the Cossatot River, the white-water gem of southwest Arkansas. The Cossatot watershed had been pummeled with rainfall the previous week with one reported flow level on Friday, May 16 of 8000 cubic feet per second, a high level for the Cossatot experienced only a handful of times each year. But the month was May and with all of the foliage in full bloom we knew the river would be dropping fairly fast without additional rainfall. However, we also knew that we were in for two days of paddling excitement on one of Arkansas' best.

Many of the paddlers that had congregated in Little Rock that morning eventually met at Golden's Store in Athens, Arkansas, to top off their petrol tanks and buy last minute provisions for the upcoming weekend of paddling, shuttling, and camping. Having passed over the Little Missouri River on Highway 84 on our way to Athens we had stopped to check its level. The Little Missouri had 12 inches of beautiful blue-green water passing over the old concrete slab below the newer bridge. This level provides a rambunctious run from Albert Pike campground down to the Highway 84 bridge as the Little Missouri carves its steep and narrow path out of the Ouachita Mountains.

The Little Missouri, or Little Mo as it is frequently referred to by Arkansas paddlers, drops at a rate of about 25 feet per mile from Albert Pike, a Ouachita National Forest campground, through southern Polk County and into Howard County to the Highway 84 bridge. After paddling out of a picture book swimming hole at the campground the Little Mo picks up velocity and seems to constantly move and move and move. As it descends from the mountains it passes some very steep mountains by the names of Pryor, Paul and Big Tom. In addition, Blaylock and Viles Branch creeks empty their clear waters into the main stream along this segment of its ascent. Many swift turns and fast chutes affront the paddler on this stretch but none are as challenging as the appropriately named Winding Stair rapid. Consisting of several drops strewn over a serpentine course the Winding Stair presents a real thrill for the paddler. Appearing just downstream from the influence of Blaylock Creek the Winding Stair threads its path around a lichen covered beautiful grey outcropping of rock so prevalently seen in the Ouachitas. The unwary boater cannot afford to get too caught up in the scenic splendor of the Winding Stair, however. For if one gawks excessively during a run of this rapid he may find himself as many others before him have found themselves: perched atop yet another rock outcropping in midstream having assumed the wet, paddleless and boatless look.

**Navigating** Winding Stair Rapid, Little Missouri — Stewart Nolan



The Little Missouri is truly a gorgeous run, providing the paddler many places to play in the pristine water amid a most scenic backdrop. Because of the characteristics of its valley many paddling friends of mine have likened the Little Mo, more than any other stream in the midwest, to the splendid river valleys so commonly found in the southern Appalachian Mountain regions of eastern Tennessee and western North Carolina. The Little Mo would provide a treat that day to anyone who challenged its waters—no doubt about it.

For this reason, several of us were in a quandry over what to do, especially the open boaters. We didn't know whether to turn back and paddle the Little Mo at this entertaining level, or proceed to the Cossatot knowing that it was high but not knowing how high. After an excessive amount of hemming and hawing, ifing and butting and pebble kicking we rearranged a few boats, agreed upon a later meeting place and headed off in opposite directions. One group's immediate destination was Albert Pike campground on the Little Mo while the others was the Highway 4 bridge, the take-out for the shut-ins run on the Cossatot, or Tot as it is known to some paddlers. Just before reaching Highway 4 that morning we crossed Baker Creek, a tributary of the Cossatot, and quickly noticed that the flow in the creek was great enough to paddle it. We immediately decided to try our first run on Baker Creek.

The first time I had ever heard or seen Baker Creek was in the fall of 1974 when for the first time, and very regrettably last time, I paddled the Cossatot River from Highway 4 bridge to Duckett Ford, a distance of about 4.5 miles. This lively portion of the Tot, as well as several more miles of stream bed, has been acutely changed by the construction of Gillham Reservoir and its resultant slackwaters.

The Highway 4 to Duckett Ford run was at one time the most popular portion of the Tot for open canoeists. It provided a challenge that boaters of yesteryear could meet without the need for a plastic boat and advanced paddling and safety techniques that allow boaters of today to traverse the more rugged upper portions of the Cossatot. The stretch was and would still remain an excellent intermediate skill level boat's delight; culminating in the tricky passages through the offset ledges of Duckett Ford Falls.

Approximately 1.5 miles downstream from Highway 4 the Cossatot turns due east. Before it resumes its southerly flow toward the Little River a large feeder intersects its course from the north carrying the waters of Harris Creek. The flow in the Cossatot increases significantly at this point, perhaps by a third. The mouth of the creek forms a picturesque rock guarded fiord.

Many times rapids will appear just downstream from the confluence of a major tributary. The influence of Harris Creek at this point on the Cossatot is no exception. Just downstream begins what was described in an early account of the Cossatot as Second Rapids, a fairly long rapid as I remember from my first cruise that terminates in Tiny Falls, a three foot ledge that required a diagonally navigated route. No matter, this section is now inundated by the backwaters of Gillham Reservoir.

A little over a mile up Harris Creek it forks. Looking upstream the right hand prong remains Harris Creek, its waters being comprised of Moore Creek, Millseat Branch, Tobe Branch and the main branch itself. The left hand prong is Baker Creek. Besides a myriad of east-to-west and west-to-east fingerlings, Faulkner Branch is the only named freshet that feeds Baker Creek. The initial rivulets of Baker Creek spring from high atop Porter Mountain in southern Polk County and quickly tumble over 1000 vertical feet in eleven or so miles before intermingling with the blue waters of Harris Creek. During its journey Baker Creek passes near two small former settlements of local historical significance, Hartley and Baker Springs. Hartley is the name that has been assumed by a pumped storage reservoir project that has been proposed for the upper portion of the main stream of the Cossatot, the exact status of which I am uncertain. Baker Springs was at one time a resort community that supported several families, one of whose members I recently had the opportunity to meet.

A good paddler and friend of mine from North Louisiana coerced two others of us into backpacking a short distance down Baker Creek this past January on a weekend when the temperature never reached 25°F. The purpose of the trip was to scout Baker Creek to determine whether or not it should be paddled, and if so how much water was required. As cold as it was though what we were to see, and later paddle, was absolutely beautiful.

That morning taking what is known as Ed Banks Road east for about 3.5 miles from where it crosses the Cossatot we approached a low water wooden bridge. Baker Creek passes inconspicuously





**Whiplash Rapid —** Cossatot — Stewart Nolan

underneath the bridge. The rains of the previous week had piled rubbish atop the bridge so we stopped to unload our boats on the west side of the bridge. In all there were seven paddlers, four kayaks and three open boats.

As Baker Creek passes under the wooden bridge it turns and runs due east with the mountains for about a quarter mile. At this point the stream turns southward and cuts across a huge expanse of rock, abruptly exposing to us the first significant cascade encountered during Baker Creek's chase through a spectacular ravine. After leaving the bridge and ending at the end of its gauntlet Baker Creek drops 80 feet with dispatch in slightly less than a mile. About the second 13 of those 80 feet occurs at the first cascade in a distance of about 30 feet. The first drop in the falls is about 3 feet high. The second drop, offset several feet to the left of the first, is about 10 feet high. Most of the paddlers dropped over the first ledge, grabbed a left side eddy, peeled out and dropped over the second to complete the run. As the water gushes over the second portion of the cascade it drops headlong into a pool. As one of the plastic K-1's plunged into the pool he came to an abrupt halt, having nosed the end of his boat under a rock. The boat seemed suspended in air until the force of the water bent the boat in two places like an accordion. After a few suspenseful moments both the boater and boat were able to work free. Although another K-1 had slipped through unscathed the two remaining K-1 paddlers decided to carry this one.

After a short respite in the recovery pool below the first cascades, during which time the K-1 was converted from a musical instrument back to a boat, we continued our trip. During the next several hundred yards were scampered among boulders, eddy hopping between the more significant drops and rapids. Our group leap frogged through the canyon most of the way; one person scouting and showing the way while the others darted cautiously past. At one point a slightly broken rock wall extended completely across the creek in a half moon shape. The water funneled over the 7 foot precipice into a turbulent bowl shaped receiving pool before exiting between two rocks; giving one the sense of paddling into and out of a pot-hole, Arkansas style. Before exiting from the steep canyon we were carried past and over several more boulder gardens and drops, some ranging up to 5 feet high. We all agreed that at higher water levels this particular mile long section would create quite a maelstrom.

Before we reached the take out at the Highway 4 bridge we encountered several other rapids including some river wide hydraulics that the decked boaters enjoyed surfing. Baker Creek drops about 180 feet over its 4 mile jaunt from the wooden bridge to Highway 4. All in all our first run down Baker Creek was a super paddling experience—one not soon to be forgotten.

The brevity of the Baker Creek run allowed us to retrace our tracks back to the Ed Banks Road and put in the Cossatot for a run through Zig Zag, the Esses and the Cossatot Falls, the better known rapids of the area. The run down the Cossatot was scintillating as the headwaters country was pumping about 1500 cubic feet per second through the shut-ins run, a formidable level for both open and decked boats.

## Jousting on Rugged Baker Creek

Jim Simmons

Flowing just east of the Cossatot River in Arkansas is a sister stream, Baker Creek. For several years, paddlers in this area have known about Baker Creek, but because extremely high water is needed to make a run, it hasn't been paddled much. As with the Cossatot Falls on the Cossatot, the massive rock formations on Baker were more than likely formed during the Pennsylvania Era of the Paleozoic Period. The constant force of high water has etched a creek bed that is unparalleled in beauty.

On Friday, May 16, 1980, a two inch rain fell on the surrounding area so that on Saturday enough water was cascading over the concrete take-out bridge that seven of us elected to make a trip. Three open canoe paddlers and four kayakers put in at a low water Weyerhaeuser Company bridge around 10:00 a.m. for the four and one-half mile jaunt (or joust....). Just around the bend from the beginning is the foremost rapid in the steep upper section which drops a total of 125 feet in the mile and a half gorge. It is a four foot notch over a ledge, followed 30 feet later by a 10-foot waterfall into a recovery pool. Craggy rocks dot the streambed at the bottom of this drop making it hazardous for the K-1 paddlers as they dropped over the falls. One kayak was pinned vertically for a few seconds, but the paddler came out unscathed. All three of the open boats and one other kayaker dropped over the falls without incident. Shouts of glee were emitted as it was difficult to keep feelings of exhilaration locked inside.

Immediately following are seven more delightful rapids in the first mile and one-half of the gorge. The streambed is constricted by small boulders and there are two more falls to negotiate, one a vertical drop of seven feet. Eddies are either non-existent or very small. The trip was tight and tortuous with constant maneuvering required in this first section. The "relay" method was used, that being, one paddler would get out to scout and tell the next paddler where the flow was. That paddler would then work us down to the next eddy and another paddler would continue the same procedure. In one place, over the seven foot drop, we all had to get out and scout and set up ropes and cameras.

For the upper mile and one-half section, there was enough water to make the run but a few more inches would have made the trip easier on boats and equipment. Depending on the water level, the upper section would be rated a solid class III section with one segment deserving of a class IV grade at very high water. The last three miles are a nice stretch with delightful class II rapids rushing over large gravel shoals and through small rock gardens. Several ledges formed curler waves and holes for boaters to play. This lower section slackens to an average of about 25 to 30 feet a mile, quite a contrast from the upper gorge section. The entire four and one-half miles features pristine scenery, untouched by human occupation and with heavily forested cliffs that close to the creek's banks. The water quality was superb and on this bright, sunny day it sparkled as diamonds sparkle.

That afternoon this group moved on over and paddled the Cossatot at a medium high level. Those who had the pleasure of both Baker Creek and the Cossatot all in the same day were Stewart Noland, Terry Keefe, Mike Beard, Scott Poole, Butch Riley, Mike Sanders, and Jim Simmons.

### (NEW WATER CONT.)

Around camp that evening all of the boaters were babbling about how challenging the rapids and drops had been that day on the Little Missouri and Cossatot rivers; and they were right. However, and understandably so, a handful of paddlers felt that they had experienced the real "E ticket" ride that day on their new water voyage down the beautiful ravine on Baker Creek.

### A FITTING TRIBUTE TO AN OLD CAMPAIGNER

At its October meeting, the Arkansas Game & Fish Commission voted to rename the Spring River Wildlife Management Area of northeast Arkansas after **Harold E. Alexander** of Conway, a long-time member of the Society and the "father" of stream preservation awareness in Arkansas.

# Review of the State of Arkansas Water Policy

The Water Policy Task Force Report dated September, 1980 reviews many of the problems and issues related to water use in Arkansas. It also brings attention to conflicting uses and discrepancies in the policies which impede the resolution of water use conflicts. It makes certain recommendations, but it is evident that these recommendations need to be more precisely differentiated, and legal and other avenues must be pursued on a continuing basis to effect needed revisions in programs and policies. We have the following comments on this report:

## II. Institutional Considerations

1. Reference is made to the number and separate orientations of Federal and State Agencies which are concerned with the management of water resources.

**Comments:** We agree that these separate jurisdictions and orientations result in continuing conflicts which are often resolved on a political rather than a "best use" basis. Decisions are much too often governed by the "amount of money available from Federal funds". Thus, agencies such as the Corps of Engineers and Department of Agriculture very often dominate decisions on the basis of their orientations and the funds available to accomplish their often limited objectives. The report suggests that strengthening of the Technical Review Committee offers solutions. Our position is that these problems can be resolved in part by:

(a) Legislation giving the State much more authority to plan and direct water use programs, which includes recognition of all potential needs for the future.

(b) Establishment of a State Water Resources Council patterned after the Federal Council, but with much more direct involvement of citizens' groups in the affairs of such a Council.

(c) Changes in water laws recognizing the general and diverse public interest in the uses of surface and ground waters.

## 2. Establishment of a Department of Natural Resources

**Comments:** A plan and organization structure for such a Department was prepared in some detail during the Rockefeller administration and reviewed in other administrations. These initial plans merit review before a plan or proposal is developed.

(a) This organizational arrangement has possibilities, in particular, for effecting coordination in the various natural resource agencies, which currently tend to operate separately in response to the funds available and to their technical capabilities and specialties.

(b) Any planning for such an institutional arrangement should include the participation of representatives of concerned citizen groups.

## III. Availability for Consumption

### 1. Uses of the Arkansas River

**Comments:** The Arkansas River has millions of acre feet of water impounded behind dams.

(a) The primary concern and program should be to effect existing laws and opportunities for controlling pollution, which provide for the abatement of contaminants to the degree that all waters of the United States are suitable for body contact sports and domestic uses by 1983. Proposals to degrade standards for water quality to dilute industrial or other pollutants are **unacceptable**.

(b) It should be observed that large cities such as St. Louis, Kansas City, Cleveland and New Orleans utilize water from rivers and streams which are polluted — demonstrating the capability of modern purification systems to remove pollutants and make such waters available for domestic use. This potential for the Arkansas River must be acknowledged.

(c) Health Department policies which prohibit the use of surface waters for body contact sports where they also contribute to domestic supplies, are obsolete in view of the existing technology for removal of bacterial and viral organisms and other contaminants.

(d) The provisions of the "Compact Agreement" between the States of Oklahoma and Arkansas should be fully applied to prevent the release of pollutants from either State into the waters of the other member of the Compact Agreement.

(e) Adjustments and compromises must be made to permit the uses of Arkansas River waters for industrial and domestic purposes, particularly since the salinity of the River has decreased to a point below approved ppm levels in many reaches of the River, and other opportunities for the abatement of salt content exists.

## IV. Uses of Existing Impoundments for Water Supply

**Comments:** Nowhere in the Task Force Report is there a specific reference to the use of the State's large impoundments for water supplies, particularly those built by the Corps of Engineers. **There are unlimited potentials for utilizing these large reservoirs which impound vast acreages of water, which were built primarily for flood control, to supply domestic and industrial needs.** Potentials for these uses can be realized largely by adjusting the original plans and management plans to include uses for water supply and building conduit systems. This would provide for inclusion of other significant benefits from these reservoirs, greatly enhancing their values which are often limited in ratio to the large costs in public funds for their construction and maintenance.

## V. Groundwater

**Comments:** As is noted, a very great need is the protection of ground waters from what may be permanent contamination related to the disposal of toxic wastes and to other sources of pollution. The U. S. Geological Survey needs additional funding to increase its survey and research programs, which should be expanded.

## VI. Inter-basin Transfers of Water

**Comments:** We are in agreement that restrictions on interbasin transfers of water need to be changed. Any policies or legal decisions which prevent transfer of water from one drainage system to another can result in the separate development of each stream system, with the result that each community demands the construction of a separate impoundment for water supply purposes when construction of a single facility, serving several communities, would greatly reduce public costs and the desire to commit almost every stream to extensive alterations for singular purposes.

## VII. Water Quality

**Comments:** We are in agreement with the statement of problems related to wastewater treatment, with the following exceptions:

1. Thermal discharge problems need much more study and attention, particularly in view of projected increases in nuclear and coal-fired power plants which would release large quantities of treated water into streams and rivers with adverse effects on aquatic life.

2. **The public should be much more extensively involved in the decision-making process for all issues related to water management, and in the protection of water quality standards.**

## VIII. Clean Lakes

**Comments:** 1. High water quality standards should be maintained.

2. We wish to repeat our recommendation that the operation and management of the large impoundments in Arkansas be modified to enable and permit the use of these waters as sources for water supply. These opportunities are almost limitless, and would provide adequate water for both domestic and industrial needs in extensive areas of the State.

## IX. Natural Features

**Comments:** Many thousands of acres of productive lands have been covered up by waters impounded by large dams in Arkansas. The basic objectives were related to flood control, which has proven to be costly and only partly effective or adverse to other resource values. Additionally, the construction of vast systems of ditches has drained wetlands important to wildlife habitats, and resulted in losses of surface waters and their contribution to maintenance of ground waters.

### Wetlands

The importance of wetlands preservation is apparent.

(a) We support the position that wetlands are most important in maintaining surface waters and water tables, and are particularly important as habitats for wildlife and for the elimination of pollutants through processes of "biological purification".

(b) We concur with the position that the State should assume much more responsibility for the protection of wetlands, and that wetlands areas should be mapped and classified. Protection through acquisition, easements, federal laws (404 amendment), a State Water Bank Act and tax benefits to landowners are appropriate to encourage wetlands protection.

(c) We agree that major emphasis in the future should be directed at flood plain management to limit developments and use of the flood plains for agricultural, recreational and other purposes.

## X. Stream Preservation

**Comments:** Preservation of clearwater and lowland streams in Arkansas is of primary importance. Thousands of miles of the State's streams have been covered by impounded waters, channeled or polluted, with profound effects on their natural and inherent values including their esthetic, historic, recreational and hydrologic significance. To preserve streams, the following actions and revisions in policy should be implemented:

1. The "piecemeal" system of consigning streams to structural developments for various and often limited purposes should be evaluated in terms of regional and statewide losses.

2. The Natural and Scenic Rivers Commission should give **primary attention to efforts to preserve streams threatened by development projects**, rather than focusing its attention on stream segments where developments are not proposed or plans for dams, channels or other developments are unlikely.

3. The legislation which established the Commission needs revision to eliminate the requirement for a County by County assignment of Committees or Commissions, which unduly complicates those actions needed to designate streams as natural and free-flowing. Local Committees are warranted, but they should be oriented toward needs and objectives of the program.

4. The establishment of a **Water Resources Council** with review capabilities for proposed plans and projects would help implement and provide support for these efforts.

## XI. Non-Consumptive Uses

**Comments:** 1. **Transportation.** Costs vs benefits for inland navigation projects have not been adequately assessed. We would like to know the actual cost (initial construction, maintenance, interest, amortization, etc. in public funds) before other inland waterway developments are constructed. **The Water Resource Council** has proposed such an evaluation in the interior U.S. before additional projects of this kind are approved. We should support this proposal.

2. Additionally, we support assessment of a user tax applied to these interests deriving special benefits from facilities constructed with public funds.

### Energy

Development of additional hydropower facilities is proposed. We wish to observe, as has previously been stated, that "not more than 5% of electric power in Arkansas is derived from what are

already extensive hydropower developments (dams)". We propose that not only the potential impacts of such developments on land and water resources be fully evaluated, but that true cost vs. benefit evaluations be made before the construction of additional hydropower dams. We do, however, support the review of potentials for incorporating hydropower facilities in existing dams, where practical, and where other adverse effects are not encountered.

Comments Prepared by: H.E.A.  
August 28, 1980, for "The Arkansas Conservation Coalition"

Carolyn C. Smith, Corresponding Secretary

### Arkansas Conservation Coalition

Arkansas Wildlife Federation  
Arkansas Bar Assoc. Environmental Law Com.  
Audubon Society  
Ecology Center  
League of Women Voters  
Ozark Society  
Sierra Club

## Farm Exhibits of the Old State House

"The American Farm: A Photographic History" is an exhibit about the development of farming in the United States. It will open at the Old State House November 15.

In 1794 Benjamin Franklin wrote, "The great business of the continent is agriculture. For one artisan or merchant, I suppose, we have at least one hundred farmers." In 1955 the future Secretary of Agriculture, Earl L. Butz, said, "Adapt or die; resist and perish. . . Farming is now big business." Between those years, agriculture evolved through vast cotton kingdoms, land-runs and homesteading, one-crop farming and its destruction, sharecropping, a depression, migrant labor and mechanization that finally overwhelmed small land-owners.

All of these stages are pictured in "The American Farm." For many Arkansans, its 174 photographs tell their families' stories. During its Chicago showing, critic David Elliott wrote for the CHICAGO DAILY NEWS, "As you move through the show, it expands in the mind and puts a hard, calloused hand on your spirit."

All Arkansans are invited to attend an opening reception for the exhibit Friday, November 21 at 5:30 p.m. At 6:30, "Bound for Glory," a film about Woody Guthrie's life, will be shown in the Senate chamber. Saturday, November 22, "His Arkansas Land," a film which traces the development of agriculture in the state, will be shown at 1:00 p.m. Sunday, November 23, a gallery talk will be given in the exhibit at 1:00 p.m. A supplemental exhibit, "Artifacts from the Spencer Polk Farmstead," will be discussed and farm machinery used in the past in Arkansas will be on display. No admission fee will be charged for any program.

Visit the Old State House at 300 West Markham in Little Rock to see "The American Farm" or call 371-1749 for more information about the exhibit. The museum is open from 9:00 a.m. until 5:00 p.m. Monday through Saturday and from 1:00 until 5:00 a.m. on Sunday. It will be closed Thanksgiving Day.



## SHORT STROKES

Congratulations are due the president of The Ozark Society, Dr. J. W. "Bill" Wiggins of his recent promotion at the University of Arkansas at Little Rock. Bill was named associate dean of the UALR College of Sciences, having served as an associate professor of chemistry. He has been on the faculty since 1969 and is a native of Paris, Arkansas.

**Clear-cutting**, the controversial forest management practice that not even foresters can agree on, again made headlines at the recent annual meeting of the Arkansas Wildlife Federation. Keith Wright of Poteau, Okla., president of the Kiamichi Conservation Society, blasted the Weyerhaeuser Corporation for its "uncontrolled" clear-cutting activities in southeastern Oklahoma, implying that Arkansas was next on the list. It should be noted that Wright is in the paper industry and is the owner of Wright Sales, which markets paper products in five southwestern states. Wright showed slides of how the Glover River, long a Society favorite, had been turned from a clear mountain stream into a muddy one by siltation from extensive clear-cutting. He charged that Weyerhaeuser has not incorporated wildlife enhancement and environmental protection programs because they were considered too expensive and "wouldn't work." Under pressure, Weyerhaeuser has signed a "memorandum of understanding" with Oklahoma's governor, but Wright said the firm was not honoring it, citing the Glover River as an example. Dr. Joe Nix, former Society president and chemistry professor at Ouachita Baptist University, decried the lack of data on forestry practices in Arkansas. Nix said the voluntary "best management" practices for forestry in Arkansas' new water quality management plan are "not good, not comprehensive." He warned that if they don't work, the federal EPA will step in and he wasn't happy about that either, saying the EPA has "too many lawyers and not enough scientists."

## AN HONOR JUSTLY DESERVED

PADDLE TRAILS, Newsletter, Pulaski Chapter  
September 1980

All too often we pay tribute to outstanding people only after they are dead and buried, but such is not the case with Dr. Joe Nix of Arkadelphia, the former Ozark Society chieftain who was recently named the 1980 Fellow of the Museum of Science and Natural History. Joe was having none of this post-mortem honorarium business, but was on hand in the flesh to down his fair share of the champagne at an Aug. 14 reception held in his honor.

The enemies of a natural Arkansas will also have due cause to remember Joe Nix, the sage of the Caddo River, for he has left another type of enduring legacy — inquiring minds. Gosh knows how many river-loving future leaders of our fair state Nix has turned out of Ouachita Baptist University and he's only getting warmed up to the task. No federal agency will ever again dam a scenic Arkansas river like the Caddo without having to answer a lot of questions Joe Nix taught us to ask. And that's quite an accomplishment for any educator.

## 10% Discount on Books

For Ozark Society Members, the Ozark Society Foundation now offers a 10% discount on all of its books. The 10% discount does not apply to the Hedges' Canoeing Guides, as they are published by the Society rather than the Foundation.

These books are available:

<i>Cadron Creek: A photographic Narrative</i> by Lil Junas (hard cover)	\$10.95
<i>Arkansas Natural Area Plan</i> (paperback)	8.95
<i>Illinois River</i> (paperback)	3.95
<i>Buffalo R. Country</i> (paperback)	9.95
<i>Buffalo R. Country</i> (clothbound)	15.95
<i>Buffalo River Canoeing Guide</i> by Hedges (paperback)	2.00
	no disc.
<i>The Mighty Mulberry, A Canoeing Guide</i> by Hedges (paperback)	1.00
	no disc.

Deduct the 10% discount from your total book order, and order from **Ozark Society Books**, Box 3503, Little Rock, AR 72203.

## From the Missouri Conservationist

*Wild Edibles of Missouri*, the latest book published by the Conservation Department, is now available.

Written by Jan Phillips of St. Louis, the book is 256 pages of information on finding, gathering and cooking everything from acorns to yucca. Recipes, all from the author's own experience, show how to turn wild Missouri plants into biscuits, fritters, jellies, juices, pancakes, pies, salads, soups and more.

Each plant is carefully illustrated by a line drawing. Nearly 50 pages of full-color paintings by the author show that wild plants are beautiful as well as edible. There is also a section, fully illustrated, on plants that are poisonous or have poisonous parts.

Even if you don't plan to try every recipe, *Wild Edibles of Missouri* is a treat to read. Mrs. Phillips' writing is energetic and entertaining as she weaves together natural history, folklore and the continuing story of her own family's experiences in gathering and eating wild plants.

*Wild Edibles of Missouri* is available in soft cover only from the Department of Conservation, P.O. Box 180, Jefferson City 65102. Price is \$4.50 per copy, plus 18 cent sales tax for Missouri residents.

MMC1

## From the Missouri Conservationist

*A Key to Missouri Trees in Winter* is written by Missouri Conservation Department naturalists Jerry Cliburn and Ginny Klomps. It unlocks the winter secrets of 110 native Missouri trees and several widely planted, introduced species.

The individual characteristics of buds and twigs are used in a methodical approach to tree identification. A twig illustration, and in some cases fruit and leaf illustrations, are included for each tree. A distribution map is also included for each native Missouri species.

Copies of the book, a paperback, cost \$1; Missouri residents should include 4 cents sales tax. For a copy, send a check to Missouri Department of Conservation, P.O. Box 180, Jefferson City 65102.

Jim Auckley

## NEW BUFFALO COUNTRY BOOK

*These Hills, My Home* is the captivating story of the people of Newton County in the Arkansas Ozarks, the heart of Buffalo River country. Through the stories passed down to old-timer Frank Villines, Billie Touchstone Hardaway depicts the lives of the settlers of the area and their blacksmithing, cedar harvest, "lasses makin'", and, of course, tall tales. For readers with a genealogical interest, Mrs. Hardaway includes nearly a century of marriage records on the families of Newton County, dated from 1781, as well as burial records and a name index.

The book is sure to appeal to all who know the Buffalo River — the nature lover, floater, and backpacker — as well as to those with a historical interest in the region.

180 pages/photographs/5½ x 8½.

You may order from: **Billie Hardaway, Rt. 2, Box 53-A, Homer, LA 71040.**

paperback, \$5.95 each; hardback, \$8.95 each  
Add \$1.00 to your order for postage and handling.

My \_\_\_\_\_ check or \_\_\_\_\_ money order is enclosed.

Name \_\_\_\_\_

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

## A BLUFF CITY CANOE CLUB TRADITION

**The November Eleven Point Trip** — This is the trip our members talk about and remember from year to year. You should have been there when the overnight low at the riverside campground was 12°F. How about the year we awoke Sunday morning covered with a couple of inches of snow! And remember when we burned that old toilet seat we found — that was some bonfire! And the campfire stories and games — remember Hotel Aster!

The only time the November Eleven Point trip was a disappointment was a few years ago when the sun shone and the thermometer climbed to 70° — nothing to talk about.

— Ken Kuiken - Trip Leader, BCCC

## The Annual Fall Meeting

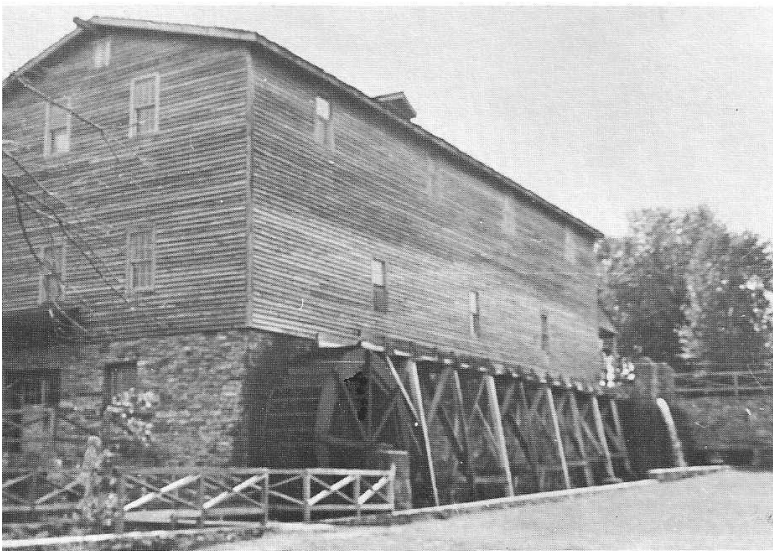
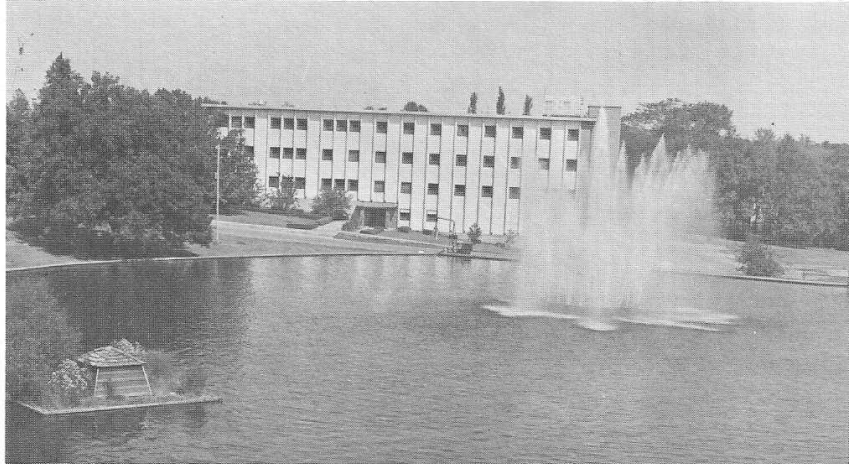
The Annual Fall Meeting, September 13 and 14 at The School of the Ozarks, Point Lookout, Missouri, near Branson, was one of our best. Credit must be given the Henry Rowe Schoolcraft Chapter and Buzz Darby for the arrangements which assured the success of the meeting, the first to be held outside of Arkansas. We were disappointed that more Ozark Society members were not present. Perhaps being in another state made the meeting place seem too far away, but it is nearer Little Rock than is Fayetteville.

The School of the Ozarks has a very scenic and interesting campus. In spite of the severe drouth, the campus was green because of the availability of water from the nearby lakes. Several

were able to stay in the excellent motel facility of the College Center which also houses the Cummings Auditorium, where the meetings were held, and the cafeteria. The rooms on one side of the motel overlook Lake Honor and the memorial fountain. A black swan and a few ducks were moving spots of interest on the lake. Only a short distance away is Edwards Mill where grain is ground on stone buhrs operated by a water wheel. The mill is also a museum of nineteenth century objects. Other areas of interest are plentiful on the campus, but most of us did not find time to visit them.

We recommend a trip to The School of the Ozarks for a weekend of rest and "just looking around."

**Lake Honor** and Lyta Davis Good — Memorial Fountain  
Joe Clark



**Edwards Mill** — Joe Clark

## Dues Notice

Please send in your dues for 1981

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

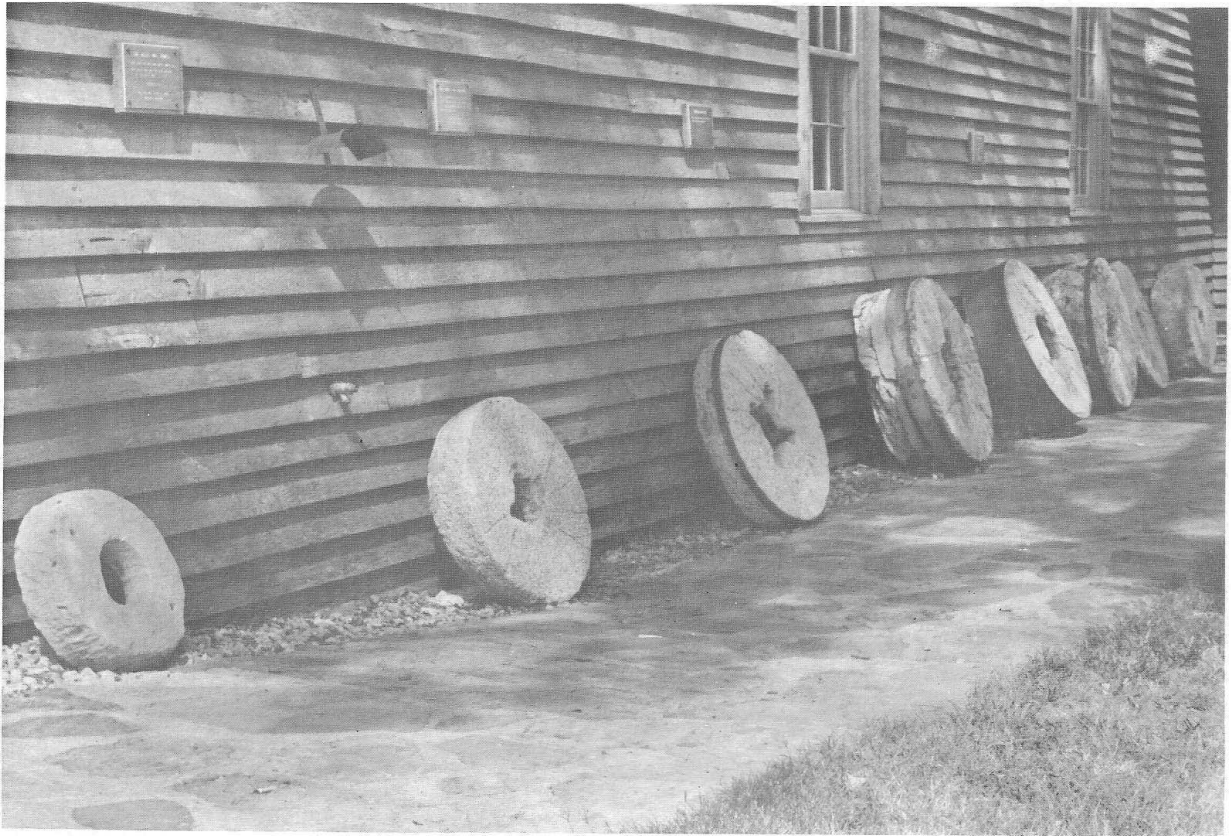
Dues are for the calendar year. They are regular (and family), \$5; contributing, \$10; sustaining, \$25; life, \$100

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

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

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

Telephone \_\_\_\_\_



**Millstones** along wall of Edwards Mill, School of the Ozarks. — Joe Clark