TRANSCRIPT

INTERVIEWEE: Larry Shelton (LS) INTERVIEWER: David Todd (DT)

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[Tape 1 of 2, Side A.]

DT: This is David Todd and it's August 29, 1997, and I'm in Nacogdoches, Texas, with Larry Shelton, and we're here to talk a little bit about conservation in East Texas and particularly some of the forest protection issues that Larry's been working on. I wanted to take this chance to just thank you for spending some time with me.

LS: You're welcome. It's my pleasure.

DT: I'd like to start this with some questions about your days of growing up, and if you could sort of try and speculate about any sort of—I don't know, influences that your parents or teachers or early friends might've had, experiences you had that contributed to your interest in conservation.

LS: Well, I grew up in Houston, Texas, and—for anyone who's familiar with Houston at this point, it's a huge sprawl and they're generally pretty surprised to hear that 30 or more years ago that we lived on the edge of town and there was a Bayou there with a lot of fairly natural habitat and lots of open fields yet which were completely undeveloped, so very early on in my life, I had plenty of opportunities to get out and about and explore different areas that were undeveloped and—catch little critters like frogs and lizards and what-not. And, fortunately, my father, who was raised in a rural environment in New Mexico, was very committed to spending as much time as he could with his sons. There was five boys in the family and I had two sisters, and a pretty good science family. But—at least one or two weekends a month my father tried to take his boys out fishing or camping or get us—get us away from the house and share some of the things that he used to do when he was a boy. So it was—really enjoyable, for the most part. We always hated getting up at four o'clock in the morning and we slept all the way and—but once we got there at eight and got into fishing or setting up camp or whatever it was really great, so having a committed father has been a huge asset.

DT: Where would you go?

LS: Well, my earliest recollections, my first camping trip I was about five years old and we went to—went to Stubblefield Lake on the Sam Houston National Forest. So, I just remember my father, he—you kind of have these images as a child, you know, of things larger than life and, "We're gonna go where the big trees are. We're gonna go see the big woods," and—I just remember leaving Houston and going past the fields and the—the farms until we finally hit the areas that went through the national forest and there was just these big walls of trees on both sides of the road and it was—I was very—it was pretty awesome to me, awe-inspiring, and I was always terribly afraid to get very far off the road 'cause I was certain that I would be lost. These were big, deep woods with no boundaries and so, it was a very exciting thing and real adventurous as a child. We would go to the National Forest a number of times and later on I joined the Boy Scouts, and of course we had regular opportunities to get out then as well. We'd go to different scout camps and

once or twice a year we'd go up to Rat Cliff, which is on the Davey Crockett National Forest. And that was always a treat to go up there so—got a pretty long history with the National Forest.

DT: What would you do in the Boy Scout outings?

LS: Well, the trip to Rat Cliff was really pretty interesting because it was what we called our R&R—rest and relaxation trip and it was the one a year where we weren't required to work on merit badges and everything but yet, the one requirement was that you had to fabricate our own sleeping shelters. So, there was quite often old shower curtains taped together and wrapped around some kind of a stick and we basically just prayed that it didn't rain. And we had to backpack in, which at that time—Rat Cliff was not as developed as it is now—the recreation area is not that developed. It was just a little ol' dirt track, and so we'd hike in and, you know, that being—oh, 20-some-odd years ago, backpacks weren't near as comfortable as they are now and the old canvas shoulder straps would, you know, have us cut to the bone just about and carrying these heavy stainless steel kits and so it was—it was some trip.

DT: Well, then, later on I understood that you came back here to school in Nacogdoches. Do you remember any teachers here that were interested in some of the forest issues or maybe in conservation issues that you met up with?

LS: I did move up to Nacogdoches here in 1976. I'd spent the first 18 years of my life in Houston and I came up here to Stephen F. Austin [State University] to study forestry, and that was basically my first time to live away from home and so it was a—I was pretty wideeyed. It was quite an experience, leaving home and—at that time, I did—I did attend school for about three semesters and so you're pretty much taking general—more generalized classes at the time but—they were—were definitely trying to weed out the serious forester wannabes from the not-so-serious, and a lot of early classes were extremely difficult and at that time there was a tremendous focus on the economics of forestry. So, at that time I did feel a considerable conflict between my own personal desires to enjoy the natural world as it was, as opposed to utilizing and have an economic resource. And, I'll always remember my Boy Scout days that it was strictly forbidden to cut down a living tree. And one camping trip. I went out to gather some fire wood and I picked up a bow saw—we weren't allowed to have hatchets—and wandered off in the woods and there wasn't much wood except for this young green sapling that was sitting there laying on the ground and it had just in the last several weeks been chopped down with a hatchet and nobody took the tree. So I knew that green wood wasn't very good firewood but I picked it up anyway. And so, when I walked back into camp, you know, the men saw this green tree and they just put me through the mill over it but—in spite of the fact that it had been chopped with a hatchet which we didn't have and was weathered, and I only had a bow saw, that I just never could convince them that I didn't cut down a green tree, and I was thoroughly chewed out for that, so the concept of just going in and cutting down entire forests was quite a strange one after that type of indoctrination of very strict protection of the forests. But, I ended up spending about three semesters at Stephen F. Austin and it was interesting and I did get a lot of information as far as identification of tree species, which I still use heavily, and a basic knowledge of forestry. We certainly need the resource. We use lots of wood and we've got to have it. It's a resource we need to take care of, but it was—the emphasis was very strongly skewed towards, you know, production of wood products, and that was the purpose of the forest was to cut it down. O.K.

DT: Well, I understand that in years since school you've been a wood maker—a cabinetmaker, rather—and I was wondering if you could tell a little bit about how you both appreciate the forest and use the wood that comes from the forest.

LS: Well, it's interesting that, from my earliest recollections in life, I remember my early camping trips and—also one thing we did regularly was go visit my grandparents in central Texas and they lived out in the "country" and they had rural property and we loved to go out there and that really—strongly influenced my desire to live a rural life, and from my just the earliest remembrances. I have these visions of sitting on the front porch of this old cabin out in the woods. It's like a vision or a dream that ultimately came through. So—and likewise, I built my first wooden article at about five years of age. My father was an engineer and a real jack of all trades and he had all kinds of tools around, so I got the old hand saw and a couple of boards and—about four boards and sawed 'em into pieces and banged 'em together and bingo. I had a little bookshelf that I could put some of my books on. So—very early on in life I've had strong feelings towards both creating things out of wood and enjoying the outdoors as well. And, I think as a woodworker and as a small business that I am, I'm able to often utilize certain resources that commercial interests cannot. Frequently, people offer me trees that have died in their yard or on their property. and when I have the opportunity to cut and salvage dead trees or storm-damaged trees, I certainly try to do that. And, operating with small equipment, like just a trailer and a pickup, I can frequently secure materials with a very minimal impact to the surroundings there and often get a much higher quality product as well. It's more labor-intensive but it's very rewarding, and it's quite different from going out and clearing huge tracts of land for just a single species, like pine, and cutting down green trees. So, I feel like there's certainly ways that you can harvest the resource without doing serious damage to the environment, the residual forest and...

DT: Can you talk just briefly about some of the things you look for in trees that you might select to cut and use for wood? For your cabinets or whatever kind of finished products you're trying to make?

LS: Well, a lot depends on what you're—you're making and I guess from—years and years ago the early settlers came through and they knew exactly what each wood was good for, so a lot of research of old pieces and old writing and listen to the old-timers, you pretty much figure out what particular woods are good for different things, so

DT: Well, take the chair that you're sitting in. It—can you guess what the seat would be made of or the spindles in the back or—do you think that they used different kinds of wood for different parts of a chair?

LS: In a lot of applications they did. Not specifically this chair, but one example would be a Windsor chair, for example, where—these were built back into the 1700's but they used individual woods that were the best suited for the different parts of the chair. The seats were solid wood, and they were scooped out or hollowed where you sit to make 'em a little more comfortable, and that was made from pine because it hollowed easily—it was a fairly soft wood. The legs were typically made out of a wood that turned well on the lathe, and maple was a good choice for that. And frequently the back of the chair was a bow on bowback Windsors, and that wood needed to curve easily or be able to be bent easily, when it was steamed, and so white oak and hickory were used for that. So—and also, as these harder woods—the hickory and the maple—were joined to the pine seat, which was much softer, it gave the chair a greater longevity because the—when you have very hard

materials bearing against each other they'll tend to wear each other out, but the pine was almost soft enough to where it could give just a little bit. And the—the design represents some really exception engineering as well, so it's—it's a real pinnacle of craftsmanship, both in its design engineering and the choice of material, so it—it's good to have a general knowledge of woods and where—where they're—what they're best suited for. DT: Can you tell me a little bit about the house that you've built in the woods? LS: It's an interesting place. I bought property about seven years ago, and—I had several goals that I wanted to accomplish in purchasing land, and one of 'em certainly was to have a place to stay. And because of my love for wood, I had been accumulating materials for quite a few years prior to that and I certainly needed a project to put all that into. But, I would say if I had to characterize it in a certain way, it was—it'd be an attempt to showcase a lot of the native woods that we have here in East Texas. Probably 90% or better of the wood in the house is local woods that I either salvaged the trees themselves from blow-downs or from natural kill, or secured the rough-sawn and green boards from a local saw mill and tried those out and—turned them into the various parts of my house. I have big beams and pine and various hard woods. The siding is made out of cypress, which of course is very weather-resistant. The piers which hold up the house are boatark, which is reputed to last a hundred years in the weather and it's certainly holding up well. And I have oak timbers for sills, which are quite durable. Post oak, as a matter of fact, which is an extremely durable wood. I put hardwood floors in the house, and I wanted them to really highlight some of the—the beautiful nature of the wood we have here, so I chose some very pretty woods, walnut and ashen maple. At the same time, I wanted my floor design to be functional as well as beautiful, so I—my front door and back door are directly in line, so I laid a strip of walnut flooring about as wide as a doorway right through the middle of the house, from front to back, and then on either side of that I laid maple flooring, which is much lighter. And there's one step down into my living room, and I used beech, which is kind of a creamcolored wood. And in low-light situations, the contrast between those different woods helps define the walkways from one room to the next and also, kind of give you a little visual outline of where that step is so that you—it's a break in that dark, walnut-colored wood. And so it's functional as well, but it—the maple and walnut are certainly very beautiful woods.

DT: Is any of the wood in your house salvaged from older buildings? Have you been able to see sort of the difference between older timber and lumber versus trees that're being harvested now?

LS: I haven't had much opportunity to use salvaged—older salvaged wood in my house—just to a very, very minor degree on a few little knickknacks but I was fortunate to be involved several years ago in a job of building a staircase for a new house. And in that particular situation, an individual in the county had bought some salvaged timbers from a warehouse that was torn down in Port Arthur, Texas. It was a Continental Rice Mill in Port Arthur. And this building had been framed up from timbers of virgin long-leaf pine, and beams were about 18 feet long and 11 inches square so we're looking at a pretty substantial chunk of a tree here for each beam. And we probably ended up buying about 10 or 12 of those beams from this individual and took 'em to a sawmill and had them sawn up into a little more manageable-sized pieces, and the wood was just phenomenal. On the outside it was gray and weathered and split, and once we got inside it was just as new as the day it was cut. In these trees–by counting the growth rings in there, you can age them

and they were probably 250 to 350-year-old timber, compared to probably an average 50-year-old tree that you get today. So the slower growth rate and the amount of heart wood in there—the rich color of the heart wood—was really—quite different than what you see in this—the faster growth wood today. So it was really a phenomenal—phenomenal resource. DT: Well, could we talk a little bit about the—how forest management has changed and—I don't know how far back we can go but I was curious if you could talk a little bit about the days before the railroads came in, and then how things change once—I guess that things got more industrialized, back at the turn of the century?

LS: Well, timber—the timber industry has certainly brought great changes and revolutionized life in general, whenever it comes to an area. Earlier on, East Texas and a lot of other parts of the country-before timbering became prominent, the early pioneers or settlers relied heavily on agriculture. So pretty much it was a subsistence life of moving into the woods, trying to clear the forest, which—there was no market for the trees so they were just deadened and cleared or burned, and it was a fairly limited existence, as far as having to rely on the resources right there in the forest and producing most of your own wood. It was-probably a pretty low-income life style, you might say. But as the timber companies moved in—some timber was sold prior to that but it had to be carted out on wagons so it was a pretty laborious operation, but once the timber companies moved in or saw mills moved in, then there was a market for timber, and 'course that accelerated the clearing of the forests, and also it gave the settlers, or residents of these particular rural areas, another way to make a living, and as a result, a lot of people went to work for the saw mills. And, there are still quite a few first-hand accounts of these people that worked back in the woods and worked for these saw mills, and their dedication to their work is really—I would call almost surprising, considering the long hours, very, very strenuous job and actually very dangerous working condition. But none of them complained because it was an option to make a little money, as little as it was, and it was a step up from the subsistence farming that they had been involved in. And, once timbering picked up and the companies built their own railroads to move logs out, and that significantly expanded access to different parts of the countryside and definitely opened areas to settlement, and the money built towns and built businesses and certainly built homes and families. It was a very hard life, but those people seemed to-embraced it pretty well. That—in East Texas that lasted probably up until the '20's. We saw actually an acceleration of cutting from about the 1890's to about 1920, so in about a 30-year period, we saw probably 15 million or more acres of east Texas cut out, and by the 1920's, the timber—the virgin forests were largely gone, and that same resource which had built most of east Texas was largely cleared and once it was gone, it ended up leaving a lot of towns and people pretty destitute, because the plan at the time was to buy up a particular block of timber and—that would supply a mill for about 20 years. Once the timber was gone, the mill moved on without any thought of the future, so—quite a legacy from that particular era, and it took several decades for the forest to grow and for the area to stabilize, certainly after having so much land stripped. There was a great environmental and human tragedy as well from the economic collapse and the severe erosion from the cleared countryside. But the companies—some of 'em staved around and tried to learn their lessons and—and tried to grow the forests back and of course we still have a huge industry today.

DT: Can you talk a little bit about the difference between how private wood lots are managed typically and how the natural forests run their land and some of the different

mandates?

LS: We've got roughly ten million acres of commercial timberlands in east Texas, and of those about 5% are public forests, which are the national forests. And about 33%, roughly a third, belong to industrial landowners or timber companies, and about two-thirds belong to private owners. Everything from, you know, a few acres on up to thousands, and probably each of those ownerships are gonna have a different—different management strategies. The timber companies typically focus on maximizing their wood production and trying to grow as many commercial species as possible, which is fine around here, so they—they choose to use plantations. They clear the native mixed forests and plant it back to largely single species of pines, so that they can maximize the production from what grows on each acre, and—in one way, they are getting a good economic return. They're also insuring that there will be future crops of wood, provided that the soil does hold out from this type of intense management. Some private landowners are also engaging in this type of management. But unfortunately a lot of private lands are very poorly managed, and what typically happens is the owner just goes in and takes the best trees, and leaves the worst, or just comes in and does it and takes everything off of it, and doesn't make any effort to reforest it or to insure that seed trees are left to regenerate the area, and there is—as a result, the private lands are frequently not nearly as productive as other lands because they just don't grow back with commercial species or a good stocking rate. So, that is—has certainly been a problem that a lot of people have been aware of for a number of decades. National forests grow their timber for a longer period of time, typically seven years or more. What this does is allow the forest to recover, in between the harvesting periods. What they have used typically in the past, or for the last 30 years, has been an even-age system, where they grow wood in cyclical crops, where at a given point or a given age, all the trees in a given area are cut down, and then they replant those, similar to what the timber companies do. And,...

DT: Can you say—the five service is older than 30 years. Do you know what happened 30 years ago that made them go to even-aged management?

LS: I've heard some different things. I don't—I don't know specifically. One rumor that I heard actually from a forestry professor was that back during the second World War, a lot of the foresters were sent off to fight, and we had a real shortage of experienced foresters. And when it came time to be able to mark wood and get the trees cut and out of the woods, we didn't have experienced markers because what was used previous, before the evenaged management, is the selection management, where you just select mature trees and the lower-grade individuals, so that you're always improving the quality of your forest, and you just continually thin the forest and rely on natural regeneration. But it takes experienced foresters to be able to figure out which trees to cut, so that you're always perpetuating that stand and you're always improving the quality of that stand. And I had heard that at this particular point it just became easier to go ahead and cut the whole stand down and start over, and it seems that a whole generation of foresters grew up with that mentality and it's been that way. There may—there's probably other factors as well, though.

DT: Um-hmm. Well, I interrupted you. I—so you were saying that there's a little bit different management style of the national forest level from the commercial and the private wood lots.

LS: That's right. The national forests are managed for multiple resources there. In addition to timber, the laws which govern the forests mandate that they be also managed for

different resources, such as watershed and soil conservation and wildlife and recreation and aesthetic values as well. So, probably one of the biggest controversies since the initiation of even-aged management has been trying to produce a balance of resources from the national forests. Many feel that even-aged management, and especially this clear-cutting, is really skewed heavily in favor of maximizing timber production at the expense of these other resources.

DT: Could—you touch on this injunction of the last few years?

LS: Well, clearly, since even-aged management has been adopted wholesale by the Forest Service, there has been many efforts to try to curtail it. And it has always been controversial, and that controversy somewhat came to a head within the '70's and was supposed to...

[Tape 1, Side B.]

LS: ...And it has always been controversial, and that controversy somewhat came to a head within the '70's and was supposed to've been resolved with the passage of the National Forest Management Act in 1976, and the purpose of this legislation was to define exactly what these values were of the national forests, define these resources, and define what would be allowed and what would not be allowed. And, clearly the National Forest Management Act allowed for the cutting of timber but it also mandated the protection of these other resources as well, and it did say that clear-cutting could be used but only if it was determined to be the optimum method. So, I guess there's been a large debate over exactly whether clear-cut is the optimum method, since it has been adopted nearly wholesale, across the country. And, at any rate, over the—since the passage of that, clearcutting has gone on and there have been numerous efforts through litigation to try and force the Forest Service to reduce or eliminate this even-aged management technique in favor of selection management or other more conservative management methods. And, recently there's been an injunction placed on the Forest Service covering all harvestings-all harvesting's been shut down in Texas. This was a result of the lawsuit which charged that the Forest Service was in violation of the National Forest Management Act for not protecting these other resources. And the judge did rule in favor of the plaintiffs and found that the Forest Service had in fact failed to protect these resources. One other point of the case was monitoring. The National Forest Management Act stipulates that the Forest Service must monitor the impacts of their management activities, and the judge also found that the Forest Service had been ineffective in monitoring their own impacts as well. This has been a very significant victory. There's been similar injunctions, both in Texas and in other parts of the country, but typically they're overturned by higher appeals courts. This was a brand new issue-the Resource Protection Clause and the Monitoring Clause-so it's pretty much the first time it's been up for judicial review, and so it is very significant that this case hinged on those particular points, new points that hadn't been tried before. DT: Can you talk a little bit about the reaction locally to the injunction? LS: In a word, outrage. It has been quite unfortunate that people don't seem to care at all about the nuts and bolts in the case, the underlying causes and issues. All they see is that the amount of timber—timber land that's subject to harvesting has been altered, you know, excluding—which would exclude the national forests. Little mention has been made that it's just a suspension of harvesting until the Forest Service can get back into compliance. But, clearly the industry has—for the last hundred years has ruled the forests. They have a public stance—public and private stance that they're not willing to budge one inch as far as

land that's available for them to be harvested. And, it also shows that in spite of these forests being mandated to be managed for multiple uses, the timbre industry clearly feels that timber is the dominant use and that they have a right to these forests as far as cutting the wood products. So, the media has pretty much just been focusing on the outrage issue, but the irony here is that the national forests only supply about 3% of the timber products in east Texas. But, very little mention is made of that, and the media would lead the average listener to believe that the whole system is fixing to collapse, which is certainly not the case.

DT: Can you talk some about the Forest Service and its relationship to the industry? LS: That's—that is an interesting subject. I guess different people would characterize it in different ways but—there're certainly quite a few individuals within the agency who feel it's their duty to grow timber and to make it accessible for the timber industry. I think that that particular direction is fairly pervasive, at least to a degree in government, because Congress continues to budget about 70% of the money that they get for the Forest Service specifically for timber harvesting. And the irony here is that across the country, the Forest Service actually loses roughly \$400 million a year, because the value of the timber sold is less than the costs of building roads and administering these sales, and certainly areas up in the mountains—very remote areas—are gonna be the ones that—the sales that lose the most money, so, what we're looking here is a subsidy. The Forest Service subsidizes the industry and Congress keeps appropriating the money to put these sales on the market. DT: Well, how do you think the timber sales stack up against the other competing uses or the—the conjunctive uses of—that you might see in a forest—the recreation, ***, hiking, the hunting.

LS: There's a fair debate over the impacts of civil culture, or the timber production aspects of using the forest. A lot of hunters have been led to believe that clear-cutting is very good for certain types of hunting, especially deer hunting, and in fact deer will utilize clear cuts, because there's lots of sunlight, lots of browse and lots of cover. What they have begun to realize over the year is that as these clear-cuts are replanted and these young pine trees grow up, in about five or ten years, they quickly shade out all this browse that was there for the deer. And the areas that were once admittedly good hunting are really not that good of hunting anymore because there's a thicket of young trees there, you can't see very far, and there's not near the amount of forest that was there before. So there's some debate over just how good clear-cutting is for wildlife, but I think that clearly, once a forest is completely cut, there's no aesthetic resources there for the person who wants to camp out, the person who wants to hike, the person who wants to view nature. Out in the middle of a clear-cut is certainly not where those people are gonna want to go.

DT: Can you describe what a clear-cut looks like?

LS: A clear-cut is by definition pretty much a removal of all merchantable timber from a particular area, and–pretty much looks like a bomb's gone off. The forest is—it's completely raised. It's—all the trees are—that're able to be sold are removed, and pretty much those that are not are knocked over in the–harvesting of the rest, so—very, very little is left. Occasionally a few hardwoods are left for what they call wildlife trees but when you see two oak trees left in the middle of 50 acres, it's hard to imagine those squirrels could be living, you know, in that oak tree standing by itself in the middle of a 50-acre clear-cut, so... DT: And what does it look like when the clear-cut is actually being done and what kind of machinery is out there and...

LS: The—as part of the evolution of the logging industry, we've seen increased mechanization. Jobs has always been a big cry of the timber industry. They insist that they need to cut the timber-they need the jobs, but an interesting statistic is that at the turn of the century it required approximately 16 men to produce a thousand board-feet of lumber. But yet now, because of mechanization and automation, it takes actually less than three men to produce that same thousand board-feet of lumber so, by far, mechanization has cost the industry jobs. As a result, where at one time they used mules to skid logs and cross-cut saws and axes and such things, we've—we've gone on to log-skidders which are very—a very large machine, from eight to ten feet wide, weighing many, many tons, which roll right over just about anything in their path. Now we have mechanized felling equipment. These are essentially—essentially a machine as big as a log-skidder but it has a huge saw on the front, and it's able to go up to trees, you know, two feet or so in diameter, and basically just cut these trees right down and pick them up and literally just drop them wherever they need to—need to be put. And, so-we're seeing more heavy equipment that's being used in the harvesting of timber. So, as a result, this same—an acre of land that is harvested is exposed to the—a tremendous amount of impact-from the felling operation, the skidding operation where the trees are dragged out by this huge log skidder, and pretty much once it's been—the timber's been removed, then we have bulldozers that come back in, and push up what's left in piles. So we have repeated entries, which both compact the soil and also expose it to the elements. This is—whatever's left in the cut is pushed up in the piles or wind rows. So, it's a very, very harsh treatment on the soil, and certainly, this type of treatment has no equivalent in nature. It's very important to note that there's a—the difference between this type of management and selection management is that, both in nature and in selection management, there is a continuum or a continuity. From each generation of trees, there's always something left. There's always something remaining on the ground to protect that soil, to allow for some habitat remaining for wildlife and protection for the streams. When you go in and apply the intensive harvest methods and you bulldoze everything clean to the ground, you've broken that continuity, and these forests' worth, which are essentially the by-product of—of thousands of years and many generations of trees. It definitely ends right there. That's—that's a very serious difference between those methods.

DT: Well, can you say—with a forest that's been clear-cut for two or three cycles now—can you distinguish the difference between it and a selectively managed forest and what do you look for to tell the difference between the two?

LS: Clearly, how you would differentiate those two forests is the age structure of the trees, and that is that one is gonna have trees which are gonna be all the same age, or within a few years of being the same age, and all pretty close to the same size. In the selection forest, you're gonna have every age of trees, from seedlings and saplings on up to mature timber. After several rotations of clear-cutting, or even age management where you're taking everything off the site, you're definitely able to influence the composition of trees more and more towards a state of just a fewer number of species, specifically those commercial species which are being planted out there. Trees like oaks and hickories, which don't even produce acorns until they're 40 or more years of age, don't have a chance to get big enough to produce seed and reestablish themselves in these clear-cuts. So, trees like pines, which grow fast and quickly dominate the site, will just continue to do so, generation after generation or rotation after rotation. So it's—what's happening is, in essence, we're losing

the diversity of species that was once there before. In east Texas we had a species of plants and animals that can handle the full spectrum of forest conditions, from young forests to old forests. There's been a—a species has evolved to fit—to fill every niche in the forest. And as forest management seeks to homogenize the forest, it just erases all those niches and it doesn't provide a place for those specialized plants and animals, and pretty much what you end up with is the generalists, which are the ones that can survive any condition—different weed species and things like armadillos or coyotes that can live just about anywhere.

DT: Would you talk a little bit about some of the specialized species that have had a hard time with the changes in the forest? I suppose the ivory-billed woodpecker or the red cockaded woodpecker?

LS: That's right. The ivory bill is believed to be extinct. There hasn't been a sighting of those in a long time. It is what you would call an old-growth obligate, meaning it depends on those forests. So, apparently when the old-growth forests were cleared, it was just simply not able to adapt. The red cockaded woodpecker is also dependent upon older-age forests, but it-I guess has a little greater degree of adaptability. And it prefers forests that are 80 years and older, in general, and as the timber companies have cleared the older forests and relied on shorter rotations—50 years or less—then these pine trees just never get big enough to be suitable habitat for the red cockaded woodpecker. The Forest Service fortunately has a number of older stands. They have been working for decades to try to eliminate those stands, but there're still some residual older-age stands there that the woodpecker has survived in. And, as a result of a probably 1988 ruling, another lawsuit based on the Endangered species Act, the Forest Service was also found to be out of compliance with the Endangered Species Act in threatening the bird with extinction here in Texas, and so, they had pretty much been ordered to increase the population of this bird to a certain minimum level of pairs of birds on each forest or a certain viable level, and as a result they've gone into what I call crisis management. They're able to take younger trees and climb them and cut a hole in there and actually insert an artificial cavity—artificial nest-into a tree. They've relied on some pretty intensive techniques to try and—to save the bird and have had some degree of success. But that's certainly been the difference between things—old-growth obligates like the ivory-billed and the red cockaded. Some are able to respond to this type of crisis management. But, the populations of the bird have somewhat stabilized as a result of the lawsuit. They were declining anywhere from 10 to 25% a year, up until the time of the lawsuit, so we were in a precipitous decline and pretty much headed for extinction in East Texas. And, as a result of the lawsuit brought by the Sierra Club and Texas Committee on Natural Resources, the populations have stabilized and we've certainly averted an even bigger crisis.

DT: I hear that some of the pressure on East Texas forests and I guess throughout the southeastern United States is due to the agreements on reducing cuts in the northwest, to try and protect another native species, the northern spotted owl, and I was wondering if you could speculate on that—you know, if that is truly—I heard—it's only rumor that I've heard. But, do you think there's any merit to that?

LS: There's several factors there, and I think they're—they all have some merit. One important thing is that—important distinction between the northwest and the south is that there's still a genuine old-growth timber left in the northwest. These are—virgin forests, so to speak, that are many centuries old. In the South we don't have that much of that. Also,

another distinction between these two regions is the growth rate of the trees. We have an extremely long growing season in the South, we have plenty of moisture, we have good soils down here. So, a 40-or-50-year-old southern pine could be as big or bigger than a 150-year-old fir tree, growing in a less productive climate. So, what's happened is that the old growth trees have been—have slowly been being eliminated from the northwest for a long time, and less than 5% of the old growth remains. The regrowth is very slow in many cases, so essentially what's been happening is the regrowth has not been replacing what's been cut, the harvest. And, it was just a matter of time before the old growth ran out anyway, so the ruling with the spotted owl saved the last few percent of the old growth to try to have some habitat for this owl. And, there was gonna be a shift in timber production away from that region eventually anyway, because the old-growth timber was definitely finite there, and the South, as I mentioned earlier, is much more conducive to growing economical crops and trees, so both of those factors—the ruling, and also the growing conditions—have placed a lot more pressure on the South to produce building products.

DT: Speaking of building products, it seems like the kind of products that are coming out of the forests now are different than they used to be. Paper production is up from years ago and then there're entirely new products, like oriented strand board and medium-density fiberboard, and I was curious if you could speculate about how these new products are a larger production of older products, if paper has changed the way the parks are managed. LS: There's been some positive and negative, you know, implications to those changes that you mentioned there. One thing about products like plywood, sheet goods like plywood or this oriented strand board, is that there's not the type of waste that you have in sawing solid material. In the old days, whatever came off the outside of the trees, the sawdust—all the by-products were simply thrown into a pile and burned. They were—the skies were filled with smoke literally seven days a week, 365 days a year of this pall of smoke, of trying to get rid of all this waste. The industry has certainly responded to that. It makes perfect economic sense to try to get as much use out of everything you can from a log, so—the oriented strand board is very efficient. It just chips up whole trees and puts the entire volume of the tree into a particular product. Also another advantage to the industry is that, whereas plywood requires a higher-quality log to cut veneer out of, you can make oriented strand board out of the lowest quality of trees. So, economically it was a good thing, but as far as incentive to grow high-quality wood products, there is no incentive anymore for the landowner to do that. He can just try to maximize wood production without a particular concern of the quality of the forest product that he's growing out there. So, it's good and bad, and pretty much what we're seeing in general is a shift towards younger-age forests, and what that means to the landscape is that the land has less time to recover after these intensive harvests, and it becomes—we lose these specialized niches and it becomes more homogenized.

DT: I understand that the increased demand for paper has helped increase the market for hardwoods, and I was wondering if you think that's good news for diverse forests or it's bad news for hardwood.

LS: What I've seen, personally witnessed in the last 20 years or so, is that trees that formerly were not merchantable–hardwoods, which were either very crooked or were hollow, and typically left in the woods, are now merchantable. They're taking these trees and they're chipping 'em for paper, so—you know, clearly as an example, next to the property I own, you know, gnarly 112-year-old post oak that had one ten-foot log in it was

cut down, whereas ten years ago, 20 years ago, they wouldn't've thought of cutting a tree like that. Old hollow oak trees that, you know, had reared generation after generation of squirrels were cut down because now there's a market for these trees whereas previously there wasn't. So, it's a—there's a desire to grow those hardwoods but—I think the slower-growing hardwoods and the mass-producing hardwoods like oaks and hickories are—will get less and less, and faster-growing hardwoods like sweet gum will take their place that don't have as much wildlife value. I guess also what we're seeing, too, is just pretty much an escalation in consumption. It's just a matter of how much can the forest produce, and there's just ever more pressure on them to produce more and more wood products so—that will—I guess pretty much led the industry to try to utilize every single thing that grows on an acre. Take the tree—sometimes they chip entire trees off areas and leave very little biomass to go back to the site so—we're seeing some genuine examples of mining the soil really.

DT: Oh, I guess the-these forests have natural enemies, as well as the worst that people can throw at 'em. Can you talk a little bit about the damage from pine bark beetles and wind damage and whether you think it significant, and what you think of the Forest Service's responses, including salvage loggings.

LS: Well, different parts of the country have different species and different-what we call natural processes, which are—anything that Nature can throw at them to sort of stir up the way things are and destabilize the forest to any degree, which in a sense is good because it creates specialized niches. As far as wind is concerned—or maybe we'll look at the South. Probably the—one of the driving natural forces in the South is fire. Pines are well adapted to fires. They have in the past been—in the long-ago past started by lightning and indigenous peoples. And another force is also wind, and recent studies have suggested that the return interval of high wind or a tornado is something like once every 4,000 years. So as far as trying to mimic those particular processes-a lot of times a forester will say that a clear-cut mimics a natural process, such as a tornado. There certainly—they might mimic the process but certainly not the frequency. So—also these particular natural processes are not impaired in any way, and as far as the wind, wind is not impaired, so we don't really need to go out and create artificial wind damage. It does happen, though, and it can be severe. Typically the Forest Service goes in and salvages these areas. There's a pretty significant difference between a natural blow-down area versus a salvage blow-down area, and that is that as these trees are damaged by wind, some of them will die. They're injured and they will die standing, others are snapped off halfway up, and this particular natural process will add a lot of diversity to the habitat of that particular area. These dead trees, called snags, are ideal for cabin nesters such as woodpeckers, that will excavate the trunks. Once the logs rot and fall to the ground or the ones that are blown down, they provide a lot of terrestrial habitat for things like amphibians and reptiles that live on the ground. And what this essentially does is continually provides a greater stratification of habitat so that you have everything in there—from the treetops, all the way through the mid story and all the way to the ground.

[Tape 2 of 2, Side A.]

LS: If the area is salvaged, pretty much what they do is they take not only trees that are knocked down but the ones that are injured and may eventually die over a decade or two. And of course the area is exposed to the soil disturbance as well, and that particular windfall, so to speak, of habitat that would've happened, or that will happen in a natural

environment, is lost in a salvage situation. You mention the southern pine beetle, and 'course that's quite a controversial issue as well, because it certainly does have the potential to impact some very, very huge acreages. Certainly, areas in the thousands of acres in one spot are possible with a southern pine beetle. The Forest Service typically goes in and salvages these southern pine beetle spots for two reasons. One, that it's an effort to recover the timber that's in the spots to get some economic return, and also they claim that it controls the southern pine beetle, and–there's a lot of debate over that as well. Once–the southern pine beetle by nature is cyclical. It goes through epidemic years and endemic years as well. And, once we enter into an epidemic phase, the cutting of a particular spot can only cause those southern pine beetles to reinitiate another spot. It does, in fact. I mean, if you literally remove those trees, it does force them to start over. But, no amount of cutting has actually diminished the severity of any epidemic, nor has it shortened the duration of any epidemic. So they cut, cut, cut, cut, and just wait for the epidemic to play out on its own. Likewise, those dead pines did certainly provide another dimension to habitat in the forest, and if they're cut, they won't contribute that.

DT: I'd heard once that the monoculture that the Forest Service is promoting, on the one hand, I guess, helps the timber industry but on the other hand it, you know, fosters a sort of ideal climate for the pine bark beetles because they've got all that much more of a host to work on and...

LS: That's correct.

DT: Do you think that's true or...

LS: That's certainly correct. I think any time that you—concentrate a single species in one spot, they're gonna be more vulnerable to annihilation. It's just like a crop of corn. Whereas you cannot grow a crop of corn without some serious use of pesticides—but of course we cannot grow timber like that. But other examples, you know, certainly bear out that monocultures are very vulnerable to annihilation. There're several factors there, there's a number of factors that—one is that the types of trees that're growing these days, loblolly pines, are the fastest-growing and most commercially desirable species, but yet their numbers have probably been vastly increased over the old days. In the old days the longleaf pine was dominant in many areas where loblolly grows now, and the long-leaf pine is much more resistant to the southern pine beetle. So, one factor is that we have a change in species. The loblolly is the preferred host of the southern pine beetle. The Forest Service does—to their credit, they do grow trees to an older age, and that also literally gives 'em a longer period of time to be attacked by the pine beetles. Also because the Forest Service grows their trees to an old age, they try to maximize the amount of timber grown on each acre for a greater economic return when they do eventually clear-cut that acre, and the greater the density of trees and the greater the competition for nutrients and sunlight, the greater the stress, the more vulnerable they are to southern pine beetles. When you consider things like mixtures of species, like oaks mixed in with the pines, that certainly provides a natural buffer to the spread of trees. And as long as you've got dense stands of trees with their limbs almost interlocking, growing together so tight, they're going to be vulnerable. And the word I'm getting from Forest Service employees is that the—even the young plantations which they're growing now—these monocultured plantations which are typically supposed to be less resistant to a southern pine beetle—are getting attacked as young as ten years of age—ten or 20 years, which—you know. So there, we're seeing the trees attacked at a younger and younger age, which I believe is a result of growing the

loblolly pines and certainly grow 'em in the purity and the density that they do grow them. DT: Earlier you mentioned corn as the *** monoculture that needs herbicides to protect it, and I was wondering if you could talk a little bit about the use of herbicides in commercial and Forest Service lands to maintain ***.

LS: The Forest Service has typically not used a whole lot of herbicides strictly for civil cultural purposes. They have-in particular times, particular phases they've gone through, and then at other times they don't. Largely what they're using herbicides for now is in their red cockaded woodpecker management, which I mentioned earlier is somewhat of a crisis management situation, and there's a lot of debate amongst managers as to what the best conditions are for the red cockaded woodpecker. But the ones with the most power have pretty much convinced most of the others that the red cockaded woodpecker likes fairly pure stands of pine that don't have much mid-story in them. And they're pretty much waging an all-out battle to try to eliminate these mid-story and other hardwoods from these stands. And so, they're using everything from chainsaws to bush hogs to herbicides to try to eliminate the hardwoods in a lot of these stands. And, certainly that is not—shouldn't be used as a long-term direction for management of forests. It's a crisis situation. I don't think herbicide use is very popular at all amongst any sections of the public. And, it certainly has its impacts as well, but I think that as far as the public lands, that the majority of herbicide use is for mid-story elimination of the red cockaded woodpecker. The interestingly enough, the timber industry and a lot of private landowners are increasingly turning to herbicides because, in their view, it eliminates the mechanical impacts associated with clearing areas once they've been clear-cut, and the site preparation, which was pretty much intended to reduce the competition for the new seedlings. They can choose from several methods, and the herbicides are definitely less impactive to the soil, but yet they kill a lot of the diversity species that are out there.

DT: What do you lose with herbicides? I mean, other than the plants or their forest blankens and amphibians that you think are suffering?

LS: It's—I couldn't say specifically right now. They've—the industry has certainly tried to come up with herbicides which are much more selective and attack only certain groups of plants, and others that're definitely, though, harmful to certain types of wildlife. And—certainly there's no equivalent to them in nature, and I think that the thought of, you know, broadcasting poison over entire areas is undesirable.

DT: Well, I had I guess one more question about the forest lands, and I think once you had mentioned that you had heard a public forests supervisor say that, despite the number of laws that are in government and forest management, that it's—the cutting levels and the kind of cutting responds much more to economics than it does to all these legal mandates. Can you explain what he meant and what you meant by that?

LS: Well, I'm not—it'd be hard to respond specifically to that type of thing. I think that what the forests typically do is they're allowed what they call an allowable sale quantity, which is a particular target volume that they're allowed to produce, essentially from these forests, and it's—there's a slot there. There's a certain range and certainly there's a number of supervisors and other individuals who have their own agenda and feel like they're—it's better for their career or for the industry, or whatever, to try and shoot for the high end of those particular allowances as well, and my understanding is that that's pretty much what's been happening in Texas for at least a decade or more. These supervisors who've been there—their actions are the results of the—the management have certainly borne that out.

There's always been a big debate over, you know, what's the best use of the national forests.

DT: Um-hmm.

LS: There's no doubt that at one particular time, a lot of our forest reserves—timber reserves have been severely depleted, and the concept of the national forests came into being to try to have areas in which we could sustainably produce timber for long terms for the public. But as things have evolved, and the timber companies have certainly gotten their own land and tried to produce timber to meet the economic needs of the country, the national forests have not been as important, I don't feel, as strictly timber-producing areas. Some people still want to insist that because that was a main focus 50 years ago that it's still a main focus. But pretty much there's been an evolution, and as I mentioned, the National Forest Management Act, you know, mandates that we need to use these forests for quite a few things besides just timber.

DT: Maybe we can talk a little bit about some of the protected forests, some of the wilderness areas, that aren't subject to logging, and how you can sort of distinguish them, I guess, from some of these logged forests and, as well, from forests in other parts of the country.

LS: We've got—in East Texas we've got five wilderness areas that total about 35,000 acres, and vary in size from about 3500 acres up to about 13,000, and-these areas varied considerably when they were designated as wilderness. One thing that's important to note is that the eastern United States has very little genuine old-growth left, especially in the South, because areas were very accessible to timber-cutting. We're looking at almost exclusively second-growth forests-second-or-third-growth forests here. And so, as a result, all of these areas that are wilderness have seen some degree of logging in the past and have seen some degree of management for timber. But they do represent some of the bestpreserved examples of the forest we have, and once they were designated as wilderness those timber management activities ceased, and so I think just in the last 11 or so years that they have been designated a wilderness they've seen quite a bit of change. One, there's no salvage logging can happen in there now, and—whereas salvage and control of southern pine beetle is a priority on non-wilderness lands, the pine beetle is just considered a natural process in the wilderness, so in many instances there's no effort made to halt that. It's simply a predator-prey relationship that's allowed to go on, so we have seen some considerable-sized infestations in wilderness. And, as a result, those areas, which formerly had been dominantly pine, will possibly or probably go towards either a mixed condition or a hardwood-dominated condition, so we're definitely seeing some changes being set up for the future, as far as changes in composition. Any areas that did have roads were closed, for the most part, unless it was an essential access road to an in-holding or a private tract of land, just-some rare exceptions. So, areas that you once could drive to or get pretty close to, you may have to walk several miles to get into now, so it's certainly increased the resources for solitude and for the physical challenge of getting in and orienteering, navigation. And—one thing that's really encouraging about the designation of these wilderness areas is that research has shown that in old-growth areas, you have a greater specialization of trees or a greater—you see a greater separation of trees, based on an individual species' ability to compete under certain conditions. And so, whereas disturbed areas are a whole lot more homogenous than undisturbed areas, like wilderness or oldgrowth forests, you see trees that can compete best under certain conditions migrating to

those particular conditions, and you see distinct eco tones which divide and separate these different stands as they sort of get settled out to where they can best compete and... DT: Can you give an example of what you mean?

LS: Well, Upland Island is our largest wilderness area, and because it has a fair amount of relief there, it has species which are adapted to everything from very high and dry areas all the way down to bottom lands. And what you see is that as the topographic gradient changes and as the moisture gradient changes, those species which are the most ideally suited for every particular niche will eventually fill those niches. Whereas, say, you took a hundred acres and clear-cut it and planted it in loblolly, it would just all look basically the same from the same types of trees. But as these natural processes come—the southern pine beetle and the wind and flooding and things like that—eventually all these species will get sorted out to where they're pretty much living where they're best suited for and have the greatest chances of survival and the best chance of resisting a southern pine beetle attack or prolonged periods of moisture. A cypress tree can certainly stand that more than a water oak can, so...

DT: You mentioned flooding. Can you talk a little bit about how the forest has responded to, on the one hand, sort of natural flood regimes where, you know, floods come and go and ebb and flow, and on the other hand, the inundation from reservoirs of the past, the ones that are still planned?

LS: Well, there's two—actually three very large reservoirs on national forest land, I think, that may've played a big part in deciding where to put those reservoirs because a lot of the land was federally owned already, and they've really been an environmental tragedy of the greatest sense at that particular time. It just—people just didn't conceive of the losses that we were enduring, and it was just what was being done. We need this—water resources here so let's build these lakes but—bottom-land hardwoods which are now much reduced from their former extent. We're looking at-only about maybe 30 or 40% of our original bottom-land hardwoods are left, and a lot of them have been lost to these reservoirs. And, a lot of the best hardwood stands that we have left are in national forests. One example is Toledo Bend Reservoir, which is in the Sabine National forest. Over 30,000 acres of prime bottom-land hardwood was lost when that reservoir was built. And the lake itself is 160.000 acres, so we've seen a huge amount of bottom-land. But just as far as federal bottom-land, there would probably still be here today of -80 to 100-year-old hardwoods. It's not. It's under the lake, so—the lakes affect the land in two ways. One is certainly those areas that are inundated in the building of the lake, and also changes in the hydrology or the flooding regime below the dams of these areas. Whereas periodic flooding used to limit certain areas to the most water-tolerant trees, that change in the flow of water has allowed other less-water-tolerant species to come in, and in some areas you've seen where pines, which could not survive before, are now planted in plantations right below dams of some of these reservoirs. So it's—they affect—certainly impact an area as big as they are above the dam and almost as much area below the dam.

DT: [Pause.] Let's go back to—to what it's like to be in some of these relatively protected forests. You were talking about wilderness areas before and some of the larger areas, but I was curious if you could just touch on your search for some of the individual trees that are really remarkably big or old and—and how you located some of these champion trees. LS: Well, I guess I'm just driven to explore new areas. Not—not any other reason than that, but I certainly enjoy exploring new areas of the forest and a lot of the wilderness areas are

certainly a good resource for finding new things because they're very remote. One of my favorite areas on the forest is in the Upland Island wilderness and—it's an area of bottomland forest adjacent to the Neches River and there're some truly huge trees down there, and-some I had been shown and others I have located on my own. But, one of the most extraordinary trees down there was a cherry park oak, and there was a lot of debate over exactly how tall this tree was. And some said 150 feet and some said, oh, it was only 120 feet, and—pretty big discrepancy. So I decided that the only way to settle that was to actually just climb this tree, and see how tall it was, so-I had had some climbing gear, and using a bow and arrow and a fishing line, I was able to get a string over one of the lower limbs and—the tree was so tall that my rope, which was 165 feet long, was not long enough to go over the lowest limb and still have anything to—and still be able to tie it around the trunk. So there was a little holly tree next to it. I had to climb about 15 feet up the holly tree just to tie one end of the rope, so it'd be able to touch the ground. And then using mechanical ascenders, I ascended the rope and got up into the crown of the tree, where the limbs were still three feet in diameter, literally as big as other whole trees, and climbed to within about, I think, eight feet of the top of this tree, and got a ball of string and tied a weight on it and dropped that string down, and then estimated-you know, tied a knot in it and then estimated that I was about eight more feet to the top. Came down and measured the string at about 124 feet and then adding eight so the tree would've been about 132 feet at the time. And it was about five feet in diameter, so it was a—the true monster, and—the crown was so big that it just had everything pushed back away from it, so it was a pretty exceptional experience in every way. But, frequently we don't climb 'em, though, to get the heights on 'em. but...

DT: What is a mechanical ascender?

LS: It's a device which clips on a rope, and it's somewhat like a ratchet where it can slide up the rope but it can't slide down. And by using two of them, you're at one time either hanging by one to your waist and you've got another one that's—and you've got a rope tied from one and—with a loop in it and your foot is in it. So as you step up with one, you can raise one, and then hang from the other one and then raise the other one—it's kind of an inch-worm thing—by using your legs to push yourself up.

DT: But there's—the mechanical part is—is mostly yourself.

LS: It's certainly very physical, yes.

DT: Yeah.

LS: A lot of people literally can't do that.

DT: Can you tell me a little bit about your trips through the forest, I guess, in search of these trees or just enjoying the wilderness areas? How you get around, what you use as landmarks in a typical trip?

LS: Well, I'm a real map and compass person. I try to keep somewhat oriented in the woods and I prefer to have a compass just so I can tell what general direction I'm heading but—and maps are good for just defining the boundaries of the space you're in but typically I just navigate by landmarks in the woods. And, being a woodworker and having seen trees or—having knowledge of trees all the way from the time they're seedlings up through saplings to bigger trees and then cut those trees and sawmilled those trees and seeing what kind of lumber is in those trees, I have just a huge database, so to speak, of all the details of trees, of all the aspects and characteristics in their growth, from what they look like to what kind of wood's inside of 'em, you know, I can tell how good of boards they're gonna be. And so, you

know, literally when I go through the woods, the threes are like people to me. I can just recognize the different trees and different geographic features. It brings to mind the trip I did several years ago, over the Christmas holidays. I wanted to take about an eight-day trip and I had a friend drop me off on one part of the Angelina National Forest and had arranged to be picked up about eight days later about 20 miles away with a backpack, and—we had just come through a pretty big cold snap so it was still getting down into the single digits at night—no, probably the teens at night, I should say, and I started out with about a gallon of water. And after the first day, I decided that, you know, I literally wanted to experience that landscape to the greatest degree possible, as I traversed this section of woods back to this other park. And so, I dumped out the last quart of my water and decided I was gonna drink spring water the rest of the time and so, that was an interesting ritual of each day, of finding the right spring and very carefully assessing it for animal burrows and any way that it might be contaminated and trying to make sure that it was truly coming out of the ground at that point and not coming out and then going under and then back out again several times where it could be contaminated so—for the whole of the eight days—for most of the eight days I drank spring water. The first six days, the weather was just beautiful and it warmed up a little bit and it was sunny and I just—just walked mile after mile and stayed off any rails or any roads and just basically crossed country through these woods and explored these beautiful stands, starting at a relatively high elevation in these dry upland longleaf areas and slowly working my way towards the Neches River Bottom. And on the sixth day, I camped at the river bottom next to this little creek, and—that was about six feet wide, and I ended up getting about six inches of rain that night. Rained all night long and the next morning it was still pouring down and pouring down, and this little creek that I ultimately needed to cross to get to where I was gonna be picked up in two days turned from six feet wide to 30 foot wide, a literal...

[Tape 2, Side B.]

LS: ...a literal raging whitewater torrent. There were whole 50-foot log sections which were floating down this creek. And I was cut off from this and it was wintertime and I was worried about hypothermia and—so I debated what to do and finally decided about eight o'clock that next morning as it was pouring down rain that I was just gonna go—I didn't want to sit there for a whole day in the tent and—hiked up that creek for about two miles, and there was a camp ground up there. I knew that there was a bridge across that creek at the campground so—hiked a couple of miles up there and of course all the side branches were swollen and I had to meander all around and-well, you know, by that time I was wading up to my knees and, you know, walking through this torrential downpour and—I had collected some rain water in my pot that morning and so I filled my canteens with that rain water and—so finally after a couple of hours I got up to this campground and-there was a little pavilion there with a fire and so I got there and ate some lunch, you know, and got some water from the tap at the campground and of course it tasted like rust and it was the worst water I've had in six days and it came out of the tap so—finally after I ate lunch. I sat there and said, "Well, I'm certainly not just gonna sit around this place," and so I just headed back off and—was following a certain path to cross this—there was a large creek called Big Creek, and I was trying to get across a bridge—I know where a bridge was there and—so I ended up having to go through this huge clear-cut area on private land and these briars and it was terrible and I was carrying an 80-pound sopping wet pack. And after about an hour and a half of this—of bushwhacking this clear-cut, I get to the creek, and it's

a hundred yards wide and flooded. And I was so frustrated I said, "Forget it." I just started walking right out in the water. 'Course you couldn't see the bridge at all. And I got about 20 feet into the water and it was already knee-deep and I said—turned around, all the way back through the clear-cut, five miles back around. I actually—that was the only time I walked on the road, and all the creeks were flooded and I was walking up through my—thigh-deep, you know. Ended up covering about 11 miles that day and finally got to the rendezvous point, and spent the night there as a big—about the time I got into my tent and my sleeping bag a big cold front came through and it really—the temperature really started dropping. So I was picked up the next day but that sixth and seventh day was pretty—pretty challenging experience.

DT: Yeah. Well, I see we're running short on time so I should probably ask one more question and I just ask if you have any general views I guess about the challenges that you see coming down the pipe, for conservation.

LS: Well, there will certainly always be challenges. I guess any notion that we're gonna ultimately win the war is certainly very far into the future, and—it just takes continual diligence to fight the battles because they will continually come along but—if you're going to keep fighting, you certainly have to take some time off and enjoy what you're fighting for, and enjoy the fruits of your labors, you know, and spend time in those protected areas, as well. It kind of recharges the old batteries. but—I think what's important for me is to look out for what's in your own back yard. I think there's a lot of people who just don't know what's out the door but if everybody tried to take care of what's in their own back yard, then everything would get taken care of, so...

DT: Do you have a back yard or a special area that you like to visit?

LS: Well, I certainly have a back yard. I live on an area that's in a creek bottom. It's currently a—I guess you would say a wildlife refuge of sorts. It's about—I don't know, about 30 acres and adjacent to me is an area owned by a preservation group. They own about 50 acres, so we combined have about 80 acres that's managed for wildlife and conservation purposes and the trees will never be cut there. We have a wide range of habitat that's really pretty exceptional for 80 acres with everything from dry, dry sand hills with pine all the way through swamps and creeks and bogs and creek bottoms so it's a very diverse area and—I feel real good about having put it on the map, so to speak, knowing it'll always be there. DT: Well, I wanted to thank you for putting on the map a lot of these places that you've seen and helped protect, and thanks very much for your time today.

LS: Great, great. I've enjoyed it.

DT: Good.

End of reel 1015

End of the interview with Larry Shelton