

**TRANSCRIPT**

**INTERVIEWEE:** Art Morris

**INTERVIEWER:** David Todd

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**David Todd** [00:00:00] Good morning. I am David Todd and I have the privilege of being on the line with Art Morris. And with his permission, we plan on recording this interview for research and educational work on behalf of a non-profit group called the Conservation History Association of Texas, and for a book and a website for Texas A&M University Press, and finally, for an archive at the Briscoe Center for American History, which is based at the University of Texas at Austin.

**David Todd** [00:00:34] And I want to emphasize that he would have all rights to use the recording as he sees fit, too.

**David Todd** [00:00:42] And so, Mr. Morris, I wanted to make sure that's a good plan, in your view.

**Art Morris** [00:00:48] And good morning. Yeah, I appreciate the opportunity to participate. Yeah, it's all good.

**David Todd** [00:00:56] Great. Well, thank you. Well, let's. Let's get started, then.

**David Todd** [00:01:00] It is Friday, February 24th, 2023. It's about 10:15 a.m. Central Time.

**David Todd** [00:01:09] And as I said, my name is David Todd, and I am representing the Conservation History Association of Texas, and I'm here in Austin.

**David Todd** [00:01:20] We are fortunate to be conducting a remote audio interview with Art Morris, who is based in the Corpus Christi area in a community called Flower Bluff. Mr. Morris served as a fisheries biologist at Texas Parks and Wildlife's Coastal Fisheries Division for over 35 years. He worked with shrimp and crab and red drum and other finfish, both in the field and as a regulatory and policy liaison between the agency and sport and commercial fishermen.

**David Todd** [00:01:54] He has also been involved in outdoor writing and photography and artwork and has worked as a white-tailed deer hunting guide as well.

**David Todd** [00:02:05] So, today we'll be talking about Mr. Morris's life and career to date, and especially focus on his work with the Atlantic tarpon, including helping start and develop the Tarpon Observation Network and other projects.

**David Todd** [00:02:23] So we like to start these interviews by just asking about your childhood and early years, and if there might have been some people or events in your life that influenced your interest in animals and fish and perhaps tarpon in particular.

**Art Morris** [00:02:44] Cool. Yeah. Well, I grew up a half-breed Native American white boy in southeastern Oklahoma. We grew up with a rod in one hand and a gun in the other and went to a small school. And I guess one thing that got me focused at an early, early age was I was good at biology and science and outdoor stuff. And my high school coach, basketball coach / biology teacher saw that in me and offered, or showed, me a application to the University of Oklahoma Biological Station on Lake Texoma, and it was free.

**Art Morris** [00:03:36] And between my junior and senior years, in that summer of '77, I applied and was accepted to that program, and went down there and took a college-level, actually, graduate-level, class on reservoir fisheries biology from a guy named Dr. Clark Hubbs, who at the time (I had no clue who he was), but he was a, was a, turned out to be probably the most eminent biologist in the United States, if not the world. And his dad was before him. In fact, the Hubbs SeaWorld Aquarium in San Diego, that Hubbs is his dad. And so this guy knew his stuff. And anyway, I took that class, passed, surprisingly. And I also learned that there's money to be made by studying fish, playing with fish.

**Art Morris** [00:04:41] So, went back to high school, finished senior year, came back the next summer as a student at OU, University of Oklahoma, and I took the ichthyology from Hubbs again and another class called "Stream Ecology". And that really did it for me - those field classes, those 8-week classes over the summer were just, that was it. I was hooked.

**Art Morris** [00:05:06] And went to school at OU for a couple years. Ended up dropping out and anyway I got hired by Parks & Wildlife as a peon in Rockport in the Coastal Fisheries division. And finished up my degree when I was in my twenties down here A&M - Corpus Christi and eventually got promoted to the job that I retired at and spent half my career in the field, largely in Upper Laguna Madre, sampling and doing creel surveys and such. And then the second half, still in the same field station. I got promoted to the Fisheries Outreach Specialist, a program specialist that dealt with, at the time, was largely the shrimp buyback program, and soon the finfish and crab buyback programs, the limited entry programs.

**Art Morris** [00:06:02] And my immediate supervisor, being in Austin, I had a lot of rope to hang myself with. So, so I often went on tangents. And, tarpon being one of my favorite fish since childhood, it became one that I focused on for a couple of years there and created, we, we created the Texas Observation Network, as a user, volunteer-based program for tracking tarpon.

**David Todd** [00:06:37] Okay, well, we should get into that. There are a couple of things that, before we get too far down the road, I'd like to ask you about. And, just to go back a little bit to your childhood, was there anybody in your family or your circle of friends that enjoyed going out hunting or fishing? You said you grew up sort of with a rod in one hand and a gun in the other. Were you doing this mostly alone or did you have company?

**Art Morris** [00:07:11] Well, certainly my dad and my uncles and grandfathers ... they were the same way. You know, we lived out in the country. So, there wasn't a whole lot for a small boy to do other than go hunting and fishing, so and so the they they were, as soon as I was probably oh, probably 12 or 13 or so, I was, I was basically on my own at that point, turned loose and I went all over. We had permission to hunt on the neighbor's property and everything else, just that was hog heaven as a child. So it worked out pretty good.

**Art Morris** [00:07:54] And then, of course, for a professional career, like I said, that my high school basketball coach should really be thanked for me doing what I did, eventually doing. So it was all good.

**David Todd** [00:08:09] Well, so how do you think he was aware that you were interested in, you know, the outdoors? Was it through this science class that he was teaching?

**Art Morris** [00:08:20] Yeah, I was top of the class and I fished a lot and talked about it a lot, and he saw something there in me, and suggested that I do that. And it was free. I was 17 I guess - not much other else to do over the summer. My option was to go haul hay or, or go do this. So you know at least go spend the summer at Lake Texoma.

**Art Morris** [00:08:51] So, I got, you know, one of the guys I my age that I met down there ended up being roommates with at OU, and still a good friend. His dad was a premier herpetologist in the United States. He taught at O. And my buddy Jeff - he ended up getting his PhD in herpetology. But yeah, he was a big influence on me as well. So, me and him went herping and catching fish and doing everything else. We'd get out in the field whenever you know in our late teens and early twenties, that was, he was a mentor of sorts as well. Certainly, a partner in crime.

**David Todd** [00:09:40] Well, tell us, you know, what would have been a typical herp outing with your friend?

**David Todd** [00:09:48] Oh, we would go, largely we worked with grad students. They were collecting animals for their research. And so they'd need collared lizards. So we'd go chasing collared lizards all over the place. And so we'd, you know, noose lizards: basically, take a cane pole with a little tiny fine monofilament noose on the end and walk along trees and fences as such, and noose lizards. And stick our hands under rocks and stuff, turn rocks. We called it, herping, you know, flip rocks and logs over and see whatever we catch, and bring them back alive and spread them out amongst graduate kids. So it was a lot of fun.

**David Todd** [00:10:41] It sounds like it. Sounds like a fun hunt, like a safari in Oklahoma.

**Art Morris** [00:10:48] Yeah.

**David Todd** [00:10:50] Well, so here's another question for you. Some people, you know, they learn in the field or they learn from their friends. But then, there are others who have some, you know, favorite books or a TV show or, you know, a movie that was really influential. Was there, was there anything like that was sort of a part of the culture that you saw or read that might have inspired you?

**Art Morris** [00:11:21] Oh, certainly, the Jacques Cousteau stuff was big when I was a child. And, you know, I read, you know, all the, you know, Jack London books and read a lot of Outdoor Life and Field and Stream magazines. And I just, I was just into it, even at an early age. Didn't even know it. You know, it was all interesting to me and but then I wasn't old enough to snap that, yeah, I could, I could do this for a living, you know, all this stuff. And but, if I'd have did, fortunately, I guess for me, at an early age as opposed to some children today that it takes a while for them to find their path. I knew what my path was at the tender age of 17.

**David Todd** [00:12:16] Yeah, I guess it's they can simplify people's lives if you're able to know what your goal is and you can organize things around that.

**David Todd** [00:12:27] Well, tell me some more. You know, you started in the Coastal Fisheries Program with Texas Parks and Wildlife in 1980. How did you find them or how did they find you? Well, I applied for a peon job at the Rockport Marine Lab in the Coastal Fisheries Division, and I was hired sight-unseen by Tom Heffernan, who say, unfortunately he's not with us anymore. But he was an icon in coastal fisheries management and but he hired me and I had experience with nets and such. And, and, like I said, it was just a peon job, just a technician job. And he hired me out at Oklahoma and I came down here. My parents had retired to St. Charles Bay, so I stayed with them for a year or so and, you know, worked on that.

**Art Morris** [00:13:31] I didn't get paid a whole lot, but it was a lot of fun. Certainly what I wanted. I really enjoyed it. And back there, you know, we had a tagged, trout tagging project. What we did was rod-and-reel trout tag and release. So, I'm getting paid to go fishing? You know, how much better can it be?

**Art Morris** [00:13:52] So anyway, I worked on a variety of projects. I was assigned to the shrimp project in Aransas and Corpus Bays. And, I worked on the first evaluation of red drum stocking where they stocked red drum fingerlings into St. Charles Bay there, a secondary bay of Aransas Bay, and worked with that, on that project there.

**David Todd** [00:14:27] Well, we should get into that.

**David Todd** [00:14:29] You know I was intrigued by all the different kinds of fisheries that you've worked with, and, but I was hoping to start with tarpon since you really had a, in my view, a key role there.

**David Todd** [00:14:48] Tell me, what was your first introduction to the Atlantic tarpon? Do you remember when you first saw one or when you might have first hooked one?

**Art Morris** [00:14:58] Oh, well, gosh. Probably saw one in a gill net out in Aransas Bay. I'd read about them my entire life. And we, like, my dad liked to come down here to the Upper Laguna actually, fishing and stuff, here in Corpus area. And so, every year we'd come to the coast and fish in the summer time, when I was out of school. And so, I got introduced to saltwater fishing at a pretty young age.

**Art Morris** [00:15:30] And then I read about tarpon and it is such a charismatic fish, you know, it is a highly sought-after game fish that people travel, you know, thousands of miles, and spend thousands of dollars trying to catch. That was very intriguing to me at a young age. And I always held them in high regard - as, yeah, there's trout and redfish, and then there's tarpon, the mighty tarpon. And, and, this was always kind of one of those things that was just out of reach. I know they are here in Texas, I never thought I'd ever catch one. And I've yet to catch one.

**Art Morris** [00:16:09] But I probably, the first one I ever hooked, I was in the surf down here, on the Padre Island National Seashore and fishing for trout, probably. And I expect I get a fish that goes off on a tear and, and makes one jump and throws your lure, but you know exactly what it is, as soon as it jumps and that gets ingrained in your brain pretty, pretty quickly.

**Art Morris** [00:16:36] And since then, I've hooked eight. Supposedly there's, the rule is that if you hook eight before you ever put your hands on one. So, the next one I hook, I should be able to land. We'll see about that.

**Art Morris** [00:16:51] But I'll tell you one that, that was really ingrained in my head was we were trout fishing in the surf below Bob Hall pier up here one day, and I hooked ... I was standing between two people and I hooked a tarpon that was bigger than I am. I'm six foot and I weigh 280. And it was bigger than me, you know. It only half jumped out of the water in front of me. And I had my trout rod and it came behind me and jumped on the first sandbar behind me, away from me, and broke me off. But that was, that was, that was impressive for, you know, looking at a fish that's about 30 feet from you that's as big as you are, you know, jumping with your lure in its mouth. That, that will set you back a few years.

**David Todd** [00:17:51] And you think this fish was as big as you, maybe bigger?

**Art Morris** [00:17:55] Yeah. It was every bit as big as me? Yeah, your eyes get big. But it was every bit of six or seven foot long and, and you know, 150-plus.

**Art Morris** [00:18:07] And it hit a little lure, a little quarter-ounce rattle trap, that's a little shad-looking lure, about an inch and a half long or so. And that's one of the more surprising things is why it would eat something that small in the first place. But they have a wide variety, a varied diet, I know now.

**Art Morris** [00:18:30] In fact, I've hooked several on a rattle trap over the years: it turns out to be one of my favorite tarpon lures, you know. But, yeah, so that's all this now, just amazing. You know, they're amazing fish, and to do that and read about and catch them on flies and such like that. It's, it's all good. It's all exciting stuff.

**David Todd** [00:18:55] Well, those two stories you told about hooking tarpon, it sounds like both times you were in the surf looking for trout. Are there other kind of situations where you've run up against tarpon?

**Art Morris** [00:19:12] Well, you know, they're found in the bays and we catch them in gill nets occasionally, but they're more common in the surf. So, jetties and piers are very popular with them. They like structure. They like lying up against the jetties at Port A, and facing the head into the current, waiting for the bait to come to them and such. And you'll see them a lot of times rolling and swimming around and stuff.

**Art Morris** [00:19:41] And the others I've hooked over the years, with the exception one down in Mexico it was, have all been in like surf fishing or jetty fishing, so.

**Art Morris** [00:19:55] They were very, you know, they used to be really thick. At certain times of the year, they're okay now. But if you, with a reasonable effort, prime times of the year, late summer and such, you can actually kind of target them. And those that do spend a lot of time doing it. Often, they're successful. But it's, you know, they're generally small fish. And there's a few people up and down the coast that target them. Off Galveston used to be a good spot to fish for really big ones. And in fact, the two state records, the current and the previous one, came from just off Galveston Island. So, it's probably still good for that, but not like it was back in the fifties, or before.

**Art Morris** [00:20:48] But anyway, yeah, there's, they're, they're most commonly hooked in the surf.

**David Todd** [00:20:54] Okay. Well, I think you've sort of given us some flavor of where they might be seen and hooked. Can you tell us a little bit about the basic life history of a tarpon?

**Art Morris** [00:21:10] Sure. We don't know a whole lot about it. But they reach average sexual maturity at about four foot, at what, about six or seven years old. The six-foot, two-meter long tarpon, adult female, can produce about 12 million eggs. Apparently, based on some satellite tagging data out of Florida that the, the adults move offshore into deep water, deep water, 400 feet or so, particularly on new and full moons and broadcast spawn like many fish do. And they broadcast spawn the eggs, and then the males come around and broadcast sperm to fertilize them.

**Art Morris** [00:22:06] They take about 30 days to larvae, which are called leptocaphalus larvae, because they they undergo a metamorphosis about 30 days that the leptocaphalus, which means "skinny head" or "thin head" in Greek. The larvae look almost eel-like. And, in fact, there is a close kin relationship between eels and bonefish that also have leptocaphalus larval stages. So, there's apparently some sort of kinship there, evolutionary kinship there.

**Art Morris** [00:22:45] So but nevertheless, the larvae take about 30 days to metamorphize into the adult form, and then those larvae and then the post-larvae will make their way through the currents and go back into the, in Florida, for example, the Everglades, their fresh water, brackish water environs where the, they're safe from predators. And there's lots of abundant food resources. And they live there for, in the neighborhood of three or four years, until they get up about four foot tall or, I'm sorry, about 30 inches or so.

**Art Morris** [00:23:34] And then they'll some of the subadults gets, will move into the surf zone, at least off Texas, probably along the Florida coast too, and that's where they spend the rest of their lives.

**Art Morris** [00:23:49] And then, they migrate. They can't stay. They're cold-intolerant, so they're a tropical species. So in the wintertime, at least off Texas, they move south, and move down the Mexican waters and then they come back in in the, in the early summer, June is usually the first time we see them.

**Art Morris** [00:24:13] Occasionally, there's some that overwinter. There again, if we have a cold spell, like a freeze, it'll wipe them clean. And so, they don't do well with cold water. So, but, nevertheless, we have a few probably that will over-winter.

**Art Morris** [00:24:31] But the vast majority of the subadult and adults will migrate south. And we share that population with Mexico.

**Art Morris** [00:24:42] It's also probably, the Mississippi River divides the western Gulf from the eastern Gulf. But there, I think there is some evidence that at least on the upper coast, Galveston, which would be an area that may share tarpon with that Florida population. So. Well, anyway...

**David Todd** [00:25:02] That's interesting. So you think there may be two kind of subpopulations of tarpon - one that hangs out in the eastern Gulf and one in the western Gulf with the Mississippi River being a dividing point? Is that right, am I following you?

**Art Morris** [00:25:17] Yeah, that's kind of the general thinking, based on the, you know, satellite tagging and other tagging efforts. That's what appears to be happening. I'm not aware and they may have, maybe even done a little genetic work. I'll have to ask those guys. But there's, there's enough evidence out there that supports that theory.

**David Todd** [00:25:45] Huh. And tell me about the kind of ecology of these fish. I understand the tarpon is a, is a pretty top-level predator, but it sounds like it's got a pretty varied diet.

**Art Morris** [00:26:02] Well, they, yeah, they, they adult forms certainly will eat fish and crabs and shrimp and things. The larvae eat zooplankton and such and work their way up food chains, basically, as the older they get. Even, even as juveniles in those marshy or brackish water, you know, estuarine situations, river mouths and such, they'll eat even insects and such, aquatic insects.

**Art Morris** [00:26:34] They are, they're pretty much indiscriminate feeders there.

**Art Morris** [00:26:40] Once they become about six-foot tall, nothing really feeds on them, except the occasional shark, so.

**Art Morris** [00:26:45] They eat a lot of mullets, shads, herrings and, and small fish, probably pretty much anything smaller than the, but they feed mainly on menhaden, and the shad-like species, and a lot of mullet.

**Art Morris** [00:27:07] So, I know a lot of people have hooked them in the surf fishing with my live or dead mullet. And apparently they're not so picky that they won't eat dead things on the bottom as well. Like that dead mullets and fish.

**Art Morris** [00:27:23] And they love crabs, apparently. You know, one of the, kind of one of the behaviors they do in Texas, and in Florida, so they'll sit up with their head into the current and wait for crabs to swim, well follow and follow the current down and sit over the top of them. They'll come up and they can gulp them down. So, they like that.

**Art Morris** [00:27:44] So, so they're, the one good thing about them, I guess that they don't have a, they're not very picky eaters. And so very, having a very varied diet is a good evolutionary trait, you know, so you're not dependent on any one type of food source.

**David Todd** [00:28:02] You know, you talked about, or just mentioned, evolutionary traits. And, and it reminds me that, that from what I've read, the tarpon has really a, has an ancient fossil record. And I was hoping that you might be able to tell us a little bit about some of its ancestors.

**Art Morris** [00:28:23] Well, yeah, very little. I know that their ancestors date back to like the Cretaceous. And about 130 million years ago, the fossil record has got fish that, and I've seen them in museums and such, that they look just like a current tarpon. There's very little difference in them. Certainly, you can see the family resemblance there. There may be slight differences in maybe dentition or something, but they're, for all practical purposes, look like a tarpon we have today. And the fossil record has shown that over the years. Everybody, all those paleontologists and such, that study those kinds of things, are all pretty much in agreement that they are, they're ancient species.

**Art Morris** [00:29:17] And in fact, one of the evolutionary traits, to go off on a tangent here, which I should have mentioned this earlier, was that they have an ancient ability to gulp air and use oxygen from the atmosphere. And they do that because they have a modified swim bladder that allows them to, to absorb oxygen out of the air. So, the studies kind of go back and forth on them, but I think pretty much everybody agrees that they're obligate air-breathers. And they actually do a lot of gulping. Although some studies have put them in an aquarium situation where they, where water is oxygen-rich, and they block them from hitting the surface. They live just fine for 14 days.

**Art Morris** [00:30:18] But I think pretty much the science says that they really can and do better and they're obligate to breathe air on occasion, or gulp air, I should say, which is an interesting evolutionary advantage to them, because they, that gives them, allows them the ability to go back up in those creeks and those estuarine systems that are low in oxygen and, and survive where other species can't. But anyway, that probably dates back to the prehistoric times as well. So...

**David Todd** [00:30:58] That's fascinating. I mean, they seem very, I guess, diverse in the kind of habitats that they'll tolerate, you know, from deep ocean to shallow upstream areas. And then and then the variety of things that they'll eat. Interesting fish.

**David Todd** [00:31:18] Well, and I guess one of the interesting aspects of it is that it's just so charismatic and so appealing to anglers and the big history of tarpon sportfishing, I know, in Texas. And I was curious if you can recall any stories about the Tarpon Club or Tarpon Rodeo, Deep Sea Roundup, etc.

**Art Morris** [00:31:44] Well, yeah. Yeah. I guess the most famous one is that Port Aransas at one time was called Tarpon because it was a big fishery for them, big sport fishery back in the early 1900s.

**Art Morris** [00:32:02] And I think it was like late thirties that Franklin Delano Roosevelt came to Port Aransas and fished for tarpon. There's pictures of him holding up, I think he caught a couple, two tarpon, hooked several, but fishing on the famous Farley boats with Mr. Farley, can't remember his first name. But yeah, it was a big news thing and reporters and photographers were all around that. But, but there's famous, there's the famous pictures floating around over in Port A and other places. You can certainly see them online. And I think there's even a little video of it.

**Art Morris** [00:32:46] But, but, yeah, at one time the tarpon were so abundant that they had tarpon rodeos, which I think the Deep Sea roundup currently was, was once called the Tarpon Rodeo or something along those lines. And now they don't, a lot of them don't even believe they have a tarpon category anymore. So that kind of leads to a different story.

**Art Morris** [00:33:10] But you know, back in the day, you know, keeping, keeping tarpon and displaying them on the dock and then I guess selling them to shark fishermen or making dog food out of them or cat food out of them. That was a common thing to do.

**Art Morris** [00:33:29] Fortunately, we got out of that and we probably had to do it, fortunately, through fisheries laws. But, you know, yeah, it's, it's been a very good thing for tarpon, although there's other forces working against them. But, yeah, back in the day, they were a big, big deal in Texas.



**Art Morris** [00:33:54] There's one thing I forgot to mention too, back in the old days, is that there was a guy named Hart Stilwell who wrote a manuscript that was lost and found in one of the archives, libraries, there in Austin. I don't remember which one. But I had a co-worker who worked for Parks and Wildlife that found it, or got wind of it anyway. He presented it. It was just an unfinished manuscript.

**Art Morris** [00:34:28] And he presented it to an outdoor writer I know - Brandon Shuler. They lived in Port Mansfield at the time. And it was all about tarpon fishing and the state of tarpon on the Texas coast back in the thirties and forties and fifties. And Hart Stillwell was at the time an outdoor writer for Outdoor Life and Field and Stream and who can tell what else. But he was a very prolific writer.

**Art Morris** [00:35:04] And anyway, Brandon got his hands on that and he rewrote that and published a book called "The Glory of the Silver King". And it tells a story about, stories about, fishing back in the day where it wasn't nearly, nearly the effort you had to today to catch them, and also left the message that we were ruining it with shrimping and netting and everything else that was going on in the day. And in fact, he even suggested back in the early seventies that you should have a shrimp license buyback program. And we did. We ended up with one. But it was, you know, 30 years later.

**Art Morris** [00:35:57] But anyway it is a very good book and if you ever get a chance to read that, it's an interesting history on Texas tarpon fishing.

**David Todd** [00:36:08] Yeah, thank you for the tip. I'd like to check it out. Yes.

**David Todd** [00:36:13] Well, so I gather some of the background to a lot of what you've been telling me is that in the early part of the 20th century, maybe through the mid part, tarpon were, you know, a great target for anglers and popular and maybe somewhat common. But from what I've heard, there's been a pretty significant decline in either the number of tarpon or maybe the ability to see them and catch them. And I was hoping that you might be able to tell us a little bit about why you think that change might have been seen, if that's, if that's the case.

**Art Morris** [00:36:56] Yeah, it's pretty well documented that tarpon populations are reduced from what they once were and certainly anecdotally, it has definitely changed for the worse. But, you know, back in the fifties, basically we went through. Well, back up there a little. You know, went through the Great Depression and then World War Two and such.

**Art Morris** [00:37:27] And then in Texas, we had a big long extended drought back then, in the forties and fifties. So what we did to offset all that, needed work and things like this, we, we dammed up damn near every river flowing into the Gulf of Mexico along the Texas coast. When that happened, that reduced the usable habitat for juvenile tarpon, you know, 100-fold. Every mouth of every river was tarpon habitat, particularly if it was brackish. They had a lot of fresh water in them.

**Art Morris** [00:38:07] And so, you see now that we have, we have reduced those flows, we have reduced that habitat to now it's more salty than what it once was at the mouths of these rivers. And so with that, in combination of overfishing and the practice of when you caught one, you hung it up on a hook and took pictures of it, you know, and then it was disposed of somehow. But it certainly wasn't disposed back into the water alive.

**Art Morris** [00:38:39] And probably, certainly a combination of all that stuff was, went through what I might call the demise of tarpon fishery on the Texas coast. And I don't think anybody can argue that that's not, it's not as good as it once was and perhaps a long shot.

**Art Morris** [00:39:01] And from what I've read, what I've seen, and actually in my short 30 years or so in Texas, you know, there's things have changed and now we're dealing with climate change and the water getting warmer on the coast and species disappearing. So there's a lot of factors working against it.

**Art Morris** [00:39:25] But I think the main thing this is the habitat destruction, or reduction, I should say. Certainly, building on Texas coast hadn't helped, you know - filling in these marshes and these marsh ponds.

**Art Morris** [00:39:37] A baby tarpon doesn't require a whole lot. It's just, there's any number of observations where they have been found in bar ditches and such, but as long as it's fresh and, or freshish, they will love it there. And they could find plenty of resources there, and they need that, as opposed to the open bay or to open ocean. When they're small, they're fair game for anything bigger than that.

**Art Morris** [00:40:08] So that's, it's those things and the management practices too - all these things will help. But I'm not sure we're, unless, I'm not sure we can, we can come back from that, but we do the best we can with what we got, I guess.

**Art Morris** [00:40:27] But that's where I think we are now, and what it's led to, certainly a reduction in population and some would argue probably the demise of the tarpon fishery. And it certainly is not as good as it once was.

**David Todd** [00:40:43] So you mentioned some of the changes in the habitat and the flows. And I was curious if you had any comments about what I've heard is really one other factor is that the fishery down in Mexico where they go I guess during their winter season. Do you think that that was significant or not so much?

**Art Morris** [00:41:11] Yeah, yeah, I'm sure it is. I mentioned over-fishing, but I didn't define it. Yes, but you know, yeah, in Mexico, they're fair game. When I was down in Mexico fishing, you could see little baby tarpon, the subadult tarpon, on the food markets there, the fish food markets. Any fish that they catch, it goes to the food market. And tarpon are no exception. And in fact, they, they have long lines and gillnets and they net everything everywhere, even though largely gillnets inshore is illegal. But there's no game warden system really to enforce it. So it's, you know, it's, you know, "catch me if you can", kind of thing I guess.

**Art Morris** [00:42:08] Yeah, they, they've certainly overfished down there and they even have a big tarpon tournament in Veracruz that's a kill tournament, a huge fishing tournament down there on the Gulf, so.

**Art Morris** [00:42:22] You used to could go down there's still a lot of tarpon, from what I'm told, that in the marshy areas you see juveniles and such. But they get out there in the bays, in the Gulf and they're fair game and there's no fisheries management, so to speak. It's very, very relaxed down there. And that, that's going to affect us and likely probably some of that in Florida, certainly in the Caribbean, so those populations.

**Art Morris** [00:43:00] I'm sure they, they're being a highly migratory species, they are, they're catching fish in Mexico and in other countries are found or spent part of their time, probably in other places where they they're protected. So, yeah, that doesn't help things at all.

**David Todd** [00:43:27] So I think it's interesting how you and some of your colleagues have learned about the tarpon and, you know, its migrations and life history and ecological role. And I gather that one of the ways this was done is through this Tarpon Observation Network that you were involved with. And I was hoping you might be able to tell us what the origins of the Network were, and how it worked, and what you might have learned from the Network.

**Art Morris** [00:44:06] Yeah, well, I was at a, where was I at, I think I was at a Texas Outdoor Writers Association meeting in the Valley. And there was a presentation on birds, and the person giving the presentation talked about this bird observation network that was conducted by Cornell University, and I think it was iBird, was the name of it. And it was a volunteer-based program. Birders throughout the United States and Mexico or wherever volunteered their observations.

**Art Morris** [00:44:50] And the presentation I saw showed, I don't remember what species a bird was, but it's something that wintered, over-wintered in the Caribbean and then and then nested some summer time in Florida, southeast United States. Anyway, they had these observations that were plotted, they were dots plotted over time, and they gave series of months. And you watched these dots move throughout, you know, through the Caribbean to South Florida, up Florida and then to North Florida. I was fascinated by that.

**Art Morris** [00:45:29] And it was, it came to me while I was sitting there that we could do that, with fish. And then, what fish could we do that with? It had to be something that was charismatic. It had to be something that was important. And it didn't have to, it had to be workable. You probably couldn't do it with trout. It'd be too much work. But we do something like with tarpon or snook or things.

**Art Morris** [00:46:10] And I went back up and pondered on it for a while, talked to some cohorts that worked in our GIS department, and was it even feasible to even create something like this. And basically ran it up the flagpole and got permission to go after it.

**Art Morris** [00:46:29] So I sat down with this group in Austin. And two ladies, Mary O'Brien and Vivian Eckman did most of the work, and certainly all the coding and such. And they basically asked me question what I want, and they made it happen. So, and so we sat down. It took two years and we got it live, in, I think, in the fall of 2009, I believe it was.

**Art Morris** [00:47:01] And what it was we called it Tarpon Observation Network. It was a volunteer-based program where if you caught one, saw one, found one dead, you'd go on a map, drop a pin basically on the spot. Tell us a little bit about it. If you, if you caught it, how long was it, did you weight it? Anything else that was curious about it. So, yeah, if you had a picture, you could load up a picture of it, blah, blah, blah. So.

**Art Morris** [00:47:33] So after about the first couple of years that we had basically doubled our observations of tarpon in Texas from the time would have been about 30 years of routine sampling that the Department does on the Texas coast and they have since the mid-seventies. So, we'd, if I remember right, it was something like 350 tarpon that we had laid our hands on in the sampling program. And you know, within the first couple of years of the Observation Network, I think we had doubled or tripled the number of observations that we had.

**Art Morris** [00:48:13] Now, granted, they were, you know, they were anecdotal information. A lot of scientists stick their nose up at stuff like this. But in this case, I thought it was interesting that we could find, we see where we, why we weren't catching them, because we weren't sampling where they are, where they are, apparently.

**Art Morris** [00:48:33] And we've, and it was, it was really interesting. We, you know, people cast-netting in bar ditches would find them.

**Art Morris** [00:48:41] There was one observation - this guy was 28 miles up the Brazos River and caught one and that really blew my mind. I didn't realize they were, they used that river, that river or any apparently any rivers, that far inland. And, you know, we found them at the mouth of Guadalupe delta. There were operations at the outfall at Dow, at Lake Jackson, the water outfall there at that plant. We knew that we'd seen them and heard about them and people have caught them at outfalls in other places, like in Corpus and Houston and such. Now, we had it down in a central location that we could, and anybody else could use it for that matter.

**Art Morris** [00:49:40] So anyway, it was quite exciting and I enjoyed playing with that. And gave several presentations about it, received a good vibe from it. And while I was running it, we learned a little bit about it and I got people involved in things.

**David Todd** [00:50:09] Well so, I think you mentioned this in the course the talking about the Network that you learned a lot, but that there was some, oh I don't know, disdain that it was citizen-generated, that it was anecdotal in a sense. How do you think about that? I mean, it's information, but the quality is sometimes challenged. What do you think about, you know, the value of citizen science in cases like the Tarpon Observation Network?

**Art Morris** [00:50:49] Well, I'm obviously a little biased in that, but I think it's great. You know, this is not the first volunteer-based program out there: there are like birds and other wildlife. You know, there's a roadkill observation network in California. I mean, if you, you know, rather than spend a lot of money and time and effort to go answer these questions, at least anecdotally, we could say this happened based on this program.

**Art Morris** [00:51:22] And I, you know, I worked at the science and policy division at Parks and Wildlife. And one of my jobs, basically, was to take that science and dummy it up for the constituents, because, you know, we'd rattle off all these scientific terms and statistical analyses and stuff, and really most of them are not going to get it. So, these programs, like these volunteer-based programs, are one way that people can help science and there are plenty of people out there that like doing that, they like, they like helping to spread the knowledge of whatever organism and they get a kick out of that.

**Art Morris** [00:52:13] And if nothing else if, if we'd, you know, if people have a tendency to, if they don't see it or like it or whatever, they tend to forget about it and not support protecting it. And in this case with tarpon, you may not even be an angler. And we had some of them, so, you know, the quintessential little old lady would report, you know, "I saw one". "Yay me", you know. And that's good. Now she's, now she's probably interested in protecting that species now. And, and she didn't, she's not a scientist. She not, you know, maybe not an angler, could care less about it otherwise, but it's a pretty fish, and I saw one, and I participated. Now I like that. I'll support that new rule change down the road, or support them opening some

environmental flows for estuarine, you know, purposes at that. I think that's one of the better things that these kind of programs help out.

**Art Morris** [00:53:32] You know, we tend to not love things we don't play with. We're indifferent at the very least. I, I strongly believe that you get people involved and that they'll be more likely to participate in protecting that. But that's whether it's, you know, parkland or fish or birds or whatever, it opens their eyes to things. And I think they, like I said, if they'll love it, they'll protect it.

**David Todd** [00:54:14] Well, that helps. So there's sort of a educational and political side to this, for the public, aside from the value for scientists who are trying to see trends and patterns. Is that what you're telling me?

**Art Morris** [00:54:34] Well, yeah, there's, there's, scientists, scientists, they need their repeatable, their repeatability of their observations. You know, that's their way, I guess. But, I think there is room to incorporate this, at least into the general knowledge of any species.

**Art Morris** [00:55:00] And then, you know, can I defend it in court? No, I can't.

**Art Morris** [00:55:06] But, in the court of public opinion, maybe I can. So, there's, there's that too, to me anyway. And I may be wrong, but I've seen how people are. You can't confuse them with the facts, you know. They have their strong opinions about things, and that's good for them. You know, at least in my case, it was. It was, there were tough times, too, to convince them that what they thought was right was wrong. So I spent a lot of time doing that.

**Art Morris** [00:55:56] So, but anyway, let me get back to the Tarpon Observation Network. Here we got something that's, you know, if we ever decide to go sampling for tarpon, for example, now we know where to go. Now we know where to look at. Our standardized random sampling program, it's good in many ways, but if you're looking for tarpon, maybe it's not the best thing we should be doing. But anyway...

**David Todd** [00:56:28] All right. Well, that that's really helpful. And, you know, while we're talking about these citizen science programs, I thought we should also talk about another project that you were involved with is this effort to get the public involved in collecting and removing abandoned crab traps from the Texas coast. Tell me how that started and why it was adopted, and, you know, what sort of impact there was.

**Art Morris** [00:57:04] Oh, wow. Let's see, in the 2001 legislature, passed a law that allowed us the opportunity to create a crab trap removal program. And then the problem was that there's no salvage laws in Texas. You know, you can't just go out and pick a, obviously, an abandoned crab trap and remove it from the bay. It's somebody's property. So what we did, what the Legislature did, and what got them started, I should say, was that game wardens would go out and could remove them for illegal fishing.

**Art Morris** [00:57:47] But, you know, spend that much time and effort, you know, removing these crab traps was just too much. And we had, and largely it was being done on the middle Texas coast - San Antonio Bay and such. But, so, they would have little, small, little volunteer kind of groups get together about once a year and, remove crab traps, but there had to be a game warden there. And say, we could remove this because it didn't have a float or tags or whatever. And so, they worked on that for a couple of years.

**Art Morris** [00:58:35] And then one of the guys that they took with them came up with the bright idea that maybe we should just get a law made where we can do this with volunteers. And he approached his congressman, and I can't remember who that was now. But anyway, the law got passed to create, Parks and Wildlife, could create an abandoned crab trap removal program that was to occur on the third Friday of each February and last for ten days. During that ten-day period, we could, any crab trap left in the water was considered abandoned and could be removed, OK?

**Art Morris** [00:59:20] The problem with that is we've got active crabbers. They're fishing, and these, this is their livelihood. So, we had a little bit of a learning curve there and a little bit of, you know, push-back from the crabbing industry. But if it was there in February, not a, not a time of year that they caught a lot of crabs. And they soon bought into it.

**Art Morris** [00:59:43] A few lazy crabbers didn't remove their traps or didn't, you know, they'd put them out in a pile in the bay somewhere. That didn't pass muster. So, they were still in the bay, they were still fair game. So, we removed some that, some that were active traps but they weren't, they weren't properly removed.

**Art Morris** [01:00:12] So, but, anyway, the program started in 2002. And man, it was a big hit. We had crab removal programs, stations, on every bay system of the coast. I want to say we had roughly 16 or so spread up and down the coast. People got involved - CCA, Coastal Conservation Association, Boy Scouts, gosh, I don't know, Friends of Whatever Bay, you know, all kinds of programs, organizations got together and came out. They had barbecues the day of the cleanup. We had a main event day, what we called the first Saturday of the program, of the ten-day period. That was kind of the come-hell-or-high-water, that was the day that they were going to go remove traps.

**Art Morris** [01:01:10] So these people would get together, and they would have (we didn't, we didn't facilitate any of that), but people would have barbecues to feed the volunteers. And people'd go out. Now, I think that first year, we removed 3020 traps - 'way far exceeded expectations. I forget how many volunteers we had - 600 or something like that, and that's with a lot of boats, probably 400 boats. You know, it was, and as is today, I just read, just to catch up, was they've removed over 40,000 traps on the Texas coast. And the program's still going strong.

**Art Morris** [01:02:00] And part of the problem was, one of the benefits of that program is not only were we removing unsightly trash in the bay, these abandoned crab traps ghost-fish: they fish, they attract fish into them, and crabs. The crabs die, can't get out, so they create bait. So there's a continuing fishability of these traps that goes on and on and on.

**Art Morris** [01:02:30] And a side program to that program was that we went around and looked at several of these traps to see what were, what was in them, and what they were catching. And I think we had like 30 species of fish and invertebrates, invertebrates even like diamondback terrapins, which is a little-known species, marsh species, that very few people know about, but are in the herpetological world are very unique and are very charismatic.

**Art Morris** [01:03:20] And, and at one time, at least on the East Coast, Chesapeake Bay area, they were the main ingredient in turtle soup that was served in the White House and such. And so, at one time they had a commercial value to them (not anymore), but they were less due to crab traps. Drowning in crab traps is one of the number one mortalities for that species. So, we're kind of interested in that, in looking at that.

**Art Morris** [01:03:47] And then and also whatever else we got out there, came into it, got caught in the traps. And a variety of game fish: reds, trouts, flounder. There was at least two otters - one skull and one dead animal found in them. Oh, you know, all kinds of stuff I can't remember of all. But there's a pretty much what you'd find in the bay would get caught in those things. And you know if I forget now what the numbers were, but we extrapolated what one crab trap would kill over the course of one year, and the numbers were astronomical.

**Art Morris** [01:04:36] So removing these traps not only served a kind of a trash removal program, but also served as a conservation effort to reduce this ghost-fishing, this waste of these other important species.

**Art Morris** [01:04:55] So we were happy about that. And I was, I ran that program for 14 years until I retired. That's one thing that I was proud of being involved in, so.

**David Todd** [01:05:10] Well, I can see why it sounds like a great program and it's had such a good benefit.

**David Todd** [01:05:17] You know, one of the other things that that I thought was interesting about your career is, is your role in another effort to try to reduce some of the fishery pressure in the bays and that's this Parks and Wildlife program to buy back Texas bay shrimp licenses. And I'd really like to hear, you know, the inside view of how that program came about and how it worked and what sort of impact there was.

**Art Morris** [01:05:48] Yeah, yeah, that was, that was a big deal. That was, oh, it all started with shrimp, inshore shrimp (and later, offshore shrimp). But, trawling, you're probably well aware of, is pretty inefficient way of catching shrimp. There's a lot of bycatch. Eight to ten pounds bycatch per pound of shrimp that you'd get, on a good day.

**Art Morris** [01:06:23] And there were, you know, lots of devices installed, there are bycatch reduction devices, turtle excluder devices, stuff that allowed, and some escapement of shrimp, the shrimpers don't like using them. And they only work so well anyway. You're getting all this waste. You get in a fishery that's, that's, at best, tenuous anyway, because the impact of imported shrimp from Southeast Asia and other farm-raised sources.

**Art Morris** [01:07:00] You know, the American public doesn't know the difference between a wild-caught shrimp and a farm-raised shrimp. Any, any time you go through a Chinese buffet, for example, it's all farm-raised stuff. And most restaurants are like that. They're, they're easier ... chefs like them because they're easier to sort. They're all the same size. They're cheaper. And the public doesn't know the difference.

**Art Morris** [01:07:28] And so the shrimp that we catch in our backyard is vastly more expensive to land. They got a lot of competition for that limited resource.

**Art Morris** [01:07:42] So, at the time, back in the late nineties and stuff, their options to manage fisheries, which was "ways and means", you know, the hours you can trawl, the gear you can use, the times, days, etc., where we'd pretty much exhausted that over, you know, by that time, about 20 years or so of fisheries management with traditional means.

**Art Morris** [01:08:11] And so, it wasn't working. We had too many people in there, in the fishery. So, we actually went to the fishermen and told them that we've got two things here.

We can regulate you to death, where you're extremely inefficient, more so than you are now. Or we can go to eliminate your program and try to reduce the number of participants in at least the first, fixed number. So, you don't get people jumping in when the catching's good, then jumping out when it's bad. So, all affecting the markets, you know, so, and the value of shrimp and the sizes of shrimp, etc., etc.

**Art Morris** [01:08:56] So, so anyway, so in '97, I believe it was, the Legislature passed the shrimp limited entry program, and in that was a license-buyback provision.

**Art Morris** [01:09:08] And so, actually one of my first job was to facilitate that on the lower Texas coast. And so, we started buying back licenses. And the shrimpers paid into it. We had donations of people who liked to donate to that. There are, I forget what the percentage was, but a percentage of the license sales for shrimp licenses and dealer licenses went to that program.

**Art Morris** [01:09:40] And anyway, we ended up reducing, over my career, I think we reduced about half of the shrimp licenses, which left it down to the people that were treating it as a profession. They were full-time. There was less competition for the same resource, and that gave them a chance, you know.

**Art Morris** [01:10:11] And I think there's still, still the same pressures are on them. And I think it's a kind of a dying profession, but at least inshore, at least.

**Art Morris** [01:10:23] And so. It worked out great. That was it. It's, it helped shrimp. At least shrimp weren't declining populations. They're at least static, and maybe by now, are going up. I haven't looked at that data in years. I can't speak to that, but it was a good program, which led to the finfish program, which is the trot-liners, and then the crab fishermen.

**Art Morris** [01:10:57] And it all, it all worked out good too. They supported it. They had to support it. They had to go to the Legislature to do this. So, we had to have shrimpers and crabbers and finfish fishermen to go to Austin to support that bill when it came around.

**Art Morris** [01:11:15] And it worked. And we got it passed. And all those fisheries are in a lot better shape, at least, at least economically. And likely the fish, the fisheries, are in a lot better shape. And not as much pressure, not as much pressure, as there once was.

**Art Morris** [01:11:31] So it was a great program and it has helped.

**David Todd** [01:11:40] Well, so these, these efforts to buy back the shrimp licenses, I guess, are trying to put your finger on the scales as far as the demand for shrimp, the pressure on the shrimp stocks. And I gather another way that Parks and Wildlife and you have been involved in trying to manage fisheries is by restocking. And I think there's been a pretty celebrated and long-term effort to breed and release red drum. And you had a role there in evaluating the program, and I was hoping you could talk about the history of restocking red drum and, you know, why there was the call to do that in the first place and then kind of how it worked and what the impact has been.

**Art Morris** [01:12:41] Back in the late seventies, there was a professor at UTMSI, Texas Marine Science Institute in Port Aransas, Dr. Connie Arnold, that developed technique for spawning red drum indoors. And he did that by manipulating the photo period and the amount of sunlight, and their light in this case, and the water temperatures. Just basically



reduce the 365-day year into about 200 days and fooling the red drum into spawning in captivity.

**Art Morris** [01:13:21] Red drum are pretty easy to spawn. It doesn't take a whole lot. They're not real picky on what they, what they, where and how they do it. But anyway, he figured out a way to do that and anyway he passed that, that technology over to some Parks and Wildlife hatchery guys.

**Art Morris** [01:13:47] And so the hatchery, the Perry R. Bass Marine Research Station in Palacios, they got to doing. So, back in 1980, when I first started work, one of the projects I worked on was the first evaluation of them stocking red drum, fingerlings, into St. Charles Bay. And so, we did that. And so, we had an intensive effort trying to catch red drum fingerlings that were stocked. And then later on, a couple of years there, and they grow real fast. So, we ran gillnets, small-mesh gillnets, and travel nets, and bag seines, and such to try to capture some of these, what we thought would be hatchery red drum.

**Art Morris** [01:14:33] And two years out we really didn't see anything that we could definitely hang our hat on. But that didn't stop the momentum of the idea of doing it on a larger scale. And it was a, it was an easy way to at least, if nothing else, replace the number of fish that were being taken out of the fishery each year. So, if it had any impact at all, that was, that was, if it did that, it was, that was a good thing, and we could we live with that.

**Art Morris** [01:15:13] And this was a time when the red drum wars, gillnets were still being used for commercial fishermen and stuff. So it was, redfish were big on everybody's mind. And so, the department went with it, and it's grown. Now, there's three hatcheries on the Texas coast and they stock millions of eggs, or millions of larvae, fingerlings into the system, all systems, based on a catch rate of red drum fingerlings in a bag seines in each system each year. So, if they're getting low on red drum, they'll get more. If they have a lot of juvenile red drum they caught in bag seines, then they won't get so many.

**Art Morris** [01:16:06] So and I forgot what the numbers are. Millions of them are released each year and they're also working with trout, too. They release them as well, and flounder now. And as all, if nothing else, if they can replace just what's being caught, then our fisheries will be in good shape.

**Art Morris** [01:16:29] In at least the red drum case, that, combined with some pretty restrictive management measures, took them off commercial market back in '81, I think it was. And then George Bush, actually President George W. Bush, signed a resolution that took striped bass and red drum off the commercial market in federal waters. So, at the time, now that you got it protected in state waters, and now in federal waters they are too. So, it boiled down to there's no, the only catch, the only harvest you're going to see out of that is in the inshore by sport anglers, so which are, which can be, they can do their own share of damage, but it was the least controllable.

**Art Morris** [01:17:23] And so with that, and over the years, red drum have, have exceeded all expectations. And I mean you can walk across the backs of red drum in the Texas bays today, and that's pretty much the case now throughout the Gulf of Mexico, which is all states have them. In fact, Florida has their own stocking program going on as well. So, you know, we've seen great strides in red drum over the years, certainly over my career. And that's certainly a big deal for Texas. It's one of the two major sport fish. And we, we pat ourselves on the backs for that.

**David Todd** [01:18:11] Well I can understand why.

**David Todd** [01:18:14] So let's, let's just resume to talk a little bit about the red drum, because I think it brings up lots of interesting questions.

**David Todd** [01:18:26] So one aspect is, and I've heard about this from other folks who have some skepticism, some doubts, about the wisdom of stocking fish in a wild environment where, you know, you've got one set of fish that are captive-bred and then another that's, you know, grown up in the wild. And I guess they're different attributes for each, you know. And I guess this affects red drum and trout and flounder nowadays. Do you see that as being a problem? Is there some competition between those two groups of fish that, you know, may be a problem evolutionarily?

**Art Morris** [01:19:18] Well, you know, that was kind of one of the criticisms at first was that, for red drum stocking. They take great strides in avoiding that, even if there is a possible problem with that. Red drum, once they get spawning age, about three years, they move to the Gulf and we never see them again, basically, in the bays. And they join a big mass of red drum. It's a big giant spawning aggregation. They live on the Texas coast and go to Louisiana or Florida or whatever. Oh, one, basically, one big stock.

**Art Morris** [01:20:04] But, just, just in case, what they do is collect brood stock from upper, middle, and lower coast of Texas. And they only take the offspring of those, of those areas and stock them back into that area. So, you catch a brood stock from the Galveston Bay, let's say, the offspring only go into Galveston Bay. They don't, they don't put those in the Lower Laguna Madre, for example. So that same goes up for trout and flounder as well.

**Art Morris** [01:20:41] But at least, at least in trout, we do see some clinal differences in genetics.

**Art Morris** [01:20:50] Redrum, because they because they live in the bay their entire lives. They're also, basically, basically they don't move far. So, there's at least little genetic differences between upper, middle and lower coast, maybe even at the bay level, in some cases, like for example, up at Lower Laguna Madre is hyper-saline. So those trout are specifically engineered for that, that habitat there, versus ones that live in Sabine Lake which are almost fresh water.

**Art Morris** [01:21:22] So it's, there's, there's we could see, you could see differences there. But red drum, like I said, they're, they're very mobile, particularly when they reach adult stages, and it's no telling what kind of mixing is going on with the Texas coast. But, just in case they only take those offspring from where their parents come from, and stock them back into that system.

**Art Morris** [01:21:46] So as far as them out-competing them with anything else, I really don't see that being an issue with resources and stuff. They've, you've taken a, you've taken an egg, basically, that is raised in a tank, you know, thrown it in a pond, and grown it out for, what is it, 45 days, and released into the bay somewhere; versus a wild-hatched egg that has drifted in the currents back into the backs of the bays where it lives its entire life. And he has, he has been exposed to all these dangers and all the environmental factors that occur along that journey.

**Art Morris** [01:22:37] And so if anything, I would think that those hatchery fish are probably less competitive than the wild-spawned fish. But, but nevertheless, it's, I doubt that there is any kind of competition going on there.

**David Todd** [01:22:57] Okay. Well, thanks for, for fielding that one.

**David Todd** [01:23:01] So this question of breeding and releasing fish reminds me of the earlier conversation we had about tarpon, and, you know, some of declines have been seen there, and I imagine there would have been interest in trying to restock tarpon. Yet, evidently, that hasn't happened. And I was wondering if you could help us understand why that is.

**Art Morris** [01:23:32] Yeah, sure. We approached that subject, a bunch of guys did, tried. Just the same program that works for red drum doesn't work for tarpon. But there's, but there's other things that in the tarpon's spawning behavior that you just can't duplicate.

**Art Morris** [01:23:56] For one thing, the fish has to be, you know, four feet, you know, probably ideally, probably more like six feet, to be sexually mature and able to produce eggs. So, so now you have a problem with infrastructure. What do you keep that fish in, that's big enough for them to think they're in the open ocean. And then that leads to where, well, now that they spawn offshore under great depths, how do we reproduce those conditions? You just can't do that either. You put them in a pressure chamber or something? Yeah.

**Art Morris** [01:24:39] It gets, it gets too way out of hand real quick with tarpon. You just don't have the infrastructure to do it probably and really don't know exactly. Tarpon, for all we know about tarpon, there's a lot we don't know about them. And, the spawning behavior, and spawning is really one of those areas that we don't know a whole lot about them. It wasn't until not that long ago that anybody'd ever, ever actually identified where they had spawned. It was, until the invention of the satellite tags, we could only guesstimate where they spawned, you know. It'd be an estuary species, the first guess was they must spawn in the early summer or whatever, off the mouths of the passes. But apparently not, so.

**Art Morris** [01:25:41] But, you know, so, so there's a lot of things we don't know. One thing, we don't have that size. And I'm not sure that we could, if we knew exactly how they would spawn, I don't think we have the infrastructure to do that. It would be a tremendous, tremendous undertaking to do that. We just don't have the resources to do that at this point. Now, maybe someday somebody will come up with a way to do it, and keep fingers crossed that that happens. But I think if we ever got our hands on some juveniles, we could put them in places where they would do well. So put them back into those rivers and such. Even from what we got, there's some places we can put them in, that I don't think anybody would touch them for a while. So that would be, yeah, I think it'd be an interesting species to try.

**Art Morris** [01:26:34] But nevertheless, we just don't have the technology or science to do it yet, so.

**David Todd** [01:26:39] I see. Well, so given the declines that have been seen with tarpon, do you have any other thoughts about how tarpon stocks could be revived?

**Art Morris** [01:26:54] I got thoughts; I doubt that anyone would listen to me, but no. You know, well, I think the only thing we can do I think at this point, there's a, there's a... Let me back up here. There's a book I read. It's called, "Gulf: The Making of an American Sea". And it was a Pulitzer Prize winning book by the author. And I can't think of the author's name right

now, But, yeah, it talks about, basically, the heyday of fisheries in the Gulf of Mexico and other things. But back at the turn of the century, the 20th century, and even earlier before that, and what it looked like, what fisheries look like, what bird populations looked like, well, what the Gulf of Mexico looked like.

**Art Morris** [01:27:47] And prior to the invention of trawling and all that stuff, you know, you know, tarpon were everywhere and they made up a great sport fishery and red drum and red snapper, you could catch out of your backyard. I mean, just birds were everywhere, and blah, blah, blah.

**Art Morris** [01:28:10] And then, and then it talks about development and how all the birds and the fish left, and where there was riverine habitat, now there's concrete, and houses, and cities and everything else. And then, you know, you've got pollution and everything else and, you know, increased nutrients coming down the Mississippi and, you know any number of things that's happened over the last 150 years or more.

**Art Morris** [01:28:42] And getting back to that level, I don't think we'd ever be able to do that. But what we, about the only thing we could focus on, I think, today, in regards to not just tarpon, but all estuary species, is maintain freshwater inflows to these bays. And that not only benefits, you know, shrimp and crabs and red drums and spotted seatrout and things that are commercially and recreationally important, but it helps some of those species like tarpon that are a little more niche-oriented, particularly at a young age.

**Art Morris** [01:29:27] And so it's vital that we maintain that.

**Art Morris** [01:29:34] And, you know, right now, Corpus is looking for another water source right now. I don't know where they're going to do that, whereas fresh water is, for Texas, at least south Texas, is non-existent. We have used up all we can, and they're looking for more. And, but we have to have that to maintain our fisheries. And that is the number one thing in my mind, anyway, that we have to maintain, at least not do any more damage than we already have. And maybe we can hold on to some aspect of that.

**Art Morris** [01:30:20] And then secondarily, you know, if we could convince Mexico to not harvest them. They're not that good. They're not very good to eat. But then again, I understand you're trying to feed a lot of people that don't have many resources and they'll eat tarpon, and they're just much more valuable out there swimming around as a recreational species.

**Art Morris** [01:30:49] This is the thing: we've showed a good example of that red drum in Texas is that they're much more valuable to the state of Texas as a recreational species than they are a commercial species. And I think that if we could convince Mexico into doing that, and somehow reinforcing that, that through laws like that, that would be great too.

**Art Morris** [01:31:14] I don't foresee that happening anytime soon. We're making strides with cooperation Mexico. For example, sea turtles is a great example of cooperation there. But, fisheries, mmm, not so much so.

**Art Morris** [01:31:34] But, yeah, we do everything we can. We've, we've managed all we can do from Parks and Wildlife, at the state level. You know, the only way to keep one is if it's, I think, 85 inches long. You only keep one. And basically that rule's in effect just so if somebody was to catch one that broke the state record, they could keep it, and officially weight it in. But

there's nothing we can do on a management end from Parks and Wildlife any more for them. The only thing we can do is work, you know, the freshwater inflows and in cooperation with neighboring states and countries. But keep fingers crossed.

**David Todd** [01:32:23] Well, so one of the things I thought was really intriguing about your career is that you have not only worked in the field, but you've also worked to try to press for and explain changes in regulations and policies. And I would think that, you know, one of the big tensions has been this split between the commercial and the recreational fishery. And as you were just saying, we found that with red drum, it's worth more to the state as a sport fish. But you know, there was a commercial fishery for years and I'm curious how you managed to sort of bridge that divide. It must have been contentious.

**Art Morris** [01:33:22] Oh yeah, I was with the department when that happened, but there were people above my pay grade who were doing that. I remember House Bill 1000. It was the first day I came to work at Rockport, I had to walk through a picket line of fishermen that were gillnetters that were picketing against House Bill 1000 and they were right out in front of our lab over there. And, you know, that was, for those people, you know, making them, making them a sport fish was a big thing.

**Art Morris** [01:34:00] You know, they, while they didn't get a whole lot of money for them - I'm thinking on top of my head here, they were worth about dollar a pound or black drum were worth about a quarter a pound, if that, and trout probably worth about a dollar a pound too probably.

**Art Morris** [01:34:18] But you know we're looking at then, early eighties, there was a sport fishery that was growing. I can't speak to the numbers unfortunately, but I would guess it was probably around 500,000 licenses we sold, those sport fishing license we sold, compared to a smidgen of commercial license.

**Art Morris** [01:34:41] But the commercial people were at least accused of catching them greater than their share of the red drums. And even though at the time gillnets were banned in some systems, there was a lot of outlaw stuff going on.

**Art Morris** [01:34:56] And so there was a lot of contentious times there for those involved. And then afterwards, after House Bill 1000 passed, it was, it was, it was a while there before everybody got straightened out. But they learned. And there's currently a finfish group now is working on drum, black drum, worth probably over a dollar a pound today. And the fishery, the fish populations are in great shape. Maybe, probably they would like to have red drum back.

**Art Morris** [01:35:34] But at this point, the value to the state of Texas is far exceeding the commercial value for red drum. The recreational angling benefit to Texas, the last number I saw was like a billion dollar of impact, with a "B", to the State of Texas' economy. So, it's a big deal for Texas. So I know now we have a million anglers or did. We probably have more than that now. But a million anglers when I retired, and they contribute a lot to the economy of the State of Texas.

**Art Morris** [01:36:16] And, you know, lived through all that and evolved, so to speak. So, there again we're in good shape, I think, you know, overall.

**David Todd** [01:36:30] Well, that's encouraging. Well, you know, as kind of a related thing about trying to teach people about the natural world and maybe persuade them to change their mind or change their attitudes about things, I know you've been a long-time and award-winning member of the Texas Outdoor Writers Association, both for your writing and your photographic work, and I was hoping you could tell us a little bit about that part of your life, why you do it, and how you manage to engage the public in these kinds of stories and images.

**Art Morris** [01:37:13] Well, yeah, that's I guess that's the other thing I did. I think it was in '96 or '97 published my first article and got basically a monthly byline in a local fishing magazine that came out of Port Aransas and eventually got another one, came out Rockport, and worked my way up through the ranks, basically to start writing and publishing stuff for Texas Parks and Wildlife magazine and had some stuff show up in some more national magazines.

**Art Morris** [01:37:48] But it was always, going back to that challenge of dumbing up the science so people would understand. I think that's where I really get going there. And also, we were having, you know, we've been, you know, fighting trout wars most of my career. There's been a lot of, a lot of changes being done, and red drum for that matter, and flounder and other species as well. So, there was a lot of need to get the word out why we were doing these things and get it to the public in a less formal presentation, than going to a scoping meeting or, you know, coming here to talk to a biologist or something, which is often awfully dry presentations typically.

**Art Morris** [01:38:47] But, so, I saw a need for that, I guess. And I like doing it, and I guess I got a little bit of recognition for some of the work at that. It was one of the many means of getting the word out, of providing outreach, you know, help the public with this, help them understand. And that was just one of the many tools I used. It worked out pretty good for me.

**Art Morris** [01:39:22] I wrote about a lot of different things, wasn't always fisheries management. Diamondback terrapins, in fact, was one I wrote for Parks and Wildlife magazine that I really enjoyed writing. It was kind of another little species, charismatic species that I liked, and grew to like at least, kind of stemmed from the abandoned crab trap removal programs. So there was a tie-in there, you know, that in itself was a good tie into why we needed the abandoned crab trap removal program. It was, like I said, there was a method to my madness, if I go back and think about it a little bit.

**David Todd** [01:40:03] Well, let's talk about one of your other endeavors. Aside from writing and photography, I think you also do some artwork. It's, I think you describe it as, "fish heads". Tell us about that.

**Art Morris** [01:40:20] Yeah, I have these things I call "fish heads". They are photographs of fish heads, real fish heads, live fish heads in various poses or whatever. And what I've done with them is basically taken Photoshop and messed with them and made these, created these works of art. They're fish heads.

**Art Morris** [01:40:52] One of the first things I did was with that, I call it, "technology", that discovery, was for the Tarpon Observation Network, I actually made a poster, that was basically an incentive for, or a souvenir, for your participation in the program, you got a free poster. And what it was is basically a whole bunch of tarpon there, that were, the original photographs is of them laying in an ice chest. And I just took a picture of that. And then I recreated it and then made a poster out of it. They're pretty cool, I may even say so myself.

**Art Morris** [01:41:36] And anyway, from there I kind of went on and did fish heads, a few lizard heads and such, and it's just kind of a creative release for me, I guess. I sell one occasionally, and we give them out as Christmas gifts or whatever, you know. It's just one of the things I do, you know. It's all about fish, just another way of living on fish, I guess for me.

**David Todd** [01:42:08] Well, that's interesting.

**David Todd** [01:42:11] So something else I thought was really interesting about your background and maybe the attitude you have about the outdoor world. I don't, of course, don't really know that, but maybe you can tell me more, is that, as you said, you have some Creek Indian heritage and I was wondering if, you know, growing up in the Native American world, having some connections there, might have affected how you view the work and life that you've led.

**Art Morris** [01:42:47] Yeah. Well, yeah, I think that, you know, I think all Native Americans have a kind of a special, innate connection with the environment around them. I like to think that anyway. Certainly, for many tribes, nature is their life, their world. That's their niche. It's their food, their shelter. It's, it's their brethren and stuff.

**Art Morris** [01:43:21] And I guess that, you know, kind of in the back of my head is one of the things that kind of drives me. I used to have in my office a little sign that said, 'We're not protecting the environment for us, we're borrowing it from our children' or something like that. And I can't think of the exact term now. But it was an Indian term, proverb, that resonated with me at least. And I like to think that that's what I did most of my life. And I think part of that at least came from my Indian heritage.

**Art Morris** [01:44:23] And certainly it was ingrained in me. After, you know, working with the Department for years and going to school and things, it all came together, I had a long career, and really proud of that happening, real proud having the opportunity to participate in a lot of things that were done on the Texas coast in a time we were developing all these programs that you see today. That's, that was big on me.

**David Todd** [01:45:06] You know, it's always interesting to hear, you know, the, what people's, I guess, attitudes and ethics are behind all the rules and regulations and projects and days in the field and days in hearings. You know, there's something that, that drives all this.

**David Todd** [01:45:30] So thanks for sharing that.

**David Todd** [01:45:32] And I just had one more question of and that is, "Is there anything you'd like to add?" You know, we certainly covered a lot of ground, but is there something that maybe we overlooked and that you'd like to mention now about tarpon or just more generally about wildlife conservation in the state?

**Art Morris** [01:45:52] Well, I mentioned earlier I was proud to be part of that you know. A lot of the conservation efforts that have occurred have occurred in the last 40 years or so. You know, the Endangered Species Act wasn't signed until 1973 or so. So, you know, a lot of what we see today as far as wildlife and fisheries conservation as has occurred in my lifetime. In your lifetime, it's, we're living at a good time, or at least as best as we can, given the resources we have today.

**Art Morris** [01:46:34] And it is, I am most proud that I can go out in my backyard and catch a little bit of redfish damn near every time I go out there. I go target trout and I catch a limit of trout. These things, I remember a time in my career, you couldn't, you just couldn't count on that happening. But you can today and I think one of the major things is that we've produced, Parks and Wildlife, has produced a good product, and we have a lot of people in the state of Texas that are conservation-minded and they supported that and supported us in those efforts. And together we have, we are in great shape in the State of Texas, and I hope that continues.

**David Todd** [01:47:34] Yeah, that's nice. We're on a roll. A lot accomplished. Maybe more good stuff to come.

**David Todd** [01:47:44] Well, thank you so much for all your contributions over the years and just for your willingness to share some of these stories here today. I really appreciate it.

**Art Morris** [01:47:55] Okay, man. My pleasure. And I'm stoked that we were able to sit down and do this and that you thought of me or got wind of me or whatever. And I should see the final product.

**David Todd** [01:48:16] Well, you bet. I'm sure it'll be good. And speaking of products, I'd love to, if you could share a picture of one of your fish heads, I'd love to see it.

**Art Morris** [01:48:28] Yeah, I'll email you one.

**David Todd** [01:48:30] That'd be great. Hey, thank you so much. Art, good to talk to you.

**Art Morris** [01:48:35] All right. Thank you.

**David Todd** [01:48:36] You take care.

**Art Morris** [01:48:37] Okay. Bye, bye.