

**TRANSCRIPT**

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**David Todd** [00:00:01] Well. Good afternoon. My name is David Todd, and I have the privilege of being here with Dr. Charles DeYoung. I think some people call him Charlie.

**David Todd** [00:00:11] And with his permission, we plan on recording this interview for research and educational work on behalf of 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 located at the University of Texas at Austin.

**David Todd** [00:00:33] And, I want to emphasize that he would have all rights to use the recording as he sees fit.

**David Todd** [00:00:38] And, before we plunged on, I wanted to just ask Dr. DeYoung if that's okay with him. Does that sound like a good arrangement?

**Charles DeYoung** [00:00:48] That that does.

**David Todd** [00:00:50] Okay. Well, it is, let's see. Thursday, August 22nd, 2024. It's about 02:05 (I have) Central Time.

**David Todd** [00:01:04] As I said, my name is David Todd, and I'm representing the Conservation History Association of Texas. And I'm in Austin, and we are conducting a remote audio interview with Dr. DeYoung, who is based in the Kingsville area, I believe.

**David Todd** [00:01:22] And, just as a short kind of precis about him, Dr. DeYoung is a research scientist and a professor emeritus at the Caesar Kleberg Wildlife Research Institute, where he also was the Institute's co-founder and first director. Dr. DeYoung is particularly well known for his research and teaching on white-tailed deer in South Texas, although, of course, he's done lots of other work as well.

**David Todd** [00:01:50] Today, we'll be talking about Dr. DeYoung's life and career so far, and especially focus on what he can tell us about the white-tailed deer, especially in its Texas range.

**David Todd** [00:02:02] So, with that, little introduction, I wanted to thank you once again for spending some time with us and telling us about your life and career and some of your perspectives.

**Charles DeYoung** [00:02:14] You bet.

**David Todd** [00:02:15] All right.

**David Todd** [00:02:16] Well, I think a good place to start would be with your childhood. And I was wondering if you could point to any people or events, in your early days, that might have gotten you interested in wildlife, deer, science - anything along those lines?

**Charles DeYoung** [00:02:35] Sure. I had an unusual, beginning of my interest in wildlife. A lot of people of my generation got started in wildlife because they liked to hunt and fish and so forth, and typically they're introduced by a relative, a parent, grandparent, uncle, and so forth. And, that wasn't really the case with me. I guess I just organically became interested in wildlife. When I was a teenager, we lived in a rural area near Victoria, in Victoria County. And, I would just wander around neighboring pastures and so forth, looking for animals and so forth.

**Charles DeYoung** [00:03:34] And, my dad didn't hunt. He didn't discourage me from hunting, but he wasn't interested in hunting at all. And I guess, really the main introduction to the outdoors I had was fishing in the San Marcos River with my maternal grandfather. And, I spent a lot of time in the summers, growing up with him. And, the river was walking distance from his home in Martindale, Texas. And, we would set out, throw lines and trot lines for catfish and so forth. And that was really the only relative introduction to the outdoors.

**Charles DeYoung** [00:04:23] But, I think mainly I just organically got interested.

**David Todd** [00:04:31] Did you have any peers that that shared an interest in exploring those pastures or going fishing?

**Charles DeYoung** [00:04:38] Not really. Except with my brother. My younger brother was four years younger than me. And we would often, he would often tag along with me. But, no, not really any that I recall.

**David Todd** [00:04:58] Okay.

**David Todd** [00:04:59] Well, as you were wandering around those fields near Victoria or near Martindale, do you recall your first sighting of a white-tailed deer?

**Charles DeYoung** [00:05:12] Yes, it was at our place near Mission Valley in Victoria County. And, it was in a pasture behind our property. And, I jumped up a small buck and three does. And I think that was the first deer in the wild that I saw.

**David Todd** [00:05:39] Was that a shock and surprise, or was that something that seemed all in the course of a normal day's tour around the countryside?

**Charles DeYoung** [00:05:48] No, it was pretty much a surprise, because deer were very rare in that area at the time. And so, it was unusual.

**Charles DeYoung** [00:05:59] All right.

**David Todd** [00:06:01] Well, so, you know, some people get their introduction to the outdoors through, you know, just walking around seeing what the neighborhood has; some people learn from their kin. I'm curious if public media, you know, books, magazines, journals, TV shows, movies, any of those kind of public media outlets might have played a big role for you in getting interested in the outdoors and science and wildlife.

**Charles DeYoung** [00:06:35] Well, no, not really. I mean, I was an avid reader growing up, but mainly I read Louis L'Amour Western novels and things like that. And, I didn't. Another unusual thing about me and my generation is I didn't grow up with a television in our house. I didn't have a television in our home until I got married. And so, there was no exposure there.

**David Todd** [00:07:09] Okay.

**David Todd** [00:07:12] So, another avenue for some folks is a classmate or a teacher or maybe a coach, somebody you encountered in grade school or in your case, you know, extensive years in college, grad school and so forth. Anybody from those school years that you might point to as a real inspiration?

**Charles DeYoung** [00:07:32] Sure. And, I probably ought to back up a little bit in that my father, when I was a senior in high school, and, you know, starting to think about going to college and he came home one day and somehow he had run across a local Texas Parks and Wildlife biologist. And, I mean I had never ... I didn't know such a thing existed. And he came home and he said, "Well, you know, you like the outdoors and all that, and that's something you might think of as a career."

**Charles DeYoung** [00:08:11] And, that was really the beginning of my pursuit of the wildlife profession, because I carried that on. And I went two years to Victoria College, a community college there, partly because my mother passed away when I was a senior in high school. And I was the oldest of four children. So, I needed to hang around a little while to help my dad.

**Charles DeYoung** [00:08:45] And then I transferred to Texas A&M and got a bachelor's in wildlife. And then, I'm kind of leading up to my next influential person. Vietnam was hot and heavy then. It was 1969, January 1969, when I graduated from A&M. And, I just assumed I was going into the service. And the draft board got a hold of me after I graduated. And they sent me to a physical in San Antonio. And the exit interview I had with a physician said, "Well, you know, you kind of got a rapid heartbeat today. You're probably just excited, but, we're going to give you a three-month wait, and then we're going to give you another physical."

**Charles DeYoung** [00:09:45] And, well, that left me sort of in limbo.

**Charles DeYoung** [00:09:49] And so I had heard that there was some type of wildlife professor at Texas A&I then, in Kingsville, and I just went down there one day, and looked up his office, and walked into his office and asked him if he had any master's degree opportunities, which is pretty audacious because I didn't have a very outstanding undergraduate record.

**Charles DeYoung** [00:10:15] And it turns out that he had a grad student starting on a deer project that had just been drafted. And so, I was a warm body. And, within a week, I was in grad school at Texas A&I, working on a master's. And, I don't know why, but I never heard from the draft board again. I don't know if they lost my records or what happened.

**Charles DeYoung** [00:10:43] And so, I went on and got my master's, and he, Richard B. Davis was his name, professor in the biology department. And he was head of the Caesar Kleberg program at that time in the biology department. And, so I got my master's working on white-tailed deer at the Welder Wildlife Refuge, and he was very influential with me. He spent a lot of time with his students, and you could stop by his office anytime. He'd talk with you about

all kinds of stuff and give you books to read and talk to you about them. This was all outside of formal classwork.

**Charles DeYoung** [00:11:28] And so, he was very influential in my time there. And. I would have... actually, after my bachelor's degree, I would've taken a wildlife job if there were any available, but I couldn't get one. And so after my master's, the same thing. And I ended up going to Colorado State University and working on a Ph.D. on mule deer there.

**Charles DeYoung** [00:11:59] And, after I almost got through there, I came back to Kingsville on a temporary assignment and which worked into a faculty assignment. And so, that's sort of the history of my academic life.

**David Todd** [00:12:16] That's great.

**David Todd** [00:12:17] You know, I'm curious about this relationship with Dr. Davis. When you think of him, do you think of him as a professor, as a teacher, or more like a mentor, or maybe even as a friend? How do you ... what category do you put him in?

**Charles DeYoung** [00:12:36] Yeah. I wouldn't say "friend", because he was probably in his late '50s by then, and there was quite an age difference. But, mentor and teacher, yes.

**David Todd** [00:12:50] Okay. Well, so, maybe we as a segue to talking about deer, you could just perhaps do us a favor and introduce us to, you know, the general outlines of a white-tailed deer, maybe its life history and ecological niche. Is that something you could help us with just to get us started there?

**Charles DeYoung** [00:13:19] Sure. Yeah. Just give a brief thumbnail. They're very widely distributed from Canada, all the way into Venezuela, all through Mexico, Central America and into the northern part of South America. And if you put a Venezuelan white-tailed next to a Canadian white-tailed, they would look like two different species. But, they're actually all the same critter. And, so they're very, very adaptable animals.

**Charles DeYoung** [00:14:00] And in most of their range in the United States, they had been much, much reduced, during the late 1800s and into the early 1900s. And in Texas, that was true, too.

**Charles DeYoung** [00:14:18] Although there were deer left in southern Texas and on the big ranches. And, actually one of the big, nationally, one of the big success stories in conservation was restocking white-tailed deer all over the United States.

**Charles DeYoung** [00:14:38] And that was true in Texas. Most of them came from the Aransas National Wildlife Refuge or the King Ranch. And they were trapped there and then moved to release sites throughout Texas, and actually throughout the United States, and even the King Ranch, even the world. I mean there were white-tails who went to Mexico and Hawaii and all over.

**Charles DeYoung** [00:15:12] But, so restocking and reestablishment of white-tailed populations in former range areas that they had had is one of the big conservation success stories nationally and in Texas.

**David Todd** [00:15:30] That is an amazing story. I'd love to hear more about that if you could help us.

**David Todd** [00:15:36] Maybe just as a way to give some background to why restocking was necessary, it would be great to understand a little bit about what you touched on, that maybe in the late 1800s or early 1900s, the numbers and range sound like they quite reduced for white-tailed deer. And I'm curious, you know, what was it that was responsible for that?

**Charles DeYoung** [00:16:05] Basically no laws. And so, I mean, they could be hunted any time of the year, day or night. And, when laws started to be established in the early 1900s, there was very little enforcement of those laws. And so, they were just shot out, all over the United States and in most parts of Texas, except deep southern Texas.

**David Todd** [00:16:37] And so, I guess that's, like you mentioned it, it sounds like in some areas they weren't shot out. And why was that, that there was more protection in some areas and less elsewhere?

**Charles DeYoung** [00:16:51] Well, it was mainly because of these big ranches in South Texas, like the King Ranch, Kenedy Ranch, a number of others. They just didn't allow people on the ranch to hunt. And so, there was hunting, by guests, and employees and so forth. But it wasn't a real high harvest. And so, their populations did not get reduced.

**Charles DeYoung** [00:17:20] And then, of course, like Aransas National Wildlife Refuge with 40- something thousand acres at the time, near Tivoli, Texas, on the coast, and it was established in the 1930s and there were deer there. And so, they were protected, of course, because it was a National Wildlife Refuge after that.

**David Todd** [00:17:47] You know, it's interesting: you mentioned that, I guess in the early days there were laws against overhunting, and I guess seasons and bag limits, maybe. But, they weren't well-enforced. Was there just not a culture or there weren't enough staff, to force compliance, or the justices of the peace weren't responsible for those things?

**Charles DeYoung** [00:18:13] It was mainly that there were no game wardens. Or if there were, if, as they became gradually established by the state, they would have a very large area to patrol. And so, it was just very hard to really put any pressure on people that were hunting deer illegally.

**David Todd** [00:18:43] And what do you think led to, there being enough political support or funding to get enough game wardens out there? It sounds like that was a real shift to allow these deer to start being more sustainable out there.

**Charles DeYoung** [00:19:04] Well, I think, there's probably a number of things, but, you know, society gradually changed. And, as deer got reestablished, they were valued, you know. Hunting seasons at first, for decades, there were bucks-only hunting seasons.

**Charles DeYoung** [00:19:25] And, white-tailed deer are what we call a polygamous species. They don't form a mated pair. One buck can breed a number of does. And so, you can have a lot less bucks than does and still have a good, reproductive situation in the population.

**Charles DeYoung** [00:19:55] So, bucks-only seasons occurred for a long time until, in Texas, until the 1950s, when populations in central Texas, mainly the Hill Country, built up very high,

and you started to see during drought years, big die-offs of deer. And so, that led eventually to the establishment of doe harvests, and which was very controversial in the beginning.

**Charles DeYoung** [00:20:31] But then, you know, gradually things evolved and like today, doe harvest is, probably, maybe not quite, but probably approaches the buck harvest.

**David Todd** [00:20:51] Okay.

**David Todd** [00:20:53] Well, while we're talking about deer hunting, I think you touched on the start of hunting seasons and of course, the hiring of wardens and the beginning of antlerless deer harvests.

**David Todd** [00:21:09] Something else which I'd love to hear your thoughts about is the background and start for these wildlife co-ops. Landowner Assisted Management Permit system, I think is the long title for that. I think that started in the early '90s. Is that right?

**Charles DeYoung** [00:21:32] That's probably right. I don't, I haven't been closely associated with any co-ops. Except I've occasionally gotten invited to give a talk to them at their fall meetings. But, co-ops were and still are a way for a lot of small landowners (perhaps by "small", I mean, you know, less than 200 acres or so) by banding together they can have a management effect over a pretty broad area. And so, if you have 200 acres and you don't have a high fence around your property, then your deer are wandering over to your neighbor's deer and so forth. And so, it's very hard to do any deer management if your neighbors have different goals than you do.

**Charles DeYoung** [00:22:33] And so, that that led to the co-op system. And it also led to a way that Parks and Wildlife provided to get more permits for doe harvest and other things.

**David Todd** [00:22:52] Okay. You know, something else that I would be nice to explore with you is, in regard to hunting deer, is the practice, I guess, I think of it mostly in East Texas, maybe it happens elsewhere, but using dogs to trail behind deer and corner them and hunt them in that way. And I gather that was the culture and the tradition for many years, but then, gradually has been regulated. And I was wondering if, you know, you're familiar with that whole tradition or if that's something that's a little foreign to you. Anything you can tell us?

**Charles DeYoung** [00:23:36] Well, just generally. I've never lived in an area where there was dog hunting in it, but, you know, I've heard some of the evolution that went on there as far as eventually prohibiting dog hunting in Texas. And I think it was just the culture was changing. Then it was people frowned upon that as being unfair to the deer.

**Charles DeYoung** [00:24:06] Also there were problems with dog hunters trespassing on property, you know, because their dogs didn't know the property boundaries and they would chase deer across more than one property and hunters would follow them. And so, people didn't like that if they were on properties that didn't value dog hunting for deer.

**Charles DeYoung** [00:24:37] And so, it eventually got banned.

**David Todd** [00:24:44] I've read a little bit about this idea of stock laws and that they might have figured into the gradual change in people's understanding of boundaries between different tracts and you know, where you were allowed to wander and where you weren't,

and, you know, who's obligated to keep their animals on their property and so on. Is there anything you could tell us about that whole shift in stock laws?

**Charles DeYoung** [00:25:17] You mean as far as cattle goes?

**David Todd** [00:25:20] Well, I guess cattle and hogs and so on. But I understand that it kind of fed into the idea that if you fence it, it's yours. And, you know, you have a little bit more of a culture of respect for those boundaries.

**Charles DeYoung** [00:25:36] Yeah. I think that's basically the way it evolved. Yes. And, also you'd have more control over your critters. And so, you know, if they're wandering over a wide area of several different properties, you might not get all your calves back, and maybe not all your cows back and so, I think, I think that all added in to it.

**David Todd** [00:26:06] All right.

**David Todd** [00:26:08] So, one last thing I wanted to ask you about hunting. And that is what seems to me a kind of a gradual evolution in the reasons people hunt. You know, it seems like at one point it was you were hunting for your larder. You know, you're looking for some meat, some venison, to put on the table.

**Charles DeYoung** [00:26:31] Right.

**David Todd** [00:26:31] And then, in more recent years, it seems like there's a new tradition where people are interested in the size of their rack and the idea of having a trophy to kind of commemorate that experience. And, I wonder if you could still walk us through that evolution.

**Charles DeYoung** [00:26:54] Sure. I think there's always been a fascination with racks going all the way back to indigenous people. But, if you went through that period when deer were greatly reduced, as we spoke of before, in the early 1900s and before that, then the heavy pressure was so heavy that most of the racks were on yearling bucks, one and a half year old bucks, that were growing their first antlers.

**Charles DeYoung** [00:27:31] And so, that combined with a lot more people wanting to, or maybe even needing to, supplement their diet with deer meat, like in the 1930s, when we were in the Great Depression, and a lot of people were pretty marginal on their food availability and having some venison was a big plus.

**Charles DeYoung** [00:27:58] And so there was much more, I would say, quote unquote meat hunting, you know, during those times.

**Charles DeYoung** [00:28:06] And then, we've become more affluent, as a state, and to some extent as a nation. But Texas is really made up of a lot of people interested in trophy deer, and that's true elsewhere, too, but not as much as in Texas.

**Charles DeYoung** [00:28:33] And, as people began to live more in cities, has been a big trend over the decades, as they acquired a little bit of wealth, they liked to buy a property out in the country or some distance from them that maybe had some deer on it and so forth. And they were interested in growing those deer out so they had bigger antlers and so, I think that all had a lot to do with it.

**Charles DeYoung** [00:29:09] A lot of this change has happened in South Texas. I mean, it's happened elsewhere, too, but, the last 20, 25 years, there has been a huge change in land ownership in South Texas, with people buying ranches of all sizes for, a lot of times, deer management, recreational purposes.

**Charles DeYoung** [00:29:34] And a lot of those properties, the cattle have been taken off of them. So, where a lot of these South Texas counties were big cattle-raising counties, that's not true so much anymore. There are cattle, but not to the size that it once was, because so many properties have been split up and sold for recreational purposes.

**David Todd** [00:30:04] Okay. That's fascinating that it sounds like sort of the culture of people and their attitudes about deer also reflects in, you know, what these tracts of land were being used for. You know, that the numbers of cattle and other livestock are declining, while there's more emphasis on raising deer.

**Charles DeYoung** [00:30:32] That's absolutely true. And a big factor in all of that was once Texas changed its property tax laws so that you could get an agricultural tax exemption based on wildlife.

**Charles DeYoung** [00:30:52] So, for a long time, people buying these properties, they had to run some cattle to get their agricultural tax exemption. But then, I don't know offhand the number of the year it changed, but it was several decades ago. You can now get a agricultural exemption based on wildlife. You have to, you know, present evidence that you're managing it and hit some markers with the appraisal district. And appraisal districts vary from one to the next about how strict they are with those rules and so forth.

**Charles DeYoung** [00:31:34] But after that came into effect, then these people that bought land mainly for recreation didn't have to run cattle anymore, and typically they didn't.

**David Todd** [00:31:47] Wow. That's so interesting, that the change in the tax law can I guess funnel lots of people's interests and dollars in different directions than formally.

**Charles DeYoung** [00:31:58] It made a huge difference.

**David Todd** [00:31:59] Yeah. Well, I apologize because I think I sort of veered off the order I meant to to ask you questions in, but, I'm really glad that we talked about some of these hunting aspects. And, I was hoping that we could just to sort of keep in some chronological order, that we might talk a little bit about deer translocation because I think you started this visit talking about how important that was in rebuilding deer herds. And, I gather that started in the 1930s in Texas. Is that right?

**Charles DeYoung** [00:32:46] There might have been a little bit in the '30s, but it mainly started in the '40s in fairly large scale, and really after World War II that it really, really got going.

**Charles DeYoung** [00:33:02] And then, a number of years ago, it was, Parks and Wildlife established a permit that we call "Triple T", and I'm not even sure I can remember what all the Ts stand for, but Trap, Transport, something [Transplant]. But, you could get permits to trap deer on a willing landowner's and move them to another landowner. And, a lot of that was done for perceived genetic purposes. Some landowners that had big deer were wanting to reduce their population. And rather than shoot them, they let people move them elsewhere.



And the people moving them thought they were getting better genetic deer for antlers and so on.

**Charles DeYoung** [00:33:57] But all that is has come to a halt now with the rise of Chronic Wasting Disease and the threat that it poses to deer in Texas and elsewhere. And, so, I think the Triple T permit is pretty much dead. And so, there's not much moving deer around except by deer breeders, who are still able to do that. But they're heavily regulated in how they do it.

**David Todd** [00:34:35] So it sounds like a lot of the translocation of deer was done, if I'm following you, from one private landowner to another. And I was wondering if the state had any role in trying to move deer from one location to another, or if Fish and Wildlife did. Was there any sort of government role?

**Charles DeYoung** [00:35:02] Not since, you know, the late '50s and '60s when the restocking was going on, putting deer where they had been wiped out. But then these Triple T programs that I mentioned, they didn't have any role in that except for regulating them. You had to get permits and there was inspection of the property where the deer were being moved. And the biologists would make some kind of determination if the receiving deer population could stand more deer in the area. And, so, they had a big role there.

**Charles DeYoung** [00:35:55] And then when CWD started showing up here and there, you had to test a number of your deer. You had to actually kill them and test a number of deer for CWD before they would give you a permit to move live deer.

**Charles DeYoung** [00:36:15] And now it's evolved to where it's just too dangerous to move them around.

**David Todd** [00:36:25] Okay.

**David Todd** [00:36:28] Well. So, in the old days before, Chronic Wasting Disease shut down this movement of deer, translocation of deer, I'm wondering if you could describe how this was done, just the mechanics of moving deer from one place to another. I mean, I know it's hard enough to herd and pen and move cattle, but how is it done with deer? You know, what can you tell us at all about the net guns, and drive-nets, and so on?

**Charles DeYoung** [00:37:06] And yes, you basically hire a helicopter company. And there's a number of them that provide this service. And, then you get a crew of people and the helicopter company nets them. And, they land. The gunner hops out, ties their feet. They have a, usually, they have a ground crew, often on four-wheelers that come up and pick up the deer and take it to some central processing area where they maybe collect data and so forth, and then take the ties off the legs and put them in a trailer.

**Charles DeYoung** [00:37:51] And deer move very well in a trailer, if the trailer's enclosed and they can't see out, and especially if it's dark in there, you put them in there and they just, they'll just lay down and they're amazingly calm in that situation.

**David Todd** [00:38:14] Okay. Well, so, I guess sort of a related thing about, you know, paying for, investing in, capturing and moving and releasing these deer, you should be able to control them once you release them. And I'm wondering if you can help us understand the history of these high-fence operations, which I guess have become more common and widespread in recent years.

**Charles DeYoung** [00:38:48] Sure. Well, there are millions of acres in Texas that are high-fenced. I don't know if anybody has a figure on the total acreage, but it's well up in the millions, and it's increasing every year.

**Charles DeYoung** [00:39:05] And it basically comes down to these people that are, we spoke of earlier, that are buying property, buying ranches for recreational reasons. And they want to be able to manage those properties. And if they have neighbors that don't have the same goals as they do, they don't like those neighbors that may be totally spoiling, or at least if it's a big ranch, at least, eroding around the edges of their property, their deer herds.

**Charles DeYoung** [00:39:49] And so, that leads to eight-foot fences, which are very expensive, but, they're very common. When we bought our ranch 20 years ago. We have a ranch in Jim Wells County. And it's a long and narrow ranch and it had a row of deer stands all down our west fence, some of them hanging over the fence, some of them where we had a cross fence into our property so they could see a lane into our property.

**Charles DeYoung** [00:40:34] And. You know, it was partly a budget situation, but I had to kind of wrestle with myself for a couple of years as to whether I wanted to put up a high fence. But, I eventually did, because I finally decided, well, I'm a deer biologist and I can't manage this property for deer because my neighbors are shooting every one they see, and maybe some in our property.

**Charles DeYoung** [00:41:06] And so, that situation multiplied by tens of thousands is how you get high fences.

**David Todd** [00:41:20] That's interesting and persuasive when it's from your own personal experience - the dilemmas you face there.

**David Todd** [00:41:30] So, I'm curious, I mean, as a deer biologist, how do you manage a deer herd with a confined piece of land and, you know, a certain number of animals, and eventually, I guess they become increasingly interrelated. And, do you end up with a genetic bottleneck or how do you deal with that sort of issue?

**Charles DeYoung** [00:42:02] You know, back in the 1970s, when I came back to Texas from Colorado, there were starting to be a few high-fenced places. And, that was a big concern back then: were we getting what we call "inbreeding depression"? Would this happen in these high-fenced areas?

**Charles DeYoung** [00:42:27] And that hasn't happened. I'm not aware of any documented inbreeding depression that has occurred. I think one reason is, we call them "deer-proof fences", but they're not 100% deer-proof. And so, even if the fences are in good shape, there's an occasional deer that gets over them, for whatever reason. And in my experience, it's usually when they're being pursued heavily by a truck or maybe a predator or whatever, and they leap up and hit the top of the fence and just flop over it.

**Charles DeYoung** [00:43:16] And so even a very tiny number of ingressions like that from outside deer make a big effect on preventing inbreeding depression. So, we haven't seen that in the high-fenced places, even small ones that have been high-fenced for 30, 40 years.

**David Todd** [00:43:48] That's really interesting.

**David Todd** [00:43:50] Well, I hope this isn't too much of a jump, but I did have a question I wanted to ask you about the history of deer health, and there are a number of questions that occur to me, but I thought maybe one place to start would be with the cattle fever ticks. And, maybe we could talk about Chronic Wasting Disease as well, and sort of get your perspective on what those two issues have meant for deer in Texas.

**Charles DeYoung** [00:44:28] Okay. Well, with the fever ticks, mainly a problem of South Texas, mainly in the counties along the Rio Grande, although, sometimes inland they pop up. And, you know, forever it wasn't thought that they could really subsist and reproduce on deer, that deer were not an ideal host for them. They would get on deer, but they couldn't reproduce.

**Charles DeYoung** [00:45:07] That has sort of changed. And I don't know if the ticks have changed or what, but now there's more concern about a deer carrying fever ticks, and also, even more than that, nilgai antelope are a big, big problem. They're more closely related to cattle and are a better host for the fever ticks. And so, they have caused a lot of problems because we've got 30,000 or more nilgai antelope wandering around in South Texas. And some of them wander a long way and can carry ticks.

**Charles DeYoung** [00:45:57] And so, at one time, you could quarantine a ranch and make the rancher round up his cattle and dip them in insecticide every so often to kill ticks. And that would pretty much, over a year or so period, get rid of the ticks on that property.

**Charles DeYoung** [00:46:21] But now, if you have deer and especially nilgai, wandering across the boundaries, then you can't get rid of them as effectively with dipping cattle. It certainly helps. But, it doesn't totally do it.

**Charles DeYoung** [00:46:44] And these fever ticks - Mexico has no control on fever ticks. And so, that's why the border counties get infected, by cattle coming across the border or across the river, or whatever.

**Charles DeYoung** [00:47:07] Chronic Wasting Disease is a really tough one. It's a pretty odd disease. It's not a live organism. It's not a virus. It's not a bacteria. It's a misfolded prion, which all animals have prions. We have them, so forth. And there's a human prion disease that kills people. And, of course, we all heard of a number of years ago about mad cow disease in Europe, which is a prion disease.

**Charles DeYoung** [00:47:44] And many years ago, if it still exists, there's a prion disease in sheep and goats called scrapie. And it's believed that the deer Chronic Wasting Disease, the deer prion disease, is probably a mutation of scrapie that jumped into mule deer at first, and then they have, by various means, gradually, spread all over North America in certain pockets.

**Charles DeYoung** [00:48:24] And, it's a fatal disease. There's no cure for it.

**Charles DeYoung** [00:48:32] One of the problems with it is, as far as making the public understand the danger of this disease, is that it is very slow-acting. You don't have a situation where hundreds of deer die, and their carcasses are laying around everywhere. And there's huge herds of buzzards and so forth.

**Charles DeYoung** [00:48:58] It's a very slow disease. It may take two or three years, or even longer, sometimes, to kill a deer.

**Charles DeYoung** [00:49:07] And so, you don't really, it doesn't really register with people.

**Charles DeYoung** [00:49:18] And as far as having a population-level effect to build up enough over the years to reduce a deer population, it may take 15 or 20 years to get to that point, to get enough of a percent of the population infected where it starts reducing the number of deer. And it certainly, before that, reduces the number of older deer because they don't get to old age.

**Charles DeYoung** [00:49:51] And that's a big problem as far as that trophy side of it goes.

**Charles DeYoung** [00:49:57] And so it's a big, big problem.

**Charles DeYoung** [00:50:01] And so a lot of it is associated, maybe not all, but a lot of it, is associated with the deer-breeding industry. And they are, they are very powerful. They're a small force, but they're a very powerful political force, and they have exerted huge pressure through the Texas Legislature on regulations by the Texas Parks and Wildlife. And, it still goes on today.

**Charles DeYoung** [00:50:47] The deer biologists in the Texas Parks and Wildlife Department spend a lot of their time, especially at the administrative level, but also at the field level, dealing with Chronic Wasting Disease problems rather than traditional management things that they would do.

**Charles DeYoung** [00:51:08] So it's a, it's a big problem.

**David Todd** [00:51:14] And what do you think the connection is between the deer breeding industry and then this prion folding problem with Chronic Wasting Disease? What do you think the link is there?

**Charles DeYoung** [00:51:29] Well, the link is that one way or another, they got, they get an infected animal and they're trading them around amongst themselves. And so, they get moved from one breeding site to another.

**Charles DeYoung** [00:51:50] And, it's a very slow thing. So, you don't realize that they've got it until, you know, it's in their population, and their population is infected.

**Charles DeYoung** [00:52:06] And, now there's strict testing programs. So, they have to, if deer die in breeding facilities, they have to be tested whether they had Chronic Wasting Disease.

**Charles DeYoung** [00:52:24] If deer breeders move deer, if they sell them to ranches or to other deer breeders, now they have to do a live test for Chronic Wasting Disease, which isn't all that great, but it's what we have. It's not all that accurate, is what I'm saying. They could have it, and it's not detected.

**Charles DeYoung** [00:52:51] But, so there's also some wonder about whether Chronic Wasting Disease can occur spontaneously. That is a big thing that really not known. It's never been documented, but you wonder about things.

**Charles DeYoung** [00:53:18] What has been documented is infected prions can be transmitted by birds. They can be transmitted, it can be spread through fecal matter and urine. And, there's concern about hay being made in infected areas and shipped to other areas with prion in there.

**Charles DeYoung** [00:53:49] Predators, scavengers, feeding on infected animals, and pooping and peeing around the area, spread these infected prions around.

**Charles DeYoung** [00:54:04] It's really not known how big of a dose a deer needs to get out of that.

**Charles DeYoung** [00:54:13] And so, people working in deer breeding facilities that unknowingly have infections are walking around in there. They're going maybe to other breeding facility or maybe they're going home. They're walking around in their area. They're spreading prions. It's not really known if that can, how big a problem that is. But it's been documented. It happens that they're spread; it hasn't been documented that animals are infected off of that.

**Charles DeYoung** [00:54:49] But so, it's just a huge problem that's very hard to manage.

**David Todd** [00:55:01] Yeah. And political and controversial. And it sounds like time-consuming for the Parks and Wildlife biologists. It's a dilemma.

**David Todd** [00:55:15] Well, I wanted to flip back, if we might, to talk a little bit about deer management, which I guess folds into, you know what the deer breeders are doing as well as, you know, a small landowner in a co-op. I noticed that your Ph.D. focused on deer range appraisal and that you later looked at short-term grazing issues. And I was wondering if you can help us understand some of your thoughts there, and particularly how deer management might be connected with habitat management. It sounds like they sometimes go together.

**Charles DeYoung** [00:55:59] Oh, absolutely. And, you know, habitat management is crucial to good deer management. And, a lot of it, and one way to think of it, is the more diverse plant communities are, especially the lower ones in the canopy, I guess you would say, the ground level plants and the shrubs that deer can reach to browse on. The more diverse they are, generally, the better the quality of the habitat.

**Charles DeYoung** [00:56:40] And so, things vary from place to place, but some of these ranches that have been, where the brush has been cleared for better cattle grazing, maybe, and have mainly grass and maybe a few regrowth shrubs that are not very diverse. And then some of these recreationists come along and buy that property that we've talked about previously and want to manage deer there. They have an uphill fight because the previous management has created a much simpler ecosystem as far as plants go. And so they're not as high quality as a more diverse situation.

**Charles DeYoung** [00:57:45] And people, a lot of people feed deer now in Texas, and in other states as well. And they claim that they can overcome that simplified ecosystem by feeding deer, and that's true to some extent. But our research has shown that if you feed and you have a diverse habitat, you can have higher deer productivity with both, than if you have a undiverse habitat and just feed.

**David Todd** [00:58:25] Right. Well, you know, in speaking of the supplemental feeding of deer, I've read that sometimes there are some sort of unanticipated, maybe unwelcome, side effects - that, you know, you may end up feeding both the deer and feral hogs and some of meso animals, you know, raccoons and so on. Do you think that that's an issue or a minor one?

**Charles DeYoung** [00:59:01] I think it's mainly an issue for the people paying the feed bill. And actually, we've done some experimentation with that, not with hogs because most people, if they have hogs, will fence them out. They'll put hog panels around the deer feeder sites that deer can jump over, but hogs can't. And so, hogs are not too big a concern.

**Charles DeYoung** [00:59:31] Actually, javelinas are a concern, not because so much because they eat a lot, but because they'll just camp out on the site and they'll chase the deer away when they come in.

**Charles DeYoung** [00:59:44] But, certainly raccoons. I forgot offhand what our record is of having a picture of the most raccoons in a deer feeder, but it's more than ten at a time on a feeder site, so raccoon populations can increase a lot.

**Charles DeYoung** [01:00:04] I don't know that that's a particularly big problem. I guess you could probably document some negative effects, but people don't usually worry about it. They just put up with it.

**David Todd** [01:00:23] Well, you've touched a little bit on the interplay of deer with hogs and raccoons and javelinas and I think you mentioned a little bit about the situation vis a vis cattle.

**David Todd** [01:00:36] I'm wondering what you think about the role of predators. You know, I know in some areas, people are strong believers in shooting coyotes and hoping that that will help their deer populations. And, I hear other people say, oh, that's... they really contest that. What is your view?

**Charles DeYoung** [01:01:00] Well, we've done a lot of work on that. And, in some cases, and I'm speaking mainly of South Texas research now, so south of San Antonio. In some cases, really intensive coyote control right before fawns are born can increase fawn survival.

**Charles DeYoung** [01:01:30] But it's really hard to do and you'll have to do it every year because coyotes are territorial. And so, if you take out most of the coyotes in an area, then the ones in the surrounding area are going to fill it in in the next year that comes around.

**Charles DeYoung** [01:01:57] We did a project in the late '80s up in western south Texas where we had two 10,000-acre experimental areas on ranches. They were about 30 miles apart. And, we intensively controlled coyotes on those 10,000 acres for three years, and we killed over a hundred coyotes a year on each of those.

**Charles DeYoung** [01:02:36] And, we would put out these scent stations, where you would put an attractive scent and then smooth that area where you could see coyote tracks, if they had come up there. So, that was our way of monitoring the coyote population.

**Charles DeYoung** [01:02:54] And, we could never get them all gone from those 10,000 acres, but we knocked them way down.

**Charles DeYoung** [01:03:03] And, in that experiment, we couldn't detect any difference in the fawn survival between nearby 10,000-acre areas we were monitoring, where there was no coyote control.

**Charles DeYoung** [01:03:18] And the next year, we would have to kill another 100 coyotes because they had all filled in. So, it was ongoing.

**Charles DeYoung** [01:03:27] Now there's other older research in South Texas where reducing, severely reducing, coyote populations, caused an increase in the fawn survival, like the research done in the '70s on the Welder Wildlife Refuge near Sinton.

**Charles DeYoung** [01:03:48] And so, I think of it by if you could really intensively control coyotes like in May and June, right before or during when fawns are born, some years you might increase fawn survival, but not always. But it's a very tough thing to do.

**Charles DeYoung** [01:04:15] Now people like to shoot coyotes and they feel like they're saving some fawns, and on average they're not. But it makes you feel good that you're doing something. Plus, people like to shoot things. So that's kind of what goes on there.

**David Todd** [01:04:40] So, I guess another question about deer and other animals on the landscape. I think you mentioned that there are some 30,000 nilgai out there. And I guess that's together with a good variety of, good number of axis deer and black bucks and, do you find that they compete with white-tailed deer or do they not have much effect on the white-tailed populations?

**Charles DeYoung** [01:05:11] Well, as far as the nilgai goes, there's not a lot of other exotics in South Texas with those nilgai. That's not the case in, like, Central Texas, where there's large numbers of free-roaming exotics. Not nilgai, but axis deer and sika deer in the western part of the Hill Country, even elk and aoudad sheep and a little bit of everything.

**Charles DeYoung** [01:05:47] In general, a lot of those exotic animals like axis deer will outcompete white-tails. And the reason is when times are good...

**Charles DeYoung** [01:06:03] Well, let me back up. White-tail deer have to have a pretty high-quality diet. They don't have a very big rumen like a cow. They don't have the same ratio of rumen size to body size, like a cow, which has this big old tank that they can fill up with low-quality forage, but keep it in there for some time and break it down and get nutrients out of it that way.

**Charles DeYoung** [01:06:38] The plant material passes through a white-tailed deer pretty fast. So, it has to be pretty good-quality stuff that they can get nutrients out of quickly.

**Charles DeYoung** [01:06:53] A lot of these exotic species like axis deer and sika deer and so forth, when times are good, they'll eat the good-quality stuff. But when times are bad, like during droughts, especially prolonged drought, they can do better on the low-quality forage that's available then, than can a white-tailed deer.

**Charles DeYoung** [01:07:20] And so, in those kinds of situations, the deer will suffer more than these exotics and they will outcompete them.

**David Todd** [01:07:32] That's interesting. And, over the course of, you know, long series of years where you have sort of boom and bust, you've got flush times and drought times. Do those kinds of pressures accumulate where the exotics get sort of the upper hand and the whitetails suffer?

**Charles DeYoung** [01:07:54] Yes. They can. Yes. Yes, absolutely.

**David Todd** [01:08:02] One last question, I guess, about deer, not so much in these big 10,000 and plus acre ranches, but more, in some of the urban / suburban places where deer are now being seen. And I'm curious if you can tell us how the deer arrived there, and why do they seem to be, at least from, you know, kind of an amateur perspective like mine, they seem to be flourishing, you know, wandering through neighborhoods and down streets.

**Charles DeYoung** [01:08:42] Yes they are.

**David Todd** [01:08:44] How is that?

**Charles DeYoung** [01:08:44] I had a grad student number of years ago in the City of Fair Oaks Ranch, north of San Antonio, funded a study on their on their deer, urban deer problem. They were having some, I forget the number - 100 or 200 deer killed a year on their streets. And so, it was a big problem.

**Charles DeYoung** [01:09:08] And, usually the deer get started because these subdivisions are adjacent to native deer range. And so, there were deer there before. And they increase in these cities, or these subdivisions, because of a lot of reasons, because people feed them. And, a lot of subdivisions have laws against that, but people still feed them. They find a way to. And then all the ornamental shrubbery and so forth is, some of it, is good deer food. And, they don't have much problem with predators. And, they do pretty well.

**Charles DeYoung** [01:10:05] And, it's a real hard thing for these communities to come up with a solution to control urban deer populations, because their residents will have violently different attitudes toward how you do that.

**Charles DeYoung** [01:10:26] And so, there may be a few success stories here and there, but there are a lot more that are just frustrated situations where they tried to do something but really, really can't be effective.

**David Todd** [01:10:47] Do you find that there are any sort of promising ways to control these suburban deer populations?

**Charles DeYoung** [01:10:56] Not really. Well, there are ways, but - sharpshooters, for one thing. And there are companies in the United States that hire out to cities and subdivisions to shoot deer. And, they have ways of doing it safely and in a very organized, safe way. But, a lot of the residents are opposed to that. And so, not every urban situation can get the residents to go along with that.

**Charles DeYoung** [01:11:40] There's been attempts with chemicals - chemical sterilization, or at least suppression that haven't been uniformly successful.

**Charles DeYoung** [01:12:00] I think some, at least one, of the big subdivisions around Austin was using a Parks and Wildlife permit called, TTP, not TTT, but TTP - Trap, Transport and



Process. So, what these people were doing, or I think there's still some of them are still doing it, like Lakeway. I'm not real up on the latest there, but I know in the past, they have professionals that will come in and they will trap the deer and sometimes trailer them somewhere else to kill them, sometimes kill them on the site. But they're, instead of shooting them with a rifle, they catch them and then, one way or another, they will put them down with a captive bolt gun like is used in livestock slaughter, which is just putting this gun device to their forehead and shooting the bolt into their brain.

**Charles DeYoung** [01:13:14] But that's also highly controversial and hard to get people to go along with.

**David Todd** [01:13:24] It's always interesting. What animals end up living side-by-side with people.

**David Todd** [01:13:33] So, one of the topics I thought was really interesting... I was looking at your extensive CV, and I noticed that your master's, if I'm not wrong, was on telemetry methods for studying deer behavior, and I noticed that you've thought a good deal about this, about how you do various kinds of track counts and spotlight counts and mark-recapture work. Can you help us understand how a biologist like yourself studies deer in the wild, how they do this monitoring?

**Charles DeYoung** [01:14:17] Well, that was my master's degree, you spoke of, back in the 1960s, '69, '70. And most of the field work was done in those two years. That was the very beginning of radio telemetry. We had a technician that was, an electronic technician, that was building these transmitters for us, and we put them on a collar and we were darting deer with chemicals and hopefully finding them alive, which wasn't always the case, and putting this radio collar on them.

**Charles DeYoung** [01:15:02] It was very crude in those days. We were really lucky if we got one to last three months. And a lot of them wouldn't last that long either. Nowadays, there's many companies that make telemetry devices for wildlife. And it's become very advanced. We're, some of my colleagues here, are doing ocelot and mountain lion research with radio-collared cats that are, the collars they're using, send a signal up to a satellite and they can get a report back in virtually real time as to where the animal is, and so forth.

**Charles DeYoung** [01:15:56] So, it's come a long way since my days at the very beginning.

**David Todd** [01:16:04] That's remarkable to be able to sense a truly wild animal, you know, that isn't telling you, but, maybe its collar is sending that signal.

**Charles DeYoung** [01:16:18] There's even collars with, you can you can get with a video cameras on them. So, you can monitor what they're eating and what they're seeing, by signals from the video camera.

**David Todd** [01:16:40] So, I recall, you know, in a co-op that we were involved with, that we did spotlight counts. And, I never entirely understood how those number of pairs of eyes was interpreted and, you know, developed into some sort of a count on populations and over a certain range. Did you have much experience with that and trying to count deer in that way?

**Charles DeYoung** [01:17:14] Yeah, I had a grad student back in the day that worked on spotlight counts. And, they're still used quite a bit by ranches and Parks and Wildlife biologists.

**Charles DeYoung** [01:17:32] And in my opinion, it's a very poor technique. The results are highly variable from night to night, and varies a lot by the time of night and so on. I guess maybe it's better than no data, but it's not much better in my opinion.

**Charles DeYoung** [01:17:59] But, yeah, there are ways to determine the area in your survey and the number of animals and come up with so many acres per deer and so forth.

**David Todd** [01:18:13] And then, did you have any role with these mark-recapture projects as another way to monitor deer populations?

**Charles DeYoung** [01:18:30] Sure. Yeah, there's various ways of doing that. But, this manuscript I'd delayed our interview for several months - I told you I was working on it. It was kind of a unique way, I guess, of doing mark-recapture. But we were capturing deer and putting a microchip at the base of their ear so that if we caught him again, we could scan that chip. It's kind of like people put in their dogs and so forth. They put a, they microchip their dogs for permanent I.D. Same thing, same thing.

**Charles DeYoung** [01:19:15] And, so we had mark-recaptured, like recapturing them in future times. And, but, we were doing it on the order of thousands. So, this particular project, we caught over 6000 deer, many of them several times over the years, sometimes seven times over seven years. So. And did, mark-recapture analysis? There's some very sophisticated mathematics which is beyond me, but, we hired a consultant to do our analysis with that. But there's some very complicated mathematics that goes into mark-recapture analysis.

**David Todd** [01:20:08] And the goal there is to get a really long-series data set of where these animals might roam, or what is it that you're most interested in?

**Charles DeYoung** [01:20:20] Well, it varies from study to study. And in the one I was talking about, we were doing a study of culling bucks and whether you could cull out deer with inferior antlers, and get a genetic increase in your population in genetics for antlers size.

**David Todd** [01:20:45] And is antler genetics something that's pretty predictable and easy to control for, or is it a little bit mysterious?

**Charles DeYoung** [01:20:58] Well, in this study I'm speaking of, managers widely think if they cull out bucks in their population, what they perceive to have inferior antlers, that they're increasing the, they're keeping them from breeding and increasing the genetics for antler size.

**Charles DeYoung** [01:21:19] Our research, which is very extensive, shows that you can't do it. You can't make progress in any reasonable decades of culling.

**Charles DeYoung** [01:21:35] And there's a whole number of reasons why that won't work. Obviously, it works in the pens, where you have total control over who's breeding and so forth. And obviously deer breeders grow huge antlers on animals.

**Charles DeYoung** [01:21:55] But in the wild situation, there's a whole series of things that are barriers to making any progress.

**David Todd** [01:22:06] What sort of examples could you give to why this culling might not work so well in a wild situation?

**Charles DeYoung** [01:22:14] Well, first of all, only one sex has antlers, so you can't cull the females. And the male and female parents are contributing an equal amount of genetics to the antler size.

**Charles DeYoung** [01:22:31] Particularly in a climate like South Texas, where we have very variable rainfall that's affecting deer antler growth, even if they're supplementally fed. And so, what you see is not what always what you get. The antlers you see on a deer are not necessarily their genetic potential for antlers. They might have been, I guess it's not a very scientific name, but they might have been stunted in some way in antler growth, and they might have good genetics for growing antlers.

**Charles DeYoung** [01:23:12] On the other hand, we occasionally get really large antlered bucks that don't have a very good breeding value because for some reason, they had very favorable conditions when they grew. Their mother produced a lot of milk or they started out in wet years, with plentiful nutrition or whatever. And so, there's a lot of environmental variability.

**Charles DeYoung** [01:23:46] And, another thing is the breeding system of deer. I spoke earlier about the early buck laws early on, where you were just allowed to shoot bucks and not does, because one buck can breed a number of does. But, in most of these populations that are managed, the sex ratio is not that different. There might be, one to two ratio of does to bucks or something like that, sometimes one to one.

**Charles DeYoung** [01:24:21] And in those situations, there are a whole lot of bucks breeding. You can't focus all the breeding like a herd bull and cattle. And so, most of the breeding is dominated by bucks that are older, but there's some breeding going on by yearlings and two year olds and so forth, even in these age-structured populations.

**Charles DeYoung** [01:24:55] So, no one buck produces a lot of fawns a year. And so, there's just a lot of, it's just hard to concentrate the selection on antlers for all these reasons.

**David Todd** [01:25:15] That's so interesting. I just, I guess it's endlessly frustrating and fascinating, you know, that a lot of this is just too difficult to tease out a definitive answer.

**David Todd** [01:25:29] And towards that, I thought that this might be a good time to just talk a little bit about research in general in wildlife. You know, I think as I mentioned in the outset of this interview, you were the founding director, back in 1981, at the Caesar Kleberg Wildlife Research Institute, which has really grown to be, you know, a major establishment for wildlife study and conservation with lots of grad students, lots of faculty, you know, lots of impact. And I was hoping you could tell us a little bit about the origins of the Institute. You know, that seems like an amazing thing for 40-odd years to come up to speed and have such an impact. How did it begin? Can you tell us that story?

**Charles DeYoung** [01:26:18] Yeah. Yeah, I'll try to make it fairly brief... Caesar Kleberg, in his will, created the Caesar Kleberg Foundation for Wildlife Conservation. And he wanted, and he

said in his will, he wanted it to benefit South Texas. And, most of the income into that foundation in the early years were from gas, natural gas production on the Encino division of the King Ranch, which he had an ownership interest in.

**Charles DeYoung** [01:27:02] And so, for many years, Texas A&I got \$40,000 a year from the Caesar Kleberg Foundation for wildlife research. And that's what I did my master's degree under when I came under Richard Davis, here to do, my master's degree. And, then when I came on the faculty in 1974, that was still the case.

**Charles DeYoung** [01:27:36] But then there was a change in the directors of that foundation, and Tio Kleberg got on that foundation. And some of the older directors died. And so, there was kind of a changing of the guard.

**Charles DeYoung** [01:27:54] So, when I was on the faculty in the mid and late '70s, at the beginning, we continued to get 40,000 a year, but then it went to 80. And then it went to 160. And then there were a number of us that saw this was increasing, but we were worried about accountability among the faculty that were getting this research money. And the old university way was to divide everything up equally, and there was no accountability that you had to publish your research, or you had to produce a certain product. And we were just worried that as the amount of money and support was going up, it was not being efficiently spent.

**Charles DeYoung** [01:28:51] So there were a small number of us, and the University president, Duane Leach at the time, was in some of those discussions that maybe we ought to create some kind of an institute to more efficiently manage and demand accountability on these funds.

**Charles DeYoung** [01:29:17] And so that led, about the time in the late '70s, early '80s, another long story, too long for here, I became Dean of the College of Agriculture. And, of course, I had been involved in all this wildlife research early in my years, and that wasn't something that set out to do. It was just something that circumstances created.

**Charles DeYoung** [01:29:51] So, Duane Leach, the president, called me up one Friday afternoon in late 1980. And he had become one of the directors of the Caesar Kleberg Foundation for Wildlife Conservation because Caesar Kleberg had put in his will that he recommended, he didn't require, but recommended, that the president of the university here be one of the board members. So, Duane Leach, our president, knew kind of what was going on in the Foundation, and he knew about our discussions about creating an institute.

**Charles DeYoung** [01:30:33] And so, he called me up one Friday afternoon and said, "Charlie, I need a proposal for an institute Monday morning." So, I spent my weekend. And we dug up that proposal here a while back and sent it around to all the current faculty. In the fall of 1980 - we got to wondering, how did I get that typed up, because in those days there were no computers. And you know, you wrote it out by hand and then handed it to somebody to type it up. And the only thing, and I don't remember, but the only thing I can surmise is my wife must've done it, because she worked in the secretarial field.

**Charles DeYoung** [01:31:25] But anyway, over the weekend, we produced the proposal that then got funded in '81 as the Caesar Kleberg Wildlife Research Institute. So, that's how it got started.

**Charles DeYoung** [01:31:44] And I didn't... I was dean of the college. I didn't want to be the director. I wanted to hire a director. And President Leach said, "No, no, I want you to run it." "And, well, I'm the dean of the college, I've got a lot of other stuff to do." "Well, no, I want you to run it."

**Charles DeYoung** [01:32:02] So, I became the first director. But I hired an assistant director that was really the director, even though I had the title of director.

**David Todd** [01:32:21] And the rest is history.

**Charles DeYoung** [01:32:23] That's right.

**David Todd** [01:32:26] Well. You know, it's really striking to me, as an outsider, how wildlife research has gotten so scholarly and professionalized over the years. And I was wondering if you can sort of give us that 30,000-foot view from your own career and maybe thinking about, you know, Aldo Leopold or, you know, some of the earlier forefathers and foremothers of this field of wildlife research. And you know, how time has evolved that discipline.

**Charles DeYoung** [01:33:15] Well, I think it's just evolved like other areas of science, you know, especially natural research, especially biological science. And so, a lot of the techniques that were developed in other areas of biology got adopted by wildlife biology. So, it kind of grew parallel like that.

**Charles DeYoung** [01:33:44] I think one of the biggest changes though, and wildlife has struggled for a long time to get more minority people involved in the field. And there's been a little bit of progress in that, but not a whole lot.

**Charles DeYoung** [01:34:05] But really that sea change that has happened is the increase in women in professional wildlife research and it's been tremendous. And, they're really good too. Our grad students, I mean, when I started out, having a woman grad student in the program was really, really rare. But now over half of our grad students are women. And we send out an announcement for a new grad student position, and, I'll guarantee you that of the top three candidates, two of them will be women, maybe all three. And so, there's been a large increase in women in the profession.

**David Todd** [01:35:08] Any speculation as to why either women feel more interested or, supported, or accepted.

**Charles DeYoung** [01:35:19] I don't know, partly just the way the culture has advanced with women becoming more co-equal in a lot of areas, partly probably because, us old wildlife biologists, people refer to us sometimes as "hook and bullet biologists" because most of us got into the field because we like to hunt and fish. And that's not so true anymore.

**Charles DeYoung** [01:35:55] And a lot of wildlife research is not done on game species. That's another big change that's happened. Early in my career, most of the wildlife research was done on quail, deer, turkeys, waterfowl, game species. But there's been a huge increase in research on endangered species and non-game species, and so forth.

**Charles DeYoung** [01:36:27] And so, a lot of the women, and actually a lot of the men, that get into the field nowadays don't come into it from a hunting background. And, so, that's changed a lot.

**David Todd** [01:36:47] That's really fascinating. You know, it seems like a very vital field that's evolving, you know, both with the kind of people that are attracted to it and the kind of work that they're doing, the animals that they're studying.

**David Todd** [01:37:02] So, you know, one of the things I thought was interesting about your career is that not only have you been involved in academics, but you've also been involved with policy issues. And I noticed that you had served on the White-tailed Deer Advisory Committee for Texas Parks and Wildlife. And I was wondering, you know, if you could share with us what some of the major policy questions you might have tussled with while you've been on that committee at Parks and Wildlife.

**Charles DeYoung** [01:37:35] Well, it was, it was... That's an easy answer, because during the few years I was on that that committee, it was dominated by deer breeding, and control and regulation and rules and so forth to regulate the deer breeding industry. And that was 80% of what we did during that time. It may be still that way with the present committee. I don't know.

**David Todd** [01:38:14] You know, it's intriguing. When I think about wildlife, I think about this idea of the public trust and that, you know, animals that are roaming free are owned and managed by the state.

**Charles DeYoung** [01:38:36] Right.

**David Todd** [01:38:36] As a trustee for the public. And yet, I guess for a lot of people who invest big dollars in buying animals or buying sperm, they're like livestock. It's a private asset. And I'm wondering how you've sort of tussled with those two kinds of pressures.

**Charles DeYoung** [01:38:55] Well, the law's still, basically, they're still owned by the state, even though they're in deer breeding facilities. And so, that's what gives Parks and Wildlife the authority, if they can get the political side to let them, that's what lets Parks and Wildlife regulate them.

**Charles DeYoung** [01:39:24] There have been a number of pushes in the state legislature to put them under the Animal Health Commission (I'm talking about deer breeders here). Others put them under the Texas Department of Agriculture. And that's actually occurred in some other states. But it's, so far anyway, it's not been, it's not happened in Texas. Parks and Wildlife still has authority.

**Charles DeYoung** [01:39:56] So, it's recognized that those deer breeders have a certain type of ownership in those animals, but they don't have total ownership.

**David Todd** [01:40:13] That's interesting. Sort of, I don't know if it's a stalemate or it's a public / private partnership, but, it sounds like it's in flux. Is that fair to say?

**Charles DeYoung** [01:40:25] It's not a partnership. It's more like a civil war. And there're very, very passionate people on each side. And, there is a lot of money involved. Especially the deer-breeding industry is one of the largest political contributors to the legislature, one of the very largest. When you think of all the other interests in Texas like oil and gas, banking, agriculture, on and on. Deer-breeding is way up there in the amount of money flowing into political contributions.

**David Todd** [01:41:15] That's intriguing to me, because I would think that with Chronic Wasting Disease, you know, they have a pretty existential threat there to their business model.

**Charles DeYoung** [01:41:29] Well, they do because of the regulation. But many of them don't view it as a threat. And there are biologists that either are sympathetic to the breeding industry or that are hired by the breeding industry that claim that it's no big problem, that it's always been here, and always will be here. And so, it's not something really to worry about. And so, there's a lot of that going on.

**David Todd** [01:42:08] Okay. So, this may be a kind of a related question: you were talking about privately managed deer. I'd be curious to hear your thoughts about private lands. I understand that you've served on the Wildlife Society's Private Lands Committee and as well as their Leopold Award committee and, you know, private lands are always a big deal. Such a large portion of the state is owned by private individuals. What do you think about the place of private lands in deer management?

**Charles DeYoung** [01:42:55] Well, it's huge in Texas, but that's not true of many other states. And the Wildlife Society that you spoke of is our professional society. And, you know, it's mainly made up of degreed wildlife biologists. And there's even a certification program for wildlife biologists that they oversee. But most biologists and most concerns of the Wildlife Society have to do with wildlife on public land, because particularly in the western states, you know, half or more of the state may be public land. And, even in the East, there's large, large amounts of [public] land with national forests, state wildlife management areas, other types of public land that are open for hunting, with a permit and so forth.

**Charles DeYoung** [01:44:08] And so, our situation in Texas is pretty unique. It's not to say other states don't have private land wildlife management going on, but in Texas it's the dominant thing. And Texas has some of the strongest trespass laws in the nation. And so, in some other states, you get caught trespassing and it might be like a low-level speeding ticket. But in Texas it can be serious, serious problems for people. And that all comes from the private ownership of land, which is...

**Charles DeYoung** [01:45:00] I mean you hear different percentages, but roughly I'm just going to say 95% (it's probably higher than that) of the land at Texas is privately owned.

**David Todd** [01:45:17] Yeah. And, so I guess there's an effort to recognize and reward people who manage their private lands in a responsible way. Tell me a little bit about this Leopold Award.

**Charles DeYoung** [01:45:35] Well, that that's really not connected directly with any private land issue, but that that is the major award of the Wildlife Society, our professional society. And so, there is one person that's honored each year, selected by a committee, that gets the Aldo Leopold Award. That's the ultimate professional award you can get as a wildlife manager, policy person, biologist, researcher or whatever.

**David Todd** [01:46:18] I see. Okay, I must have confused that with another award that is given out by another organization.

**Charles DeYoung** [01:46:26] There may be. You know, there's a Leopold Society or Leopold Foundation I think. And we have a Texas, there's state chapters of the Wildlife Society and the

Texas chapter of the Wildlife Society is a very strong one. Our annual conferences will have 6 or 700 people there. And, we give land stewardship awards.

**Charles DeYoung** [01:46:56] The Texas Wildlife Association, which is a, you know, a non-profit, wildlife Association. They give land stewardship awards. And there may be some other organizations as well. So, I think maybe either Texas Parks and Wildlife or Texas Parks and Wildlife Foundation also gives awards.

**David Todd** [01:47:23] Well, I guess lots of good things attach to Mr. Leopold's name.

**David Todd** [01:47:29] So, one of the things I wanted to ask you about private lands. You've worn many hats in the academic world. I see you were dean of the College of Agriculture at Texas A&M in Kingsville and then also dean of the College of Agriculture and Human Sciences. And yet you've also got this interest in and wildlife at the Research Institute. And I'm curious how you balance, you know, these two major rural agricultural uses of land. You know, on the one hand, maybe raising crops and sheep or goats or cattle. And then on the other hand, you've got wildlife and, you know, of course, quail and dove and waterfowl, but, you know, deer, I guess the, the 800-pound gorilla, so to speak, there. How do you look at that, that sort of dichotomy?

**Charles DeYoung** [01:48:37] Well, I don't. I guess I don't fully understand your question. You know, I don't have expertise necessarily in other areas of agriculture. We raise cattle on our ranch. But I'm not much of a cattleman. I like animals, and so I like to fool with them, but, I'm not, I'm not very, very good at the way we manage them and so forth. They're all always healthy and so forth. But, I don't manage them tightly for profit, I guess I should say. And so, I know a little about that, but I don't know much about the crops side of things, except that I like to raise a big garden every year. But, other than that, I'm not a farmer.

**Charles DeYoung** [01:49:34] So, you know, our ag college is, it's the same college, those two terms I served, that were separated by several years. Just the name had changed a little bit. But, you know, you just manage those the best you can. Support your people. Try to improve the quality, and so forth. And go on.

**Charles DeYoung** [01:50:09] But you don't necessarily have a lot of expertise in, you know, a lot of areas.

**Charles DeYoung** [01:50:15] So, you know our citrus center at Weslaco was under me, and I don't know anything about raising citrus.

**Charles DeYoung** [01:50:24] But, so, I'm not sure exactly how to answer your question, but, there's some rambling answers.

**David Todd** [01:50:34] No, no, this is, it's interesting. And, you know, it may have been a question you answered before. I mean, I think you referred to this introduction of the wildlife exemption that allowed folks to qualify for an agricultural appraisal, that 1-d-1 program, without actually having, you know, crops or livestock.

**Charles DeYoung** [01:50:59] Right.

**David Todd** [01:50:59] And, and maybe that's, you know, partly why you see more and more land, at least in my perspective, without livestock on it or, you know, row crops.



**Charles DeYoung** [01:51:16] That's exactly why. Yes.

**David Todd** [01:51:19] Okay.

**David Todd** [01:51:22] You know, you've been active with the College and the Institute. But, you've also, as I think we mentioned, been involved with groups like the Wildlife Society. And I'm curious what you've learned there about this role of the Wildlife Society or other non-profits in wildlife conservation. Any insights you want to share there?

**Charles DeYoung** [01:51:50] Well, it varies pretty widely. You know, the Wildlife Society is a professional organization. I guess their basic role is to support wildlife, professionals and. They also have a couple of positions at their offices near Washington, D.C., and they have a couple of positions which are, really, I guess you really could call lobbyists. But they work with Congress and the agencies that are concerned with wildlife, mainly trying to provide honest fact-based information to them about issues.

**Charles DeYoung** [01:52:45] So, a professional society is, you know, is different from some of the other non-profits like the Texas Wildlife Association, or there's a number of others that are advocates for endangered species or advocates for certain species and so on. So, there's a wide variety that try to influence policy, but the Wildlife Society is a professional society, which is pretty different than most of the rest of those, because we publish three journals, or two journals and a supplement to one of them, and hold conferences, where talks are given about current issues and current research and so forth. And so, that's different than what a lot of the other non-profits do.

**David Todd** [01:53:59] Okay. I guess it's more like a guild, you know, where you're trying to support the discipline and the people who do that kind of work.

**Charles DeYoung** [01:54:12] Exactly.

**David Todd** [01:54:12] So, I'm reminded of, of your story about the origins of the Caesar Kleberg Wildlife Research Institute and how it kind of started with this philanthropy that Mr. Kleberg set up through his will. And I imagine that in your role as an administrator and as a researcher, a fair amount of your time is spent writing grant applications and raising funds. And I'm wondering if you have any kinds of perspectives on the role of philanthropy and, you know, private dollars supporting research on wildlife.

**Charles DeYoung** [01:54:58] Right. The Caesar Kleberg Wildlife Research Institute is largely privately funded. We're a dominantly, privately funded, institute embedded in a state university. And, in a lot of ways, we're organized the same way that land grant universities like Texas A&M have a academic department, and then they have the agricultural experiment station. And so, we're sort of like the experiment station in the land grant model, except we're largely privately funded by individuals and foundations. Now, we have federal grants and we have state grants. But the majority of our money comes from private sources. And we have a very large endowment, that the interest of which supports a lot of our operations.

**Charles DeYoung** [01:56:07] And this is an extremely rare model across the U.S. And there aren't any, there are very few others like it. The Borderlands Institute at Sul Ross is very similar. And, they've sort of copied our model. And we do a lot of cooperative work, research,

with them. If we get a project in west Texas, almost for sure, we're going to partner with them because they're out there. And, they have really good, really good people.

**Charles DeYoung** [01:56:50] So, they have kind of adopted our model, but there aren't very many situations like ours as far as the funding support goes.

**David Todd** [01:57:03] Well, I imagine that having that kind of backing and stability must give everybody a lot more confidence that they can see through these, you know, complicated, many-year kinds of research projects.

**David Todd** [01:57:21] So, you've worn many hats, as I said - a wildlife biologist, a professor, a researcher, an academic, administrator. When you look back at that career, what do you see as the highlights and maybe some of the challenges that you've found?

**Charles DeYoung** [01:57:50] Well. I don't know that I could really point to any particular highlights. I mean, I've enjoyed it all. I've had a great career. I'm 78 years old. I'm still working a little bit because I really like it. And I'm only part-time by salary, very small part-time, actually. But, I'm not one of these people that wants to work till they're 65 and kind of I'm bitter, and I can't wait to get out of this place and all that. I enjoy doing this. This is my life.

**Charles DeYoung** [01:58:34] And, you know, I'll probably, gradually finish up the things I'm doing, but, I have emeritus rank, so, that, I think they'll keep giving me an office if I want to keep one and so forth. So, I'll probably hang around and harass people for a little while longer.

**Charles DeYoung** [01:58:57] But, I don't know. I can't really say there's any, you know, high point.

**Charles DeYoung** [01:59:08] But, you know, there were periods where, many years ago, where we were dissatisfied with our administration or this and that. Morale wasn't good. Stuff like that. So, you know, you go through stuff like that. But I've really been fortunate to get a whole host of awards for different things that people gave me and I appreciate those, but, I don't have a particular thing to point to.

**David Todd** [01:59:48] Okay.

**Charles DeYoung** [01:59:50] It's been great.

**David Todd** [01:59:53] Well, so here's maybe another couple of questions, and, I'll let you go. You know, a lot of our discussions have focused on the white-tailed deer, and I'm wondering, when you think about the animal, where do you think it gets its value for you? I mean, is it its ecological role? Or do you see that there's some sort of ethical kind of duty you feel to it, or is it a, you know, very personal, spiritual connection that you feel? How would you describe the value of a white-tailed deer in your eyes?

**Charles DeYoung** [02:00:35] To me personally, you mean?

**David Todd** [02:00:37] Yes, sir.

**Charles DeYoung** [02:00:38] Okay. Well, I don't, I don't know. I've never. I've never thought about it that way.

**Charles DeYoung** [02:00:50] You know, I've always worked on deer, and so it was always a main part of my career. I used to hunt deer regularly. I don't anymore. I enjoy raising deer. And on our ranch we don't sell hunts. We mainly ... it's friends and relatives, and I enjoy getting them nice bucks. And some of them just want does for meat. So, I enjoy that.

**Charles DeYoung** [02:01:26] But I don't know if I have some kind of spiritual connection. Maybe I do. I don't, I don't know. But it's just been what I do and what I enjoy doing.

**David Todd** [02:01:44] Do you, do you ... I hate asking this because I think for a lot of people who are in the scientific realm, it's an odd question, but, let me just throw it out there. Do you see white-tailed deer in an individual light or, you know, do you see them as having an individual soul or identity, aside from their role in a herd or a population or across a range?

**Charles DeYoung** [02:02:19] No. No, I never thought about it that way.

**David Todd** [02:02:28] Okay.

**David Todd** [02:02:28] Well, I see we're coming to the end of my list of many questions, and I just have one more, which is pretty open-ended. Did we miss something? Was there something that you wanted to mention, that I somehow skipped over, forgot about? Anything you would like to add?

**Charles DeYoung** [02:02:55] No. Not really. No, no. I've enjoyed it all. I like talking about deer and so forth. And you know, I've enjoyed our session, and I don't really have anything else.

**David Todd** [02:03:13] Okay, well, so be it. This has been wonderfully generous of you. I really appreciate your time today. And, with your permission, I will hit the "end recording" button. How about that?

**Charles DeYoung** [02:03:28] Okay, that sounds good.

**David Todd** [02:03:30] All right, I'll do that.