A Natural History of the Pineywoods (Part 2): Settlers, Steamboats and Market Hunting, with Jim Neal (Ep. 25)

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Nivien Saleh: How did the transition from native Americans to Anglo Americans shape the Pineywoods?

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Nivien Saleh: I'm Nivien Saleh, with Houston and Nature. In the last episode my guest Jim Neal – a career conservationist who lives in the Pineywoods city of Nacogdoches and who is currently writing a book on the West Gulf Coastal Plain – gave us a tour of the Pineywoods, a forested region to the northeast of Houston where pines are plentiful. As you may recall, the Pineywoods is part of the much larger West Gulf Coastal Plain, which extends from the Mississippi Alluvial Valley into the Lower Rio Grande Valley.

Jim introduced us to the physical features of the region. Then we traveled 2.6 million years back in time, to the Pleistocene, when much of North America was covered in ice. The ice shield never reached the West Gulf Coastal Plain. But the region did experience ice age impacts, because meltwaters from northern glaciers brought sediments that helped build out the coast.

By the end of the Pleistocene, about 13,000 years ago, two things happened: the first humans arrived on the scene, and the megafauna – think mammoths, lions, saber-tooth tigers – became extinct. It is not entirely clear if those animal species were simply overhunted or died out for other reasons.

The first humans, also known as "Paleo-Indians," were largely hunter gatherers. Around 11,000 years ago, their place was taken by a more settled group of humans, called "the archaic people." They lived in the region for about 8,000 years and produced early clay pottery.

About 3,500 years after the archaic people - from 800 CE to 1680 CE - the region was home to the Caddo culture, which featured complex settlements, sophisticated pottery, and trade with other civilizations.

The First Europeans come into the Pineywoods

And then the Europeans came.

Nivien Saleh: Let's take a look at the Europeans. When would you say they arrived in numbers that made a difference to the ecology of the Pineywoods?

Jim Neal: I'll just step back a second and give a really brief history. Pineda was the first person that arrived on the coast. And then we had the DeSoto expedition that started out in Florida and went all the way across the Southeast and eventually ended up in the West Gulf Coastal Plain.

Those are both Spanish and happened between, say 1515 and 1525. So we had that brief period of time where the Spanish made an attempt at doing things in the West Gulf Coastal Plain, but it didn't last long. And then we really didn't have any Europeans again until the 1680s and 1690s when the Frenchman Lassalle came into the area.

But those were still fairly minor incursions into the West Gulf Coastal Plain. Few people, only there for a very short time, didn't have any direct impacts on the West Gulf Coastal Plain, but they certainly did have indirect impacts through the introduction of disease to the native Americans. That eventually then decimated the American Indian populations. And even though there was a very short period of time that they were there in the 1500s, there may have already been diseases that had reached the native American populations from Mexico.

Because it looks like there were early plagues in the early 1500s, maybe even before there was direct contact, transferred as a result of trade from Mexico.

Nivien Saleh: Interesting. So there was this indirect impact. And when did the direct interaction begin?

Jim Neal: There was a settlement in Arkansas called the Arkansas Post. That was pretty early. It was over on the Mississippi, pretty far away from our area. Then the first permanent settlement was in Natchitoches, Louisiana.

Then there were some other settlements in Western Louisiana followed shortly by some in Eastern Texas.

The Pineywoods town of Nacogdoches is older than San Antonio

Nivien Saleh: Especially Nacogdoches, right?

Well, you can say the first settlement in Texas was in Nacogdoches.

Jim Neal: There's some debate about that.

Nivien Saleh: Oh.

Jim Neal: There's some question what the exact settlement date was. Well before there was a quote-unquote "settled town", there were Caddoan villages in what now is downtown Nacogdoches. Nacogdoches bills itself as the oldest town in Texas, but there are other towns, south and west, that debate that.

Nivien Saleh: I think it bills itself as having had a mission one year before the mission at the Alamo was built.

The Spaniards don’t like the Pineywoods

Jim Neal: It does predate the Alamo and San Antonio. The major development in Texas from the Spaniards was at San Antonio. The Spaniards really never liked the idea of settling in the woods. They were not comfortable with that. They felt much more at home in Mexico and in places like San Antonio than they ever did in the woods of Eastern Texas.

Nivien Saleh: Why do you think that is? Do you think that has something to do with the, the, the way the countryside looks in Spain?

Jim Neal: I assume so. I assume that's the case. It's more what the Spanish felt at home with.

Nivien Saleh: I had not been aware that they didn't like woody areas so much. I find that really interesting. So the Spanish had an indirect impact on the native Americans in the East Texas West Gulf Coastal Plain area. Then they had a direct impact because they started to compete for land. How did that affect the Caddo?

Jim Neal: You know, the first real supposed settlement in the West Gulf Coastal Plain was Natchitoches. That was a French settlement. As we just talked about, the Spanish really weren't comfortable in the forest. So a lot of the early settlement by the Spanish was to try

to counter the French influence. And it was spotty.

After the Louisiana purchase at once the French were really no longer an active participant in the area. And the Spanish tried to pull back. They started forcefully moving settlers from Western Louisiana and Eastern Texas to San Antonio, not really wanting to do anything with the area.

Really for quite a while until the 1800s, there wasn't a whole lot of development going on in the area. It was pretty static. There were a number of reasons for that. Outside of a couple of trails, there was really no way to move into the West Gulf Coastal Plain. The "El Camino Real de los Tejas", the Kings highway or the Old Spanish Trail, which went from Natchitoches all the way to Mexico City, was one of the few principal routes.

And even though it had been used by Native Americans long before the Spanish used it, it was a pretty crude way to travel. It was just a dirt road, and in winter and during rainy periods a large portion of it may have been impassable.

Nivien Saleh: Ah.

Jim Neal: That really cut down on people coming in from the outside. A whole lot of the settlement didn't start into the 1820s or so. Houston, for instance, was not organized until 1845.

And you had Oklahoma up at the edge of our area, which was Indian land. It was not settled until the 1900s. Things were slow to get started.

The Caddo leave the Pineywoods

Nivien Saleh: And yet, in the late 1800s, there was movement among the various Caddo tribes.

Jim Neal: The Caddos had already suffered tremendously from indirect impacts by the time European settlers really started to pour into the area in the 1820s to 1850s. Their numbers were down tremendously.

Nivien Saleh: That is perhaps why various Caddo tribes at the end of the 18th century consolidated.

Jim Neal: Yeah, I think that's probably true. Yeah.

Nivien Saleh: So we are moving out of the 18th century into the early 19th century. That's when the Caddo start moving west. And ultimately they end up somewhere entirely different, which is Oklahoma.

Jim Neal: Yeah. Right.

Nivien Saleh: So what happened is, and I got all of this from your wonderful chapter, in 1855, I think it's because of the U.S. Government perhaps, the various Caddo groupings are forced to the Brazos reserve in Texas west of Fort Worth.

Jim Neal: The Caddos were under pressure from both European settlers and from some other native American tribes. By the 1840s, 1850s, there was this huge push. Basically European settlers decided we need the land, and we need to get rid of the native Americans. As the Caddos continued to decline and started movements, then other tribes came into the region for short periods of time. There were wave after wave of different tribes. The Choctaws were in Eastern Texas for a while. The Cherokee came through.

Nivien Saleh: And then during the Civil War the Caddo remnants relocate to Kansas. And finally they arrived in Oklahoma.

Jim Neal: Yeah. Which is where their reservation is today.

Nivien Saleh: And today, the Caddo are a federally recognized tribe. But this community that now lives in Binger, Oklahoma, used to live in the Pineywoods and in parts of Louisiana and Arkansas. So big movement.

Jim Neal: And we now have the Alabama and Coushatta Indians in Eastern Texas. When the Europeans started pushing the tribes West, they ended up in Eastern Texas and managed to stay here. Their reservation is around the Livingston Woodville area. Like Lake Livingston. They're a little bit farther east, closer to Woodville. And there's a smaller town called Big Sandy. And that's where the Alabama-Coushatta Reservation is today.

What impact did the replacement of the Caddo have on the ecology of the Pineywoods?

Nivien Saleh: Hmm. I did not know that. Thank you. Thank you.

So in 1821 Spain loses control over the area when the Mexican Revolution happens and Mexico becomes independent. Then Mexico loses control over the area when Texas becomes independent, and in 1845 Texas joins the United States.

So the United States is now the big power in control.

Jim Neal: Right. Then we start to get more and more settlers coming in. And besides the road network get better. In the northern portion of the area there was a national highway that came into Arkansas and then edged into Texas.

Nivien Saleh: The departure of the Caddo must have had an impact on the ecology, because the Europeans did not rely on fire the way the native Americans did.

Jim Neal: They weren't as used to it. Early Europeans weren't as familiar with the use of fire. And they had other means. They had some crude machinery that allowed them to, for instance, cut trees, hand saws and stuff like that.

They had hoes and plows, and of course they had beasts of burden too. And they also brought with them slaves. That made a huge difference in conjunction with the introduction of cotton.

Those were major events.

Nivien Saleh: But didn't those slave owners tend to move towards the Brazos rather than East Texas?

Jim Neal: They were in the larger river systems, but that also of course included the Trinity, which is still part of the West Gulf Coastal Plain. But yes, ecologically the West Gulf Coastal Plain got a break, because the smaller river systems were not as amenable to large scale agriculture as the Mississippi was.

And so it never was to the extent that you would see on the Mississippi and some other major rivers.

Nivien Saleh: And that's perhaps why you write that with the departure of the Caddo and with the more limited use of fire afterwards, there was a rebound of forests in those areas that were not right away so interesting to the Western settlers.

Jim Neal: Yes. One of the neater plant communities in wetlands and bottomlands are the cane breaks. Cane breaks are a giant bamboo grass in areas of disturbance in the forested bottoms.

It's pretty clear that native Americans did encourage cane breaks. They used cane for construction materials. It was certainly easier to cut down cane than it was to cut down big

trees. Once the native Americans were not there to run some fires into these areas and promote the cane breaks, the cane breaks started to go away too. Not completely, but they were probably much less prominent than they were earlier.

Nivien Saleh: If one wanted to see a cane break, where would you send them?

Jim Neal: Some of the best cane breaks that I know of are found at the Trinity River National Wildlife Refuge. For listeners who are close to Houston, it's just a hop, skip, and a jump.

Towns are built, Anglo settlers arrive with slaves, and steamboats become common

Nivien Saleh: Thank you, thank you.

So the Caddo leave, use of fire grows limited, cane breaks disappear, forests grow damper. And then there's a big political transition, because Spain relinquishes control of Texas to Mexico in 1821. And around the same time, a little bit later, you have some cities that start to emerge at the edge of the West Gulf Coastal Plain. There's Beaumont in 1835, Houston in 1836, and then Dallas in 1841. In addition, you have an influx of Anglo settlers and their African slaves and steamboats.

Now steamboats are an important part of the economy around 1840 onwards. Tell me about steamboats.

Jim Neal: 1840 to about the 1880s steamboats provided Europeans a way to very much penetrate these areas that they hadn't really been able to get into before because of poor transportation options.

Nivien Saleh: Before they were limited to horses. And now they could use boats to navigate along the rivers.

Jim Neal: Yes. And of course, the smaller streams were not navigable by steamboats. But larger bodies of water were. The first steamboats in the Southern portion of our area were along the Mississippi.

But they expanded from there into the Red, and then to the Ouachita Rivers and then even some of the small rivers in Texas: the Sabine, Angelina, and the Neches. All had some steamboat travel by the 1830s to the 1850s.

Nivien Saleh: I think one of the rivers that became accessible by steamboat is our very own Buffalo Bayou.

Jim Neal: Yes. It was one of the early ones that became accessible. Yes, very much so.

A new, intensive model of agriculture

Nivien Saleh: With the steamboats and with the influx of the Western settlers and their slaves, you have an entirely different model of agriculture than used to be practiced under the Caddo. It was a lot more intensive and focused on specific crops.

Jim Neal: And the biggie was cotton. Our rivers were smaller and not as conducive to as much cotton agriculture as some of the other larger rivers. Nonetheless there were a whole bunch of things that came together: the steamboats, which allowed access to some of these areas and the invention of the cotton gin, which facilitated the production of cotton. And slavery.

Nivien Saleh: Yeah.

There are crops that require chill hours, like apples, which I love so much, which I can't grow here and, you know, cherries and all kinds of other delicious fruits. They require chill hours. So you can't grow them here, but cotton requires the opposite, right? Hot summers...

Jim Neal: It was the perfect crop for the south.

Nivien Saleh: And then cotton was joined by rice and soybeans. So these are the three things that we have. The trading of these crops occurred by steamboats for a while until the 1880s. And then we get another big shift.

Jim Neal: The steamboats had exploited pretty much all of the area they could get to. And then in the 1880s we got the railroads. The railroads started coming first into New Orleans and then into Arkansas, before we finally got railroads into the Pineywoods.

Market hunting decimates the passenger pigeon

Nivien Saleh: And you write about something interesting, which is called market hunting. So apparently, correct me if I'm wrong, the railroad tracks that were laid were fairly flexible. So there is the big railroad, which is hard to put down, and that's the major artery of train traffic and trade. But then there are smaller railroads that are pretty flexible and can be

joined to these large arteries. And so you would build these smaller railroads, and hunters would go into various areas and engage in speedy hunting expeditions and hunt massive amounts of wildlife, put it on the train and then very quickly sell it before the meat would spoil.

Jim Neal: The primary cause of the extinction of the passenger pigeon was market hunting. Passenger pigeons roosted in huge flocks. A lot of the history of market hunting of passenger pigeons that you read about is from the Ohio River Valley, but it occurred in Texas, too.

The passenger pigeon may have been the most numerous large organism on the face of the Earth. Flocks would cloud the skies for miles and miles and take hours to traverse through an area. They were that numerous in the mid-1800s, even into the latter part of the 1800s. And by 1912 they were gone.

They're gone. Completely gone.

It was market hunting and habitat destruction by man of the great Eastern Deciduous Forest that caused the demise of the passenger pigeon.

Railroads come to the Pineywoods and so do loggers

Nivien Saleh: The railroads impacted the ecology in east Texas through market hunting. But they also impacted it greatly by enabling the timber barons.

Jim Neal: There was a tremendous impact from steamboats and later trains around and adjacent to navigable rivers. One of the things that started happening was timber was harvested along the rivers and rails. They cut timber to feed the fires that ran the steam boats and ran the trains.

Nivien Saleh: Hmm.

Jim Neal: Yeah. But back to your original statement. Steamboats came at an opportune time when cotton was coming on the scene, and they were the perfect vehicle for getting cotton from where it was growing to the market.

This also became the case with trains when they started coming on the scene in the 1880s. The timber market was forest products companies and timber producers. It's a long series of cut-and-then-get-out.

About the time that the railroad started reaching the edge of the West Gulf Coastal Plain was the time that the timber had been logged out in the Midwest. And the timber producers were looking for where's the next place. It turns out that it was the Southeastern U.S.. So it was a perfect time, and trains were a perfect vehicle for being able to exploit timber markets.

As you've already mentioned, there were main lines, and there were a bunch of small fly-by-night operations that developed a railroad, and sometimes they'd go bust, and sometimes, you know, they'd be successful for a few years.

But early on, there was a lot of that. There were short main lines, but then connecting to these into the forest were these short, what they call tram rails - very short areas where they'd lay rail into the forest, cut an area and then leave, They were adept at doing that. take the rails, go to the next place.

And rail was very conducive to exploiting timber resources.

Deforestation in the Pineywoods

Nivien Saleh: How did that affect the Pineywoods?

Jim Neal: That's where we really had a huge deforestation of much of the Pineywoods. Same thing happened here that happened throughout the West and throughout the Northern Midwest and through the easternmost portions of the South. The timber barons would come in, get all the timber that was worth harvesting, and then they'd move to the next market.

Of course, were pretty much at the end. There was nothing west of us. So they moved into the Northwest and some of the Rocky Mountain states.

Nivien Saleh: That's so interesting, you know, the way they thought about our natural resources, that they could just sweep in, cut it all down and move on.

Jim Neal: Yeah. And I talk a little bit about some of the towns that sprung up. Mills would be built in an area where there were a lot of timber resources. They would log out the area and then pretty much abandon it and move someplace else.

And so there were towns that were made by timber companies and then destroyed, and then basically forgotten by the timber companies.

Nivien Saleh: So you can go in the Pineywoods now and find ghost towns?

Jim Neal: Pretty close to ghost towns. Towns that were several thousand people. You go to these places now, and the residents number in the hundreds. You would never really know that there was a significant town there.

Nivien Saleh: Ah, would you say that the Pineywoods has recovered from that?

Has the Pineywoods recovered?

Jim Neal: Has the Pineywoods recovered?

Yeah, it has in a sense. We don't have the great virgin longleaf forest that we once had, but it has recovered. It was heavily logged over, and we had huge areas that were basically deforested by the 1830s. But then there was a sense of conservation that came about in Texas, Louisiana, Arkansas, and Oklahoma.

People realized that we needed to restore the forest. And so that happened. The National Forest that we now have in most of this four state area happened after the forests were cut. You go to the National Forest in Texas, Louisiana, Oklahoma and Arkansas today, and you find some really nice forested areas that have regrown since the 1930s.

Nivien Saleh: That is really good to hear. You hear so often of all the things that we're doing wrong, and it seems that we are doing some things right once in a while, too.

Jim Neal: The National Forest system was a great idea. You can quibble over some of the management, but most of the forest that we now have and a whole lot of the older forest that we now have in Eastern Texas are a result of the National Forest.

How has your view of the region changed?

Nivien Saleh: Hmm. Now, Jim, we just talked about one chapter in your book. It is clear to me that you did a tremendous amount of research just for this chapter. How has the research that you did on Eastern Texas and the things that you've found in the process affected you and shaped your way of thinking about that region?

Jim Neal: Quite a bit. I'm a biologist by training, and a lot of my career has been spent here. Anybody with any curiosity can't help but learn over the years. Some of that's accumulated knowledge. But some of the stuff that I've learned since I started working on the book,

especially some of the non-biological stuff, has been really eye-opening.

I didn't know a whole lot about the native Americans. I was somewhat familiar, but didn't know the whole story. I still don't. That's been one of the eye-opening things. Like the black drink that ends the chapter that we have mostly been talking about.

The black drink was a drink that native Americans used. And then settlers discovered it. It's based on the shrubby tree that we have, called yaupon. It's a native species, but in areas where it's not controlled either through fire or through clearing it can really take over an area.

So a lot of people view it with disdain. But it turns out that the black drink was yaupon. It was ground up yaupon and another similar holly species called dahoon. It turns out that those two holly species are really the only native species that we have in North America that are caffeinated.

Caffeine is one of the things that we find most appealing in our lives. And native Americans were on top of this through the discovery of the black drink.

Nivien Saleh: Have you drunk some of the black drink yourself?

Jim Neal: I have not. I did buy from a supplier some ground-up yaupon, and I do intend to make tea out of it.

Nivien Saleh: I've heard that yaupon is a tea that you can drink and it's caffeinated. I've never tried it .

Jim Neal: Well, I have some, and I will try it.

Nivien Saleh: Yes, you, you definitely should. You know, you should drink a cup to congratulate yourself for having written such a good chapter. You described such a rich history here. If somebody would like to learn more about the Pineywoods, where would you say they go to get a little bit of the mystique or the history, or perhaps the ecology?

Jim Neal: I would send them up to some of the older settlements: the Natchitoches, the Nacogdoches, the San Augustines of the world. Travel up, and spend a little time in those towns. And you get some of the flavor of at least the old Anglo days.

And then visit Caddoan Mounds State Historic Site outside of Alto, which is a site of several large Caddoan mounds. Visit some of those areas. There are some great books on both the historical aspects and the archeological aspects of the Pineywoods. Get yourself a good

book, read it. I've spent a lot of time doing that. Cause, as I've said, I'm not an archeologist, I'm also not a historian. If I make some mistakes in this interview, please forgive me.

Nivien Saleh: You are totally forgiven. I'm so grateful for your willingness to share some of your knowledge. Thank you, Jim Neil.

Jim Neal: Yes.

Thank you. I appreciate you taking the time to talk about the book.

Nivien Saleh: We have arrived at the end of our trip through the Pineywoods, and I hope you enjoyed it. To see the transcript and other episode resources, visit the episode web page at https://HoustonNature.com/25. That's HoustonNature.com, a slash, and the number 25 for episode 25. There you can also sign up for my Nature Memo so you get an email whenever a new episode comes out.

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For Houston and Nature, I'm Nivien Saleh.