My Time at Texas Parks and Wildlife in Houston, with Ted Hollingsworth (Ep. 17)

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Nivien Saleh: In the city, can fire be a tool for weed control?

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Nivien Saleh: I'm Nivien Saleh with Houston and Nature.

If you live in Texas and care for the outdoors, the Texas Parks and Wildlife Department - an agency of the State - is your friend. It issues hunting and fishing licenses, educates the public about wildlife, and promotes the conservation of habitats. In Houston, the Department maintains a number of sites - the most famous being the San Jacinto Battleground, where the Texians, in 1836, won their victory over the Mexican Army.

Today's guest is Ted Hollingsworth. He has worked for the Department for close to thirty years. Ted got his start in Houston, and he has quite a few stories to tell - about San Jacinto, controlled burns, and the re-emergence of an ancient prairie.

There are two things I'd like you to know. Number one, I recorded the interview at Ted's home in a small town in Bastrop county 45 minutes east of Austin. That's important to know because in the fall of 2011, Bastrop county experienced the largest wildfire in Texas history, which destroyed over 1,600 homes. And of course, it shapes the way Ted Hollingsworth thinks of wildfires and controlled burns.

Number two, this episode is the first of a three-part interview. While this episode is about Houston and burns episodes 18 and 19 will focus on the important work that the agency does all over the State of Texas.

Welcome to Houston and Nature, Ted. So nice to have you.

Ted Hollingsworth: It is an honor to be here this morning, Nivien.

History of Texas Parks and Wildlife in Houston

Nivien Saleh: How has Texas Parks and Wildlife provided parks and wildlife for the greater Houston area?

Ted Hollingsworth: Well, it's been quite an evolution. We started out as the Oyster Commission and the Game and Oyster and the Fish and Oyster. So over the years, the

mission has kind of evolved. Starting in the late 1920s, early 1930s, folks began to donate properties that would become state parks.

The Civilian Conservation Corps was formed in the early 1930s to help the country recover from the Great Depression. And probably our first flush of state parks was created in the 1930s. Finally in 1963, those fish and wildlife functions and those outdoor recreation functions were all brought together in one department, which we now know as the Texas Parks and Wildlife Department.

So to a large extent, our mission has always been to provide outdoor recreation opportunities and good stewardship for the fish and wildlife and cultural resources of the state across the state. How we've done this: To a large extent, we've been opportunists. Somebody donated a large ranch or a large piece of property.

Remarkable Parks in the Houston area

Somebody's made funding available for a certain opportunity. Or a particularly amazing resource like Enchanted Rock has become available. And so we've taken advantage of that opportunity. Having said that, there've been some tremendous opportunities in the Houston area.

San Jacinto comes to mind - arguably the most sacred ground in the State of Texas from the standpoint of our history and culture. Brazos Bend is one of our most remarkable state parks because it is so close to Houston, and yet it is so wild, just for want of a better word.

Brazos Bend State Park

When I was in the La Porte office, people would frequently call, and they would say, "Don't really know anything about state parks, I'm new to the area. What do you suggest?" And I would say, "Do you have children?" And they would say, "Yeah, I've got three little boys." And I would say, "Would they like to see an alligator?"

And of course the answer is "Yes! Where can I go to see an alligator?" "Go to Brazos Bend." I defy anybody to go to Brazos Bend and not see an allocator.

Sheldon Lake State Park

And we've got Sheldon Lake State Park, which is an underappreciated gem. It was a reservoir that was created early into World War II to provide water for war industries that were anticipated to be needed in the east Houston area.

After the war Lake Houston was constructed, and canals were constructed to take a more dependable supply of water to those industries. And Sheldon Lake was no longer needed for the purpose for which it was constructed. It was transferred to the State, became a wildlife management area and then became a park.

It was a fish hatchery for a number of years. So there are a lot of ponds. There are trails, there were buildings there. And what we began to realize probably starting 30 years ago, but really began to understand probably 20 years ago is that we were losing our urban audiences. Urban audiences were becoming so much more oriented towards the television, the computer and ultimately the smartphone that they were having less and less contact with the outdoors. Sheldon - being right on the outskirts of Houston - seemed like an ideal place to create that environment where it's easy to get school buses, it's easy to get children, it's easy to get families. You can put them on trails that feel safe, and yet they can see an alligator. They can see a snake, they can go fishing. Thousands and thousands of Houstonians have gone fishing for the first time at Sheldon Lake State Park. And sometimes catching that first fish is that spark that breaks down that barrier that's been built up by a life of television or billboards or the smartphone.

Galveston Island State Park

And then we've got, of course, Stephen F. Austin State Park just a little ways west of Houston.

We've got Galveston Island State Park, of course, which is right on the Gulf. But one of the nice things about that park is that through our relationship with the General Land Office we were able to shut that beach off to vehicular traffic. It's not uncommon for us to get a call from someone who says, "I really want to go to the beach with my little girl, but my little girl is four years old. I don't want her getting run over by a car. And the beaches in Texas are open, there's cars, and there's Jeeps, trucks, motorcycles". "Galveston Island State Park. We've got three miles of beach there, two miles of beach. I don't remember exactly how much, but no cars, no traffic. So you and your little girl can splash in the water and run in and out and chase coquinas - the little clams you can dig up - and not be competing with vehicular traffic." So we do offer those state park services to Houstonites.

Evaluating the gaps in the Houston-Dallas-Austin/San Antonio triangle

I will tell you that we are currently trying to be more systematic about evaluating where we have gaps in our opportunities for urbanites in particular. We will be taking a close look at the Houston area, the Dallas Fort Worth area, the Austin-San Antonio corridor, in an effort to make sure that everybody, regardless of their travel capacity, age, ability, understanding of the outdoors has access to those opportunities.

Attention to people with less income

Nivien Saleh: So that includes attention to people that don't have that much money because those areas where the less affluent live tend to have fewer amenities. That is something that you look at in particular?

Ted Hollingsworth: In particular, yes. And In fact, just in the last couple of years, we have begun mapping out where our parks are, where we consider those corresponding service

areas to be, and then overlaying those on demographics. With the very clear understanding that people can't afford the gasoline or the hunting and fishing licenses, or just don't really have the means to travel six hours, spend the night somewhere to go to a state park.

My goal is that everybody's going to be able to jump in a car and drive less than an hour and be in a state park. It's not that there's any problem with green spaces, greenways and county parks. But the state parks are all many hundreds of acres or thousands of acres. And so you have the opportunity for a more immersive experience than you do in a 20-acre city park that's got some grass that maybe has ball courts. Those are all great amenities for urbanites. Don't get me wrong. But if you want to see an alligator or if you want to take a pair of binoculars and see 20 or 30 species of birds during the course of an afternoon, then you really do want these less developed, larger open spaces.

That's what we really are determined that every Texan is going to have ready access to.

How did you come to be at Texas Parks and Wildlife in Houston?

Nivien Saleh: That sounds great. I love it. You were born in Houston and later you worked for Texas Parks and Wildlife in the Houston area. What was the time period when you were stationed there?

Ted Hollingsworth: I was born in Pasadena on the east side of Houston. My dad was career Air Force, so I moved around a lot in my youth. But always came back to La Porte because that's where my parents lived until they died in the 1980s. I got two degrees in wildlife science from Texas A&M University in College Station.

I did not immediately go to work for the Texas Parks and Wildlife Department. I went to work for some private sector, nonprofit organizations. I directed a couple of small museums, and a historic site in Fredericksburg when an archeologist I had hired told me about openings at the Department.

The Department was looking for folks who had strong backgrounds in both natural resource management and in cultural resource management to watch over operations and developments in state parks to make sure that we operated those parks and developed those state parks in such a way as to maximize our stewardship of the underlying fish and wildlife resources and cultural resources, whether those are prehistoric archeological resources or historic structures.

Not just to comply with state and federal statute, but also to make sure that we stewarded those resources, which are really the foundation for our communication of the natural and cultural world to our visitors, in such a way that they will still be there 50 years from now.

So they were creating those positions. I hired on and ended up in the La Porte office.

Nivien Saleh: How many years were you there?

Ted Hollingsworth: I was there from 1993 until 2004 - 11 years.

What were the big experiences at the La Porte Office?

Nivien Saleh: What were the big experiences with the Department in that area?

Ted Hollingsworth: Well, I want to be careful how I say this. But the state parks are typically run by park superintendents who are very good at what they do: Working with people and visitors, making sure that the restrooms are clean, that the power works at the RV site.

And their hands are full with managing the administration of the park. So what I found when I got into some of the parks is that we had significant natural resources and in some cases cultural resources that hadn't necessarily been ignored, but the property may have previously been a cattle ranch. Or we may have had just an influx of invasive species that over time had overtaken large areas of prairie or large areas of marsh. And the park manager and the park rangers didn't have the resources and the expertise, and they were busy taking care of park visitors.

An opportunity to re-imagine Houston's natural resources

It was a wonderful opportunity to look at some of these resources and say, if we could just get a burn in here, if we could just spray this tallow one time to knock it down and re-establish some of the native species. If we could just take out this dam that somebody put in and restore the hydrology to what it was historically. In the case of San Jacinto, if we could go from mowing six times a year to mowing twice a year and see if the native grasses weren't all still there, just waiting for an opportunity to spring forth.

It was just delightful. And every park up and down the coast had those opportunities. And I was really blessed to be able to find some money here and there to implement some of these restoration programs. And in the course of doing that, then, there was this tremendous opportunity to educate the park staff and our visitors about what had been there and why it maybe didn't look exactly like it did historically, and what the advantages are, what the ecosystem service values are of returning those areas to what they were like historically.

Houston and burns in the 1990s: The San Jacinto Monument

Nivien Saleh: You just said, "Maybe we could do a controlled burn." I wonder how did that go over with folks back in the 1990s: Burns and Houston.

Ted Hollingsworth: In the Houston area in particular it was very challenging, San Jacinto being the classic example. At San Jacinto we were mowing six times a year. And when I say we were mowing, we were fortunate to have a contract with TxDOT through an MOA that we had with the Texas Department of Transportation. Their mowers came out and they mowed the whole park six times a year, looked like a golf course, looked like a very traditional park, was very unthreatening.

It looked reverent because it was so carefully manicured.

Nivien Saleh: I understand what you mean. Coming from Germany, I've seen many monuments in my youth where the figure that is been depicted is way up high. You have to look up and can barely see it. The grass is mowed and everything is kept tidy, so as not to distract you from looking at that figure up high. And there you were with respect to the San Jacinto Monument, and you wanted grass to grow.

Ted Hollingsworth: Yes. I'm glad you brought that up, Nivien, because there is still in a lot of people this sense - and I respect it fully because I grew up with it - that you show respect by keeping everything neat and manicured. By the time I got to San Jacinto, I had a different perspective, which was that you show respect by allowing people to see what those armies faced in 1836.

I had a lot of opposition when I did this, but I said, "Let's do this. Let's mow once in June, before the native tall grasses go to flower. We'll mow in June to control the Chinese tallow and the woody species that are trying to come up through the grass. And then we'll mow again in October and November after the grasses have seeded out. And let's just see if the prairie isn't still there under the grass." Much to everybody's delight and amazement, by the end of that first season, we had crops of Indian Grass, Little Bluestem, Big Bluestem.

Nivien Saleh: Wow

Ted Hollingsworth: I called my botanist and said, "I have Indian Grass at San Jacinto." He laughed at me and said, "I don't know what you're looking at, but it's not Indian Grass." And he came out over the weekend and looked. He called me up and said, Ted, you have Indian Grass!"

Nivien Saleh: What's so special about Indian Grass?

Ted Hollingsworth: The coastal tallgrass prairies of Texas were dominated by four native grasses: Little Bluestem, which to this day is the commonest of those native tall grasses.

The other three were Indian Grass, Switchgrass and Big Bluestem. All of those appeared at San Jacinto. They have disappeared from much of that landscape because first of all, when people brought in cattle, that was the first grasses that they ate. They're native grasses, they're high in protein, they taste good. But also, from a settler's perspective, they get to be

belly-deep or chest-deep. They carry fire. They hide snakes. Less than 1% of that original coastal tallgrass prairie is intact really by any measure of the word.

So when we had the prairie spring right back at San Jacinto ...

Hate mail for letting the grass grow at San Jacinto

Nivien Saleh: It's almost a miracle. Huh?

Ted Hollingsworth: It's almost a miracle. But the really fascinating thing was: For the first couple of years, I got hate mail. I got hate mail from people who said, "I understand you're responsible for the fact that this place looks like it's neglected and has gone completely to weed and no longer respects the honor of the Texian shoulders that saved our nation."

Just hate mail. Then over time I got less hate mail and I got more mail from people saying, "This is remarkable. I would have never guessed that there was a mature, healthy, diverse native prairie surrounded by the industries of La Porte, Deer Park, Baytown. Whatever you did, congratulations!"

Mowing at San Jacinto wasn't enough. Would burns be an option?

It's very fascinating that social dynamic that goes along. And where I was going with this is that after a few years, even on that mowing schedule, we began to get McCartney Rose. We began to get some other invasive species that really could not be completely controlled by the shredding, by the mechanical means.

And we wanted to start implementing fire because we knew that fire would in fact be the best tool to maintain that historic natural balance. We have the Houston Ship Channel basically on three sides.

Obviously you can't have smoke drifting across lanes of traffic where you have tankers trying to negotiate a narrow channel. You just can't have that. So I began working with TCEQ. TCEQ had some special requirements because we were in an urban area,

Nivien Saleh: TCEQ is the Texas Commission ...

Ted Hollingsworth: ... for Environmental Quality. Yes. TCEQ and their federal counterpart the EPA had jurisdiction because we were in Harris County, an urbanized, highly urbanized county.

Controlled burns at San Jacinto happen after 2004

So by the time I left in 2004, I still had not managed to get permission to burn. The gentleman who followed me, who's an outstanding ecologist, Andy Sipocz, ultimately was able to get those permits in place and burn. He has been good enough to send me before and after pictures of some of those prairies that had been burned. And the fire has truly been that disturbance regime that was missing.

It doesn't instantly kill every Chinese Tallow and every McCartney Rose. But it certainly stunts them, knocks them back, puts them at a disadvantage, returns a lot of carbon and potassium to the soil. And the native tall grasses bounce back stronger and denser than ever because that's the regime that they survived for millennia before we came along.

Tallgrass prairie allows monument visitors to understand what 1836 looked like

Nivien Saleh: It's important to have the tallgrass prairie specifically around the San Jacinto Monument so that you can see what conditions the Texians faced back in the day, because the tallgrass prairie, I think, was one of the reasons why they did well in their fight against the Mexican army. Correct?

Ted Hollingsworth: Of course, we'll never really know exactly what elements contributed in what ways to the outcome of the battle. But certainly as you stand in the area of the Texian camp and look across that prairie to where the Mexican camp was, if it looks like a golf course, it's much more difficult to visualize what the armies were up against than when you see that waist deep grass. At San Jacinto Monument we have yet another challenge, which is that for the Centennial in 1936, we built the monument. But more than that, there was a ravine in the middle of that prairie that we filled in so that we could put a reflection pool there, which was considered to be a very high form of monumentation and recognition.

You can stand at one end when it's calm, and you can see that monument reflected in that reflection pool. I understand that desire to commemorate that battleground. And maybe someday we'll be able to restore some of those contours. But it was the combination of those contours and that tall grass that enabled the Texian army to slip down into that low area and come out of that low area on top of the Mexican camp.

It was Sam Houston's decision to wait until the middle of the afternoon when no person in their right mind starts a fight. And when it looks like a golf course, it's just that much harder for someone to visualize what happened April 22nd, 1836.

The burn in Bastrop and why burns are not created equal

Nivien Saleh: Thank you very much for clarifying. We're in the Bastrop area where you have your home. In 2011, a wildfire destroyed a lot of the woods in the area. Yesterday I asked

you: " There was a burn in 2011. Isn't that great because now all the native vegetation can come back stronger and better?"

And you told me "No. There was so much brush that had accumulated in the area that made the fire burn a lot stronger and hotter than the fires that would have burned in the past when you had frequent wildfires. As a result, the fires were hot. That then sterilized the earth. And very little is coming back. On the other hand, there were some areas in the Bastrop region where controlled burns had been conducted. And as a result, the brush was gone. And when the big fire came through, it didn't burn as strong, and the vegetation could come back. To me that means that there is a real art and a real science to burning in a way that preserves the environment.

Ted Hollingsworth: Fire is a tool, fire is not an end. It's actually a tool. The wonderful thing is it's been in place for millennia. And what we attempt to do is replicate the impacts that tool has on the habitats and on the ecosystems.

Since we weren't here or nobody was keeping good records 180 years ago, we don't know if fire occurred in any given ecosystem. In most cases, we don't know if it occurred every five years naturally or every 10 years or every 20 years. My own observation and understanding is that it was opportunistic, because fires were often started by what's called dry lightening that would strike ahead of fire coming. Or in some cases I've seen fronts come through that looked like they were just going to really produce rain. They produced lightening and no rain. I have literally been on the ground where I lived in Henley, Texas and watched lightning strike a Juniper thicket and start a fire, naturally start a fire.

So I suspect that actually, maybe you'd have a fire this year, you'd maybe have a fire in two years and then maybe not have a fire for another 20 years. But what we've done is: In some places there's not been a fire in a century. So the ground cover and not just the ground cover, but the thatch - the carbon that's available for a fire - the loading of that fire and the distribution of that fire in the air column is very different than it was historically when a lot of this country was more savannah.

There were patches of grasses and openings. There weren't these dense yaupon thickets that covered acres or hundreds of acres because a fire came through every few years. So what we try to do is conduct a controlled burn, see what happens. People who have watched a lot of burns and have really made it their business to study this, will then say, "Let's burn this area again in five years. Let's burn this area again in 10 years. And then let's monitor that response. Let's see what's come back. Let's burn when it's this time of year. Let's burn after everything's gone to seed. We really are learning what to expect in response to a fire that burns in this humidity, in this temperature, at this time of year. And we're really getting a sense for how to best use that tool.

But to go back to Bastrop: What happened was exactly what we would have expected: In the area of the park where we had managed to get in and burn, especially where we'd managed

to get in and burn two or three times, we had less of the yaupon, less of the thatch, less of that dense layer of pine needles on the ground. Those areas sprung back naturally.

In fact, we had areas where even though it was a crown fire for the most part, a canopy fire, we had trees that survived, forbs, wildflowers, grasses that sprang right back. But in areas where we had just never been able to burn because of topography or access or neighbors, we had huge fuel loads. The fire was so hot that as you say, it sterilized the ground. The oak trees didn't come back because the fire had killed all the acorns in the ground. The pine trees didn't come back because all the pine seeds in the ground were incinerated. Had we not physically gone in and replanted those species ourselves, they would've been very slow to return. And the rains that we had after the fire then also began to wash away top soil. And so the quicker we can get in and reestablish that ground cover, the less likely are we to lose that foundation, that soil on which the forest depends.

Today, TPWD knows more about fire and burning than 30 years ago

We learned from every single fire, whether it's one we deliberately set or whether it's Bastrop wildfire that we would have never wanted. It helps us plan out that management plan that includes fire.

Nivien Saleh: So the Department knows a ton more about fire than maybe 30 years ago.

Ted Hollingsworth: Absolutely. In fact, we have a fire team. We have an expert who does nothing else but prepare burn plans, studies those habitats and ecosystems that we know had fire as a part of their dynamic historically.

He determines when the best times and conditions are for burning. He writes burn plans with those burn criteria and those burn schedules in them. He trains his staff. We have a significant cadre of park rangers, biologists and others who are now trained to safely conduct a burn.

In many places we have public relations campaigns with our neighbors and with our communities. Anytime we're going to burn at Bastrop State Park, for example I see a little notice in the local newspaper. There are signs out on the highway that say, "Please be advised. Texas Parks and Wildlife Department is going to conduct a controlled burn. Do not be concerned if you see smoke rising above the park on the following dates."

We're trying to make it less scary. Yeah.

Nivien Saleh: This is so important, isn't it?

Ted Hollingsworth: It's absolutely necessary. In a place like Bastrop State Park or Brazos Bend State Park or San Jacinto you could never burn without that public relations component and being very sensitive to the needs and the concerns of your neighbors.

Nivien Saleh: Thank you.

We have arrived at the end of this episode. You can find the transcript at https://HoustonNature.com/17. That's HoustonNature.com, a slash, and the number 17 for episode 17. In the next episode we will turn our attention to the statewide work of Texas Parks and Wildlife and find out what it takes to protect the state's wild animals. State tuned!

For Houston and Nature, I'm Nivien Saleh