

TRANSCRIPT

INTERVIEWEE: Monika Maeckle

INTERVIEWER: David Todd

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David Todd [00:00:03] Well, good afternoon. David Todd here.

David Todd [00:00:06] I have the privilege of being with Monika Maeckle. And with her permission, we plan on recording this interview for research and educational work on behalf of a small non-profit group, the Conservation History Association of Texas, and also 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 at the University of Texas at Austin.

David Todd [00:00:35] And I want to emphasize that she has all rights to use the recording as she sees fit. It is hers.

David Todd [00:00:42] And before we went any further, I just want to make sure that that's a good arrangement for you.

Monika Maeckle [00:00:48] Sure. Sounds great.

David Todd [00:00:50] Okay. Well, let's get started then.

David Todd [00:00:52] It is Friday, July 21st, 2023. It's about 2:20 p.m. Central Time. 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 Monika Maeckle, who is based in the San Antonio area.

David Todd [00:01:18] Ms Maeckle is a Master Naturalist, a communications expert, an educator, a citizen scientist, a blogger, a photographer, an author. She founded the Monarch Butterfly and Pollinator Festival and the non-profit San Antonio Report. She runs the Texas Butterfly Ranch Program and manages rural property on the Llano River in Mason and Kimble Counties.

David Todd [00:01:47] Today, we'll be talking about Mr. Maeckle's life and career to date, and especially focus on what she has learned about the history of monarch butterfly study, appreciation and conservation.

David Todd [00:02:00] So with that little introduction, I thought we might launch with some questions. And perhaps a good place to start is sort of in a chronological way. And I was curious if you could tell us about your childhood and early years and if there might have been people or events in your life that influenced your interest in nature and in insects in particular.

Monika Maeckle [00:02:26] Well, thank you, David, and I'm really happy to participate in this project.

Monika Maeckle [00:02:32] I honestly didn't have a huge fascination with insects until my adult life, but I was always outdoors and I was a big nature lover. My dad was a gardener and came from a farming family in Germany. And so we always had a garden, and it was always our job to go out and pick the tomatoes or to go check on things in water.

Monika Maeckle [00:02:52] But my favorite thing to do as a child was to go down to the creek. We lived in suburban Dallas and my father was a homebuilder and so he built us a house near a creek. And every day I would come home from school, grab a snack and head down to the creek. We built forts and we had expeditions, and there was a crushed-up car down there that we all speculated Bonnie and Clyde had gotten murdered in because there were bullet holes in it and stuff.

Monika Maeckle [00:03:18] But I mean, it was always just about being outside and having adventures for me.

Monika Maeckle [00:03:22] And it wasn't until much later in life that I kind of really got fascinated with insects and monarchs in particular.

David Todd [00:03:34] So it sounds like your dad was interested in gardening. And did he encourage or influence you in some way, or was this sort of a solo pursuit for you?

Monika Maeckle [00:03:49] No, no, he totally influenced me. You know, we would go do fun things. We would go, you know, bug hunting or go out and water the grass or, you know, we had a couple, for the first six years of my life, we lived on a two-acre plot and we had two cows. And so we had to go fill the water for the cows and we'd have to navigate the sunflowers. And there was always all kinds of stuff going on.

Monika Maeckle [00:04:13] But my father very much encouraged us to participate with him in his outdoor activities. Also, a hunter. Went deer hunting a lot. I never got to, I never did that. And honestly, it's not my, not my thing. I have great respect for it, but I did it one time and it was like, "Okay, now I've done it. I can check that off the list".

Monika Maeckle [00:04:30] But I have great appreciation for the outdoors. I mean, we did everything from hiking and adventures to, you know, water skiing, snow skiing. Just being outdoors was always a very instrumental part of my upbringing, and I'm very grateful for that. And I still try to do it as much as I can, although lately it's just been so hot, you know, it's pretty hard, it's pretty hard to do until the sun goes down these last few months. So.

David Todd [00:04:56] I totally follow you.

David Todd [00:05:00] Were there any childhood friends that shared in some of these escapades?

Monika Maeckle [00:05:05] Yeah, we did. I had, you know, that was kind of what you did, at least with my group of friends and my brother as well. I mean, we went down to the creek and there were, you know, groups of kids, and we had this thing called the Swinging Tree, where you would jump onto this tree - you might hold onto with your arms and swing your legs or, you know, go upside down or or something. There was a, you know, like a fort with a tire where you could go into this hole. And there was a little cave down there. And there were just

all kinds of fun stuff like that. And just, you know, walking down the creek looking at the tadpoles.

Monika Maeckle [00:05:35] We had a fishpond in our backyard. My father built this little goldfish pond. And, you know, we would just sit by the goldfish pond and watch and feed the fish and watch the tadpoles hatch. And, you know, it was just kind of a very much the entertainment of our childhood was very often just an outdoors pursuit.

Monika Maeckle [00:05:56] And I worry about that a lot today. Like, you know, when I see so many people, and children in particular, are just glued to their screens all the time, it's like, "Man, you know, this is not going to lead to a good place." And I think that's one of the things that does motivate me in trying to get people enchanted by nature.

Monika Maeckle [00:06:13] And the monarch is such a good tool for that. I like to call it the "gateway bug" because it doesn't sting. It doesn't bite. It has this dreamy flight pattern and it has this very charismatic story and these beautiful orange and black dramatic colors. So it's very accessible and it's just a great way to kind of bring people in and get them to start paying attention to what's going on outside.

David Todd [00:06:37] Yeah, I get that.

David Todd [00:06:41] So you talked a little bit about your childhood and sort of family-oriented things. Once you got to school, whether it's grade school or higher education, were there any teachers or fellow students that, you know, shared this kind of interest in the outdoors and exploring?

Monika Maeckle [00:07:08] Well, I mean, I never really pursued it as a formal thing. I mean, I just had a natural interest in gardening and being outside and having adventures. Having adventures is the most important thing to me because I get bored if I'm not having adventures.

Monika Maeckle [00:07:24] When I was growing up, my father bought a 60-acre farm and called it, "The Farm", in Van Alstyne, which is about 40 miles north of Dallas, Richardson, Texas, where we lived, in Richardson outside Dallas. And on the weekends we would go to the quote, "Farm", and we would build fences and we had a garden there. We had, I think we had like 30 or 40 cows and we had a bull named George. And so it was just all about driving around in the jeep on a small plot, having adventures, basically, and, you know, fishing in a pond that we built.

Monika Maeckle [00:07:59] And just, you know, I remember there was one time when I had some girl, my girlfriends, we came and we had a campout and my father would help us go gig frogs. And we went on a bullfrog hunt. And I got all these frogs and put them in a trailer in the evening. And then the next morning they were all gone because they jumped out.

Monika Maeckle [00:08:18] So it was just, I don't know, it was just kind of like a very, just outdoor-oriented hobbies and amusements and adventures, basically. That was what really, really captivated me, was having these expeditions outside where you would find cool stuff and learn things and, you know, do things for the first time and be marveling at, "How, how did that tadpole turn to a frog?".

Monika Maeckle [00:08:43] So, yeah, and I think that, you know, drove me, the curiosity of all of that. I never formally studied biology or any of that, you know, which is what led to where I am now. But the curiosity factor was driven by nature and I think it's what led me to a career in writing, in journalism. And that's how I sort of process that information for myself, because writing helps me like process it, understand it.

David Todd [00:09:15] So, if I'm following this, a lot of your education and exposure really happened outdoors in an informal way. It wasn't in a classroom, behind a desk. Is that fair to say?

Monika Maeckle [00:09:28] That's exactly, that's exactly right. I mean, I was a good student, made good grades and was very into school. But when I got out of school, man, all I wanted to do is go out and play and go down to the creek. And that's what fueled me, driven by this curiosity and need for adventure and fun and, you know, new experiences.

Monika Maeckle [00:09:48] And the, you know, the insect thing didn't come until like, gosh, my fifties. I mean, I really didn't focus on butterflies until after.

Monika Maeckle [00:09:59] And by the way, I did want to mention that I'm not a Master Naturalist. I'm a Master Gardener. I've thought about getting my Master Naturalist certification, but I just haven't been able to make time for that. And I also feel like I'm my own Master Naturalist because of the way I spend my time and what I do.

Monika Maeckle [00:10:14] But yeah, it wasn't until my sons moved out and went off to college (I have, two, we have two boys, Nicolas and Alexander), and I had free time on my hands when I was working full time and I wanted to become a Master Gardener. So I took the Master Gardener and it was so much fun. And I learned a lot.

Monika Maeckle [00:10:33] Even though I knew a little bit about gardening, I really didn't understand nitrogen phosphate and potassium and what that meant and how the plants process all those things. And when my boys left, we had sort of an empty nest. I figured that gardening and botany and plants was a big enough area that I would never be not curious. I could never know at all. It would be a really great thing to focus on in this stage of my life.

Monika Maeckle [00:11:01] So I really focused on that. And then at some point in about 2004, I had my first experience tagging monarch butterflies, and that was literally life-changing for me. I had no idea this was happening. I was like, "I can't believe I've never heard of this". And a friend invited me to her ranch in Menard, Texas. My friend Jenny Singleton, who's my best friend. Peggy's sister, who'd been tagging monarchs since the nineties and she was like a horticulture major and was really more on top of that kind of thing.

Monika Maeckle [00:11:37] But we have a place near Mason, Texas, which is about 40 miles from Menard, and she called and said, "Hey, you want to come tag monarch butterflies?" I'm like, "What?" And so it was me and my husband and Rich Oppel, who was the editor of the Austin Statesman at the time, and his wife, Carol, were out for the weekend.

Monika Maeckle [00:11:57] And so, we all went to Menard and had this incredible experience where we went into this river basin. My friend Jenny had these ice chests set up. We had these PVC pipes, like 12-foot long PVC pipes with butterfly nets stuck in the hole of the pipe because the butterflies were going to be dropping from the sky and roosting in these

trees that were really tall. And so we pull up, you know, there's beer and there's snacks, and I'm like, "Well, where's all the butterflies?" And she's like, "Just wait."

Monika Maeckle [00:12:26] So, we waited, and as the sun set (this is in October), these butterflies just dropped from the sky. And all of a sudden, there were hundreds of these butterflies fluttering around, looking for a place to overwinter. And so, you know, the tall, stronger guys and gals, you know, took the PVC pipes and swooped and get, you know, maybe 20, 30 butterflies in the net.

Monika Maeckle [00:12:49] And then, you know, some folks would get the butterflies and put tags on them. There's a whole procedure to that, where you tag the butterfly and then record the data. And so we did that for the first time. And all four of us, I think, left that weekend going like, "I can't believe what we just did and I can't believe I've never heard of it before."

Monika Maeckle [00:13:10] So, for me, I literally went to work that following Monday and I could not stop thinking about monarch butterflies. And I started this deep dive into researching, you know, where they come from, you know, what's the history. And that just sort of led me down this trail that I've been on ever since. So that's how I got seduced.

David Todd [00:13:28] Okay, that's great. I can see that it was love at first sight - totally seduced.

David Todd [00:13:34] So one question I wanted to ask you before we dove into the monarch story too much is to ask you if there was any sort of informal education, exposure, that you might have had through books, movies, TV shows. Sometimes that's important for people. And was it for you?

Monika Maeckle [00:14:00] Um, I mean, I think probably the most influential book I read as a child was called "Caddy Woodlawn". Like, I honestly don't even know who wrote it, but it was a story of a woman, a young girl who was in a pioneer family and like, literally had all these adventures. And she was always getting into trouble, but she was always figuring out how to get out of trouble. And she just had all these adventures and, you know, was outside all the time. And I really related to her.

Monika Maeckle [00:14:30] But there wasn't really, I mean, it sounds weird, but as far as the outdoor focus and sort of like channeling my energies toward that, it really didn't happen until later in life when I had time to do it because I was a working mother with two children and I just didn't have time to do it. And when my sons went off to college, I was like, you know, what am I going to do? I always wanted to become a Master Gardener. And that's what really, you know, sort of pulled me into this more focus on the science and, you know, the mechanism and the system of how all these things happen, which is what I really find fascinating, is how it's the system.

Monika Maeckle [00:15:06] Everything's connected. And it's not about just the monarch butterfly. It's about everything. It's about the ecosystem. It's about climate change; it's about sustainability. And using the monarch as sort of this lens through which to look at those very complex issues to me is very satisfying and sort of satisfies my intellectual curiosity and also allows me to help other people understand, you know, what's going on here and how we can help or hurt that situation.

David Todd [00:15:34] Okay.

David Todd [00:15:36] So, you know, for those who aren't really familiar with the monarch butterfly, can you give us a brief layperson introduction to the life history and the niche that the monarch fills?

Monika Maeckle [00:15:52] Yes. I can do that. Well, basically, monarch butterflies east of the Rocky Mountains migrate annually from Mexico, through Texas, up to Canada, and back over multiple generations. And that typically starts in late February or early March. And it's happening earlier because of climate change.

Monika Maeckle [00:16:16] But all the monarchs, in the fall, migrate down to Mexico to this very particular patch of forest west of Mexico City in Michoacan and the state of Mexico. And there's all kinds of preserves down there and overwintering sites now that the Mexican government has set up for monarchs to be protected.

Monika Maeckle [00:16:35] And basically what they do is they go down there as the days get shorter and the nights get cooler and they just wait out the winter. And so it's really important in the fall when they migrate through that they have plenty of nectar sources to build up their lipids, or their fats, so that they can make it through the winter just like a bear hibernates, needs to be, get rotund, and have lots of fat storage so that they can make it through.

Monika Maeckle [00:16:59] And for monarchs, they go into a state of what's called diapause, which is a suspended time of reproductive activity, because typically if they migrate, they don't reproduce until the spring. And if they reproduce, they don't have the energy to migrate because they spend all their energy reproducing.

Monika Maeckle [00:17:18] So they go through, they start in Mexico in the spring, in March. They, when the days get longer and it's warm, they wake up and they have this big reproductive festival where they're all mating with each other. And then the females start flying north.

Monika Maeckle [00:17:34] And typically, oftentimes, we'll see here in south Texas where I live, which is again, one of the reasons that I got really kind of seduced by these creatures in the spring, they lay their first round of eggs in Texas on milkweed plants. And milkweed is a particular plant, in the Asclepius family. I think there's like 150 or 200 species of milkweed and they will only lay their eggs on that plant. And if that plant's not available, they're not going to lay eggs, they're going to keep flying.

Monika Maeckle [00:18:04] So when we have these crazy weather patterns of, like, you know, a late freeze or a really early heat wave and the timing of all of this is thrown off and the monarchs either come and the milkweed is not out of the ground yet because it's too cold, or they come and the milkweed already came, and we had a big hot wave and it burned up. Then they're going to continue to fly looking for this plant so they can reproduce.

Monika Maeckle [00:18:27] Because, as I learned in my studies, I did not know this one. Everybody knew this but me, is that the definition of success in biology is reproduction, reproduction of the species. So, their whole goal is to reproduce.

Monika Maeckle [00:18:40] So, they move through Texas. And in the spring, in March, they lay that first round of eggs on milkweed plants. They die. Those eggs hatch and for about four

days they're an egg. I'm sorry, ten days. It could be ten, it can be anywhere from four to ten days.

Monika Maeckle [00:18:59] Then they hatch and they become a caterpillar. And when they hatch, they're white. But when they start eating the milkweed, which has these very specific chemicals in it, they start to gain those colors - green, yellow, black. And that's the cardiac glycosides expressing themselves in the monarch.

Monika Maeckle [00:19:19] So they eat and eat and they go through four instars or four stages where they get so big, they shed their skin. They go to the next stage, they shed their skin. And then when they get to the fourth one, they shed their skin one last time when they become a chrysalis. Five stages, I'm sorry.

Monika Maeckle [00:19:38] So anyway, they become a chrysalis. They crawl onto a plant usually in like a semi-protected place, typically away from the milkweed plant where they were eating, and they form this gorgeous jade green chrysalis with little gold flecks on it.

Monika Maeckle [00:19:52] And then they're a chrysalis for, again, maybe ten days or so. Just depends on the climate and the conditions. And then finally, it takes about 28 to 30 days for this whole process to go through from the egg to the butterfly. They drop out of the chrysalis and they, you know, their wings are all soft and malleable and they need to hang upside down, suspended for about 2 hours as their wings form.

Monika Maeckle [00:20:16] And then eventually they start flying and then they keep moving again to perpetuate the life cycle.

Monika Maeckle [00:20:23] So, if there's nectar and milkweed around where they are, you know, they'll take advantage of that. But, typically they're moving north over the course of the summer and over the course of the year, anywhere from three to five generations of the monarch will make this journey over the months all the way up to Canada.

Monika Maeckle [00:20:42] And then in the fall, when the days start to get shorter, typically around the equinox and in September, (I can never remember if it's the equinox or the solstice), but when the days start to get shorter they get these cues from the sun, they start heading south again, and that's when they typically go into diapause where they're not going to reproduce, they're going to just keep flying and building up their fat stores until they get to Mexico.

Monika Maeckle [00:21:07] And so, that's why in the fall here in Texas, we see so many monarch butterflies, because all of the butterflies east of the Rocky Mountains that are making that journey, they have to funnel through Texas, typically the Hill Country where all those streams are. Typically, there's a lot of nectar in a decent year because that's the only place where flowers are blooming when it's that late.

Monika Maeckle [00:21:29] And so, we see all of these butterflies moving through here, and it's called the Texas Funnel because they funnel the butterflies down through here into Mexico. And then they keep flying and then generally they arrive in Mexico. And this is like the fourth or fifth generation of those butterflies that left Mexico. They arrive in late in October, November, early November.

Monika Maeckle [00:21:50] And they say that they typically arrive by Day of the Dead, which I believe is the first Saturday in November. But the day changes, but the first week in November, they're back. And so you can imagine that indigenous people would see these millions and millions of these butterflies every year arrive around the first week in November. And as a result of that phenomenon, they did project a lot of meaning onto that, social meaning and their cultural and spiritual connotations. And so the monarchs are very much associated with Day of the Dead and all kinds of different beliefs about ancestors coming home to visit or, you know, they're coming in to help us with the harvest - a ton of different associations that are there, which is very understandable given that every year the same time all these butterflies show up.

Monika Maeckle [00:22:39] I mean, what would you make of that? You would figure something out and you would tell yourself a story.

Monika Maeckle [00:22:43] And so anyway, that's the life cycle.

Monika Maeckle [00:22:47] And this wasn't fully understood until 1976, when Dr. Fred Urquhart of Canada, who'd been studying monarch butterflies for decades and was the first one to tag them, I think as early as I think it was 1953 when he started tagging monarch butterflies.

Monika Maeckle [00:23:06] He worked with a Mexican woman, Catalina Trail, known as Cathy Aguado back then, who was married to an American, Kenneth Brugger. And they, as volunteers, they called them research associates back then, we call them citizen scientists today, but they volunteered after seeing an ad in the Mexico City News, you know, looking for people to help figure out where do all the monarch butterflies go.

Monika Maeckle [00:23:31] And so, for two years they drove around Mexico and they finally, at some point in 1976, they found the roosting sites up in Cerro Pelon, and I believe that's the state of Mexico. And so they reported back to Dr. Fred Urquhart, and it was kind of like it was on the cover of National Geographic, and it's super famous in monarch circles - a photo of this beautiful Mexican woman standing basically in a wall of monarch butterflies.

Monika Maeckle [00:23:58] And nobody understood how that all worked or where they went until then, at least in the Western world of biology. So, presumably indigenous peoples knew something of it, but nobody had pieced together this mystery of this multi-generation migration going to this place they've never been before, which is just pretty amazing and not fully understood.

Monika Maeckle [00:24:20] Like how do they find their way to this place they have never been, because it would be kind of like me (my parents are from Germany), what if I could just suddenly find my way to my grandmother's house in Stuttgart? You know, without Google Maps? That would be pretty amazing.

Monika Maeckle [00:24:31] So, yeah, there's so many things about the monarch that's captivating like that, mysterious, you know, how do you find your way, the story to, you know, all the other things that I talk about earlier so.

David Todd [00:24:45] That's very helpful. Thank you.

David Todd [00:24:48] So one thing I heard is that monarchs, unlike other pollinators, don't really have a big role in, you know, providing support for, pollination for our agricultural crops. But, can you maybe help us understand what their niche is outside of what humans might find useful?

Monika Maeckle [00:25:15] Well, that's interesting. But I mean, they do provide pollination services, but they're not like mega pollinators, like bees.

Monika Maeckle [00:25:23] But my view is that the basic function of the monarch is I call it the "gateway bug", because it's so accessible, because it has this incredible history and story and associations. It draws people in to understanding what's going on in the world. You know, the monarch is toxic to pretty much, to most predators like birds. There's a couple of bird species that can eat monarch butterflies. But because of the cardiac glycosides that they consume in the milkweed plant, that is what gives them those bright orange and black colors, which typically in nature is a signal to leave me alone. Don't touch me, I'm dangerous. I don't taste good.

Monika Maeckle [00:26:09] And there's a really famous experiment that Dr. Lincoln Brower did called the "Barfing Blue Jay Experiment", where he fed a blue jay monarch butterflies and the blue jay then threw up, to prove that they don't taste good to predators. And that's typically what happens is a bird may eat a monarch butterfly once, but they'll never do it again because it tastes terrible to them.

Monika Maeckle [00:26:32] So, that's one of the reasons that monarchs have that dreamy flight pattern and they don't have to skitter and navigate and zigzag to get out of the way. And this confidence about them, which I think, personally, is another part of their charisma: the way that they fly is very different from other butterflies.

Monika Maeckle [00:26:47] So, my view, and again, I'm not a scientist, is that they are the gateway bug. They are here to draw us into the world, to let us understand better and to provide accessible, you know, an accessibility to understanding nature in a bigger way.

David Todd [00:27:09] Okay. So, I think I heard you mentioned that Fred Urquhart was one of the early ones to do tagging of monarchs. But I gather you've been tagging them since the 1990s. Can you tell us a little bit about how that's done and what it tells you, why it's valuable?

Monika Maeckle [00:27:31] Well, I've been tagging since, the first time I tagged was that incident in 2004 with my friend Jenny. But my friend Jenny has been tagging since the nineties and that's a really fascinating to me, super fascinating story about the evolution of tagging because, I mean, when you do the research and actually this is in my book that's coming out about Urquhart.

Monika Maeckle [00:27:53] They used to take a hole puncher and they would punch a hole in the butterfly's wing and literally glue a paper tag with a number on it to the outer wing in the hole. Where they punched the hole is where the glue adhered to itself through the wing. So you can imagine how tedious that was and how kind of like, in a way cruel, I guess. And also just for the butterfly, like hindering in terms of their flight, because it's got this one wing that weighs more and it's like leaning and it has glue on it.

Monika Maeckle [00:28:25] So, yeah, so Urquhart started out with these paper tags and it evolved.

Monika Maeckle [00:28:34] And eventually, I believe it was in the early nineties, they ceased the tagging program after they kind of figured out. I mean he was tagging and charting and he had these maps in his office of all the butterflies that had been recovered because he literally did it through the mail back then. I mean, people would find a butterfly with a tag and they would mail a letter to Canada where Dr. Fred Urquhart and his wife Norah were saying, "Hey, we found one, 2345 was found in Lawrence, Kansas", or something. And so he had this whole, you know, old school spreadsheet, I guess.

Monika Maeckle [00:29:09] But in any case, they stopped that program and then in the nineties, believe in 1995 or 1996, in the mid-nineties, the University of Kansas at Lawrence, Chip Taylor, and Monarch Watch was founded and they inherited the tagging program and they actually pioneered the more modern tags that we see now by working with, I believe, it was 3M Corporation on the particular adhesive that would work for tagging.

Monika Maeckle [00:29:36] And when you think about it, I mean you're putting a sticker on a butterfly's wing where there's thousands of scales. So, this is a very, it's not a simple thing. Like it's not like sticking something on a piece of wood or a piece of glass. I mean, these are lots of surface area, you know, challenges and things like that. And it had to be able to withstand heat and cold and rain and wind and just, you know, flying, and all that stuff. So, it had to be a very particular kind of adhesive and it couldn't be toxic either.

Monika Maeckle [00:30:05] So, ultimately, they did come up with this particular tag that's round and they figured out that if you put it on the discal cell of the butterfly, which is just one of the panes in the stained glass window of the wing in the middle, that does not affect the butterfly's flight, its center of gravity. And so if you put it there, then it's very unencumbering.

Monika Maeckle [00:30:30] So anyway, that started happening.

Monika Maeckle [00:30:32] And then so, Monarch Watch has been doing it since the nineties and I think they just celebrated their 30th anniversary like a year or two ago.

Monika Maeckle [00:30:40] But they continue to offer stickers. You can buy these tags, you know, starting in July or August. They'll send them to you as soon as the migration season begins. And then when the butterflies move through your part of town, you get a net, you get them in the net, you put the sticker on the discal cell. You record the name, the date, the time, the place, male or female, what's the sticker number. And you put all that on a spreadsheet and you can send it in.

Monika Maeckle [00:31:08] And Monarch Watch recently introduced an app for that, where you can take a picture of it that will load up. But I have not mastered the app. I think last year was the first year and I'm hoping to focus on that this year.

Monika Maeckle [00:31:18] But, and the data that they gather, I mean, it's been questioned, you know, in recent years in particular about, you know, how valuable is the data? I mean, what are we learning from monarch butterfly tagging at this point in time?

Monika Maeckle [00:31:31] And, you know, there are things, according to the science community, that, you know, we're still able to figure out - climate change and how our different climate situations are affecting butterfly populations in different parts of the United States or whatever.

Monika Maeckle [00:31:47] But again, I would go back to the point, the reason that, I mean, tagging to a great extent is a public engagement tool. When you have that very tactile experience touching the butterfly, putting the sticker on, sending it off into the wind, and then with the hope that it will be recovered in Mexico, which when the butterflies make it to Mexico and overwinter there, they do eventually die. And the indigenous peoples and the locals will go through the forest in Mexico through the roosting sites, and they will collect these dead butterflies.

Monika Maeckle [00:32:26] And so we can say, "Oh, wow, that's number X, Y, 2026 that was tagged in San Antonio on October 13." And so we know that that butterfly left here on one day and made it down there.

Monika Maeckle [00:32:40] So, I mean, I would argue that while scientists debate the value of tagging scientifically and there's both sides of that. Some say it's not as valuable or it has no value or it's outdated. Others will argue that, "No, no, that's not true. We have all kinds of interesting, you know, nuances that we're discovering and learning about monarchs and what affects them. And that's just canary in the coal mine or whatever".

Monika Maeckle [00:33:09] Or as they call them, "the canary in the cornfield".

Monika Maeckle [00:33:13] The fact is that for the public, it's an incredible way to reach people. And we do that at our festival every year. We, you know, we tag monarch butterflies and release them.

Monika Maeckle [00:33:24] And we even now started a program called "The Forever Journey Campaign", where we tag them in honor of someone who died. And so if the butterfly makes it to Mexico and we learn of that, we call that person up and say, "Hey, your butterfly that you tagged in honor of your grandmother made it to Mexico and was recovered at Rosario Sanctuary".

Monika Maeckle [00:33:42] And it's always just an incredible phone call to make. I've written about that a couple of times. I think we've had eight of our butterflies recovered since we started that campaign. And it's just always a joyous moment to be able to call someone up and tell them that the butterfly that they tagged in honor of someone who died, that they loved, made it to Mexico to continue the lifecycle.

David Todd [00:34:03] That is a really nice metaphor that they, this butterfly sort of carries on where somebody else has left off, and that there's some sort of a cycle that continues, even for somebody that you've lost.

David Todd [00:34:18] Well, so, one of the things I think would be interesting to know: you talked about this monitoring through tags to understand the route of the migration. Can you also talk about what monitoring these butterflies has told us about historic trends, you know, whether they're going up or down. And if they are going down, which I from what little I know, sounds evident. Why?

Monika Maeckle [00:34:49] Yeah, that's a whole other really contentious topic.

Monika Maeckle [00:34:52] And I haven't mentioned, but you know, there's another whole population of monarch butterflies along the West Coast in California that migrate up and down the West Coast.

Monika Maeckle [00:35:00] But the big migration that we hear so much about and the one that goes to Mexico is the east, what they call the eastern population, is basically all the monarchs east of the Rocky Mountains.

Monika Maeckle [00:35:10] And we've had some, we've had some really dramatic years. For example, in 2014 following the drought of 2011. And again, this goes back to like the thing that really intrigues me about all this, and keeps me interested, is just how it's a system. It's not just about the butterfly.

Monika Maeckle [00:35:26] It's like, "Okay, what happened?" We had a drought that was ridiculous. There was no nectar. That hindered the population. There was a much smaller population that went down and when they came back, you know, they had fewer offspring.

Monika Maeckle [00:35:39] And, you know, ultimately we had this terrible, terribly low population that was like historic and sort of kickstarted the whole monarch focus that we've all been witnessing since 2015.

Monika Maeckle [00:35:52] In 2015, President Obama, for the first time in history, issued a national pollinator memorandum about we need to do something for bees and butterflies and increase pollinator habitat. And then the National Wildlife Federation started the Mayors' Monarch Pledge program.

Monika Maeckle [00:36:10] And so we just had this sort of galvanizing effect of this, you know, perceived decline of the monarch that occurred in the wake of that drought of 2011 and 2014.

Monika Maeckle [00:36:21] But I have to say that there's more, there's a lot of debate about is it really happening like that? Because there's pockets in the United States where monarchs are really increasing. And we've seen some really interesting stuff in California where they had a really terrible year a couple of years ago, and now we've had this big boom in butterflies.

Monika Maeckle [00:36:44] And so, you know, one of my theories is that I really think that the monarch migration will cease to exist in my lifetime. And as the daughter of immigrants, I can help but project stuff onto this because my parents came over to the United States in 1950 with plans to go back to Germany after, quote, they made a million bucks.

Monika Maeckle [00:37:07] But when they got here, everything was so hospitable. I mean, there was a good way to make a living. My brother and I were born here and by the time you know, everything resolved itself, there wasn't really a good reason to go back to Germany because everything they needed was right here in Texas. And in this case, it was Dallas area.

Monika Maeckle [00:37:25] And so when I think about that, you know, the way the climate is changing, I mean, the reason monarchs migrate to begin with is because it gets cold and they keep moving south to get out of the cold and the days get shorter and they go down to this very, very Goldilocks climate at 10,000 feet where it's not too hot, it's not too cold, and it's not going to freeze, although there are freezes.

Monika Maeckle [00:37:48] But they can wait out the winter and wait for the perfect situation to mate and migrate north to find the milkweed and enjoy the kind of climate that encourages their reproductive cycle.

Monika Maeckle [00:38:01] But again, with climate change and everything that's happening, if all of those things exist locally, why would they take on the incredible challenge of migration?

Monika Maeckle [00:38:10] And again, there's a huge amount of debate about this in the monarch world that, you know, they have to migrate to sustain a healthy population.

Monika Maeckle [00:38:18] But there's more and more examples of local butterfly populations that are coming about. So, in California, we see, in this last year, we had a big increase in monarch butterflies in California after a terrible decline. And one of the reasons that's being speculated about why that happened was the planting of milkweed in gardens. And yes, some of that milkweed is not native to California, but the fact is it provided fodder and shelter and food for monarch butterflies to reproduce.

Monika Maeckle [00:38:49] And so, you know, that's another debate that's going on.

Monika Maeckle [00:38:52] So, again, there's definitely insect decline across the board because of climate change.

Monika Maeckle [00:38:58] But I have confidence that monarch butterflies will be fine eventually.

Monika Maeckle [00:39:03] They may not migrate. I don't think they'll continue to migrate in the numbers that we see now. But again, I'm not a scientist. That's just my personal theory and view. But everyone in the monarch world has a strong opinion about this. And not everyone agrees on what's what.

David Todd [00:39:21] I've heard speculation that the introduction of some of these Bt, you know, genetically engineered pesticide-resistant crops - corn, soybeans - have had an impact. And then ways of cultivation where a lot of the monarch food, these plants that were along rights of way and so on have been mowed and/or plowed, that that had an effect. Maybe it's not a critical one, but what do you think? Is that significant?

Monika Maeckle [00:40:00] Yeah, totally. I mean, it's a perfect storm. And between climate change, genetically modified crops and, you know, Monsanto is always vilified for having introduced GMO corn and Roundup and all of that. And that area where our corn and soy is produced in the middle of the country, is the primary breeding ground in the summer for monarch butterflies. So there was a period there where it was incredibly devastated and like there's literally nothing growing between the corn rows, whereas before you'd have all kinds of quote, "weeds", growing, including milkweed. And so when, you know, they just started indiscriminate spraying and dousing of our crop lands with Roundup occurred in the nineties and early 2000s, it had a huge effect on monarch butterflies and all insects.

Monika Maeckle [00:40:52] And so that's another thing that's contributed to this. You've got that, and then you've got, in terms of the eastern population, in Mexico, I mean, the decimation of the forest is a big issue where, you know, the place, that one little Goldilocks forest where

the monarchs roost, it's not a huge amount of land. It's a very particular climate with a very particular situation that you can't just replicate anywhere.

Monika Maeckle [00:41:15] That's also a place on the planet where people rely heavily on woodburning stoves to heat their homes, and wood and lumber are very much prized and there's not a huge amount, and there's not a huge diversity of economic possibilities for people who live there to make a living and support their families. And so they cut down trees.

Monika Maeckle [00:41:38] And one of the big theories that Dr. Fred Urquhart put forward was how the forest where the monarch roost, because it's so thick with these oyamel sacred firs creates a blanket effect. So, the canopy of the forest keeps the temperature just right for monarch butterflies. So, once you start to tear holes in that canopy forest and the cold air can come in, that's when you start to get into trouble.

Monika Maeckle [00:42:04] And we've had a couple of really historic and devastating freezes when the monarchs were roosting down there. And we're talking about hundreds of millions of butterflies in this small area. And then a freeze comes along, and just kills millions and millions of them. The forest floor is like a carpet of dead butterflies. And there's photos of this that are really disturbing and sad.

Monika Maeckle [00:42:23] So you got that.

Monika Maeckle [00:42:24] You got illegal logging in Mexico.

Monika Maeckle [00:42:25] And more recently, we've got avocado farming. Avocados are considered, you know, "oro verde", like green gold, because avocados are so in demand in the United States. And the perfect climate for growing avocados also happens to be the perfect climate for monarch butterflies to roost. And until recently, Michoacan, which is where many of the roosting sites are in Mexico, was the only state in Mexico that was authorized to export avocados to the United States, and that was a result of NAFTA. Recently, they authorized Jalisco to export avocados.

Monika Maeckle [00:43:02] But again, avocados are not that different, I guess, from monarchs, in that they require this very particular climate where it's not going to freeze, but it's not going to get too hot. It's going to be just right.

Monika Maeckle [00:43:12] And so what's happened apparently in recent years, is the cartels have taken over some of these farms in Michoacan where the roosting sites are and made people turn them into avocado farms because it's so lucrative.

Monika Maeckle [00:43:25] So you've got all these competing forces, you've got, you know, less forest where they roost, got less milkweed where they reproduce, and you've got climate change on top of that.

Monika Maeckle [00:43:40] And then you've got the usual stuff - urban development, pollution, pesticides, all of those things, so it really is like a perfect storm of variables that are contributing to the demise of the monarch butterfly migration.

Monika Maeckle [00:43:54] And those are all things that can be applied to all insects pretty much. I mean, not the migratory forest where they roost, but I mean, all, you know, urban

development, pesticides, pollution, all of those things are affecting all creatures and insects in particular, not just monarchs.

David Todd [00:44:16] So you're referring, I guess, to this kind of catholic, across-the-board insect decline that people are noting - you know, the windshield survey problem.

Monika Maeckle [00:44:30] Yeah. The New York Times called it "the insect apocalypse".

David Todd [00:44:37] And so the monarch is maybe part of that or sort of maybe the most visible part of that.

Monika Maeckle [00:44:44] Yeah, I mean, like I said before, I just feel like if people see fewer monarchs and they value monarchs, they cherish monarchs, they've been enchanted by monarchs, and then that gets them to start thinking about, "Whoa, how is this happening and what can I do about it?"

Monika Maeckle [00:45:00] Then that's incredibly valuable. And to me, that is the purpose, and one of the reasons the monarch is here for us is to sort of shed a light on that, and make us understand and hopefully take some positive action.

David Todd [00:45:13] Well, it does seem like there's been some positive work done. Can you maybe point to some of the conservation, restoration efforts that folks have undertaken, including yourself?

Monika Maeckle [00:45:25] We've been promoting, you know, just pollinator habitat at my website, Texas Butterfly Ranch, for about ten years now. But, in recent years, there's been just some really powerful books like Doug Tallamy wrote "Nature's Best Hope" and proposed the whole idea of a homegrown national park, basically proposing that people take half of whatever land they own and turn it into pollinator habitat with native plants.

Monika Maeckle [00:45:53] Or getting away from, you know, yards and lawn grass, which is the most ridiculous use of our resources, honestly, especially in hot climates like here in San Antonio or Arizona, or hot places where dumping 70% of your water supply to keep your grass green when it's 115 degrees out for three months in a row. I mean, it just doesn't make any sense at all. And that grass provides absolutely no environmental benefit to the ecosystem in terms of food, fodder, shelter for creatures that rely on it.

Monika Maeckle [00:46:26] So, there's been some really cool advances in terms of the mindset. I mean, we're seeing it more and more.

Monika Maeckle [00:46:33] My other book coming out, "Plants with Purpose", talks about 25 different plants that multitask in the environment. For so long, you know, and I know this as a Master Gardener. I'll never forget learning about when you go to the nursery, it's all about, quote, color, color, color. And it's all about beauty and looks and appearance. And it's not about ecosystem function. What is that plant actually contributing in terms of some sort of, you know, contribution to the ecosystem? You know, does it hold the land in place? Does it provide a host plant? Is it a nectar source? Does it provide shade? I mean, is it a place for birds to nest? Is it something to eat for squirrels or raccoons or possums?

Monika Maeckle [00:47:15] So, we need to be thinking more about that, about how the plants that we choose to highlight in our landscape have to provide more than beauty. And Doug Tallamy did an incredible job of that in his two books - very powerful.

David Todd [00:47:33] So, this is like, I guess, one of the big measures that you might suggest is trying to be real conscious of what you're planting and making sure that it is milkweed or some sort of pollinator supporting plant. Is that right?

Monika Maeckle [00:47:47] Yes. I think something that contributes to the ecosystem. Preferably a native plant, but well-adapted plants. I mean, there's plants that do great things for the environment that aren't technically native to here. I mean, we encourage native plants because native plants have these symbiotic relationships with the creatures of that area that have developed over millennia. And like, you know, as we develop our cities and, you know, take over more land for human use, there's less and less of that available. So we need to think about that more if we want to keep the ecosystem intact.

Monika Maeckle [00:48:20] And, you know, we're kind of back to what I was saying before about how everything's connected. So, we don't think about it like that, but we need to think more about it like it's all connected. It's a, it's a system.

Monika Maeckle [00:48:31] And you asked me earlier about books that really made a difference to me. And one of them that I just remembered was "The Invention of Nature", which is a biography of Alexander von Humboldt who was a scientist of, I believe, the 1800s. And he basically was the first person to propose that the Earth is an organism. And I think he might have created the first infographic, because in this book, "The Invention of Nature" by Andrea Wulf, there's a photo of a drawing that he did about how all the parts of the world that he explored and he went all over - South America, United States, Asia - back, back in the days were going on ships for months and years at a time, how every part of the world is connected to every other part, and when one is undermined, it affects the other.

Monika Maeckle [00:49:20] So I really embrace that philosophy that it's all connected.

David Todd [00:49:27] So I think you said earlier that that the, you know, much of nature's a system, that there's lots of opportunity for symbiosis. I was wondering if you could talk a little bit about what I understand is a debate among monarch butterfly aficionados, and that is whether to plant native or tropical milkweed. What's your view of that?

Monika Maeckle [00:49:53] I'm not a purist. I come from a German family that's very "praktisch", or practical, and I always like to say all things in moderation, including moderation. But in the case of tropical milkweed, sometimes it's the only choice. And definitely I would prefer to plant native milkweeds. And I live in San Antonio and on our Llano River ranch we have antelope milkweed and we have swamp milkweed and we have milkweed vine. And I've tried to plant all of them here in my garden and none of them have succeeded.

Monika Maeckle [00:50:29] I think I might have one tropical milkweed plant in my garden right now, but I mean, it's the kind of thing that you have to manage. And I'm not sure. Sometimes I ask myself what is native anyway, because the grow zones, you know, if you ever buy seeds, on every seed pack is the grow zone that says where is this likely to grow? Because what zone is it applicable to. And, you know, the grow zones are changing. They changed. I

think it was in 2012, San Antonio became part of, I believe, 8-B from 8-A to where everything is moving north. So it's all changing.

Monika Maeckle [00:51:06] I definitely prefer native plants, but I don't think we can rely entirely 100% on them. And I think if you do plant tropical milkweed, you have to manage it. You've got to cut it down in the fall to where it can't become a hotbed of OE, which is this disease that monarchs get, which is a spore-based disease. The spores drop off the monarch butterfly physically onto the plant, and then another butterfly comes along and picks it up, or an egg hatches and eats it. And it has to be consumed to be activated inside the creature. But it basically cripples the monarch butterfly and makes them less healthy.

Monika Maeckle [00:51:47] So it's just something to consider. And, you know, I know a lot of people disagree with me about that.

Monika Maeckle [00:51:52] But honestly, I agree with Dr. Jeffrey Glassberg, who said the tropical milkweed can be a buoy, you know, in a desert. And sometimes, you know, you just got to eat. And for, sometimes for monarchs, that's the only milkweed that we can have available because it's just really challenging in some situations to grow the natives.

Monika Maeckle [00:52:11] But absolutely becoming more available.

Monika Maeckle [00:52:14] The other thing is that nurseries typically did not make native milkweeds available because it is a very challenging plant to grow. It probably takes two or three years to grow some of these milkweeds that are appropriate for my zone to a point where I would pay ten or \$15 for one because they're just slow and they take their time. And if you want them to be blooming, which is what's going to draw shoppers to buy it, it's a three-year investment in a plant that you're going to get maybe ten, \$12 for.

Monika Maeckle [00:52:44] So, I mean, I think we're going to see more of that. But at the moment, it's still tough. It's still tough to find native milkweeds. So tropical is sometimes your only option.

Monika Maeckle [00:52:56] There's also a tuberosa, which is called butterfly weed, which is more available. And it looks very similar to tropical.

David Todd [00:53:09] So another question that's sort of a puzzle with good sides and bad sides perhaps. I think that at one point early in your monarch butterfly career, you had considered as a kind of a recovery strategy to breed butterflies commercially. And I think you had second thoughts after a while, and I'd love to hear what the process was for you that, you know, intrigued you at first and then made you step back after a while?

Monika Maeckle [00:53:39] Yeah. Around that same time when I started getting into monarchs and my, you know, my sons had left the house and I had more free time on my hands, I decided that, you know, at a certain point I was going to be leaving my corporate executive career and I was going to become a professional butterfly breeder, because when I started digging into the monarch thing, I didn't even know that was a thing. I didn't even know you could do that or what it was.

Monika Maeckle [00:54:02] And I started researching it, and I joined the International Butterfly Breeders Association and I got on their board and I decided, "Okay, fine, I want to leave my job. In 2010, I'm going to leave my job." Or maybe it was 2011, I think. I'm going

leave my job and start my butterfly breeding business. And so I did all this research and I got all my permits. You have to have a permit. You have to have 50 permits or however many states you want to be able to ship your butterflies to, you have to have a permit for that. I went through all of that.

Monika Maeckle [00:54:30] And it's funny because I was living in Austin at the time. My job had moved to Austin because we were consolidating. We moved our newsroom up there. And so I had to be in Austin a couple of days a week and I got to know a lot of the Austin people. And I was involved in the Austin Butterfly Forum with Mike Quinn, and somehow, I don't know how that came about, but Dr. Jonathan Abbott, who was the foremost dragonfly expert in the world, reached out to me because he was going to be doing a festival called the Insecta Fiesta, which I thought, "Oh, what a great name", being from San Antonio where we have Fiesta every year.

Monika Maeckle [00:55:05] And he needed 500 butterflies for an event he was going to have. The Insecta Fiesta was going to have a butterfly house and we were going to invite people in and they could walk around and, you know, hang out with the butterflies. And then at the end of the day, we were going to let all the butterflies go. So, they had to be all native butterflies.

Monika Maeckle [00:55:22] And so, I was just at the beginning of my unrealized career as a professional butterfly breeder. And I agreed that I would. "Oh, yes, I can. I can. I can supply those butterflies for you."

Monika Maeckle [00:55:34] I was living in an apartment. I didn't have a yard. I didn't have any way to do it. But because I had joined the IBBA, which is the International Butterfly Breeders Association, I learned how basically it's a commodities exchange at the IBBA. Like, if you need 50 butterflies, you can call someone in Florida and they've got 50 and you can get 100 from here and 200 from there or whatever.

Monika Maeckle [00:55:53] So, I said, "Okay, you know, I can just kind of broker this and, you know, we'll get the butterflies together on this particular day and we'll take them down there".

Monika Maeckle [00:56:02] So, I did all that and it went fine, but I just found it so incredibly stressful that I didn't think that I really wanted to spend my empty nest years doing that, as well as the fact that as I learned about what it would take to actually breed the butterflies, which is where I wanted, I thought I wanted to go, was actually to breed them and have all the greenhouse and all of that. It's a very methodical life, you know, of doing the same thing the same way every day. Like you've got to go water, you've got to bleach the milkweed, you've got to move everything around. It's like basically super, from my point of view, not that interesting chores that you would have to accomplish every single day, repeatedly over and over and over, very methodically, very, you know, certainly surgically clean to make it successful.

Monika Maeckle [00:56:48] And I was like, wait, that's just not me. I mean, I like to go out and have adventures and I get bored easily. So I determined that that was not going to work for me and that I would just kind of stick to promoting, you know, pollinator advocacy and, you know, writing about butterflies and stuff.

Monika Maeckle [00:57:02] So I think my talents are probably better utilized in that realm because I don't think I'd be a very good butterfly breeder and I know some really great breeders. So if I need some butterflies, I know where to go now.

David Todd [00:57:14] Well, I guess we all have our special skills. And it sounds like yours, among them is communications and marketing. And I was wondering if you could discuss how those kind of aptitudes maybe gave you some tools to help with getting the word out about monarchs and maybe promoting ideas that you'd like to advocate.

Monika Maeckle [00:57:39] Well, it's interesting because, let's see, in my job at Business Wire, where I was vice president of new media, one of my assignments was to start a company blog because we were going to have a blog. And my job was to teach all of our customers and clients how to use social media and all these new media tools to promote their businesses and get their press releases out.

Monika Maeckle [00:58:05] So, I started the Business Wired blog, but I thought, you know what? I'm going to just start my own blog on the side, just like as a laboratory, because then I can, like, do stuff and experiment and if it screws up, no big deal.

Monika Maeckle [00:58:17] And I'm going to do it on butterflies because, hey, that's what I'm into right now. And I can sort of explore my passion while I'm, you know, kind of professionalizing my new media skills in this very new world of new media, which was very new back then.

Monika Maeckle [00:58:32] So, I started the Texas Butterfly Ranch blog. And, like, I would do stuff on there and I tried this thing on WordPress. I'm going to try it over here at Business Wire. It worked out great, but then it just started kind of getting more and more. You know, I look back on that very first blog post that I wrote. I mean, it was like 50 words and it was like a picture of a swallowtail butterfly and like, "Oh, look what happened." And that was the post.

Monika Maeckle [00:58:53] But, you know, as I got more into it and I found it more gratifying, and as I got deeper into it, I started doing journalism on that blog, covering monarch butterfly events and all of that. And so it really put me in touch with a lot of the scientists as well. I mean, I would call and get quotes or do research or get verification on things. And I got to know a lot of these folks. And then later when we started our festival, I would invite, you know, these monarch scientists to come and speak and be part of a, you know, we did a program with Trinity University, I think their Visiting Scholar program.

Monika Maeckle [00:59:27] I worked with my friend Kelly Lyons over there. And we would pick a particular scientist and say, "Hey, you want to come down in October and you can, you know, Trinity will, you know, pay you a stipend and put you up in a hotel. And then on a certain day, we want you to come and do a presentation on what's going on in the butterfly world, you know, for, for an audience."

Monika Maeckle [00:59:47] And it worked out really well, but it gave me a lot of help in terms of understanding and also access to experts.

Monika Maeckle [00:59:54] And so, I guess that that new media skill set really kind of got me in the door with certain people and allowed me to have more access to information and knowledge that I might not otherwise have had access to.

David Todd [01:00:12] So you mentioned the Texas Butterfly Ranch, and I think you mentioned the writing side of it. But I think that another part of it has been photography and since these monarchs, and I guess other butterflies, are just so visually appealing. Can you talk a little bit about how you approach trying to put them in their best light?

Monika Maeckle [01:00:35] Yeah, I've thought about that. I used to have a real camera and now literally, I only use my phone, because I always have it with me. And typically when you run into a really great photo, like when I'm at the ranch and I'm kayaking and I do this tour, I have this little tour that I do on the Llano River where there's all these milkweed stands and I go check all the milkweed stands to see if there's eggs or caterpillars or whatever. And I kind of just do a little check up every time I'm out there. And of course, I always have my phone with me. So that's where I'm able to take those photographs.

Monika Maeckle [01:01:06] But it's also, I mean, it's just also very timely in the sense that everybody has a phone now. Everybody is taking photographs. I mean, there's so many photographs available everywhere that if I need a photograph to illustrate an article I'm writing, I can just go look for it and go ask the person on iNaturalist or wherever, you know, "Can I use your photo? I'll give you photo credit." It's been, it's been pretty amazing how crowd-sourced and sort of available all of these resources are. And it just, you know, requires tracking down.

Monika Maeckle [01:01:39] I am not a stellar photographer. I have a lot of, I know a lot of really great photographers. But, you know, I have a really good, friend, Lee Marlowe, who's an amazing photographer. And if I need a photo, oftentimes I call her because that's all she does all day. She works for the San Antonio River Authority and she's outside all the time with her phone and she has a real camera and she'll give me access to her photos and we use those as well.

Monika Maeckle [01:02:00] So, yeah, it's funny because when I remember when I started out, it was before the iPhone was really a photo tool and I had this thing, I forgot what it was called. It was like this weird little video tool that I would literally put it on a rubber band on my head, and I would go kayaking and I would almost like a GoPro before its time. And I actually have a video up on YouTube where I'm in the river trying to find some eggs. And I mean, I just can't believe how the technology has progressed in such a short amount of time. It's pretty miraculous.

David Todd [01:02:39] So it sounds like the blog, both with writing and photography is a way to just in a sort of explanatory way, like an exposition of here's the issue and here's the story about monarch butterflies. But I think you've mentioned in the past that there's a magic to monarch butterflies. And I'm wondering how you convey something like that, which is a bit more mysterious and perhaps harder to explain.

Monika Maeckle [01:03:14] I mean I think it's just the story of the monarch, like I said before, with this sort of, just this dreamy flight pattern, these charismatic colors, you know, the possibility of an insect in San Antonio, Texas, ending up in Michoacan, in the mountains, like it really does reinforce this notion of interconnectedness, of everything's interconnected, because that butterfly was in Canada and then it was in San Antonio and then it was in Mexico. So, I mean, I think when you put all that together, it's a pretty irresistible package of appeal.

Monika Maeckle [01:03:50] And I know, for me, I don't know of another insect except maybe bees that are comparable. And I used to be in the PR business. So a lot of times, like I mean, the

company I work for was a press release wire service. So, I mean, a lot of times I almost look at the monarch as my client, like, how can I promote you? Like, how can I make people understand you and appreciate you?

Monika Maeckle [01:04:13] But again, I like to really stress that it's not just about the butterfly, it's the whole package. It's the ecosystem. It's the land, it's the plants, it's the air, it's everything. And also just the mutual respect for creatures and each other. I think that really reinforces it when you learn the whole story of the monarch.

David Todd [01:04:34] Okay. So, I guess the magic is in how maybe interconnected the monarch is and all of nature and life and is that maybe where you're going?

Monika Maeckle [01:04:46] And also, just like the sort of like magic of metamorphosis, which we haven't really talked about. And I talked about the life cycle. But when you bring an egg into your house on a milkweed plant and you watch that process of this little bitty bead of life turning into this flying creature over the course of a month, it's pretty incredible.

Monika Maeckle [01:05:07] And, you know, this is happening all the time with all different kinds of creatures. But we don't get to watch it firsthand, take photos and put them on Instagram or whatever. And so, when people witness that for the first time. I mean, it's pretty life-changing.

Monika Maeckle [01:05:19] And, you know, after a certain amount of time. Yeah, yeah, it's metamorphosis, happens all the time. But I mean, when you if you've never seen that before, it's pretty outrageous. I mean, I have a little boy, I don't have any grandchildren, but there's a little boy down the street from me, Hector, and I take him caterpillars on a plant. And when I see the magic in his eyes, the sort of, you know, enchantment that occurs when he watches that process, I mean, I don't think he'll ever look at a butterfly the same way again after he gets to witness this.

Monika Maeckle [01:05:53] And it's the same thing that happens when you tag monarchs, when you have that tactile interaction with the creature, and when you think about the possibility of that creature flying from here to Mexico and being recovered on the forest floor, I mean, that's really profound and touches you in a way that I don't think a lot of things can.

Monika Maeckle [01:06:13] Every time I've taken anybody out to the ranch and I don't think we talked about this, I mean, that day with my friend in Menard, I went back to our place the following year, I was like, you know, they've got to be on our ranch. And so I found that they were roosting on our ranch. And that's what really, really got me was thousands of butterflies every October hanging out in pecan trees across from our house.

Monika Maeckle [01:06:38] And I go over there and we tag them there. And every time I've taken someone who's never tagged a monarch, or known about the monarch migration, or witnessed a monarch roost, and we paddle across the river and we walk on that stretch of the Llano, with the limestone escarpment in the background, and the pecan trees hanging over us and the water rippling past. And there's thousands of these orange and black creatures fluttering around. You can't not be massively impressed and changed by that. It's not possible. I've never had anybody not be massively impressed and changed.

David Todd [01:07:12] That's a little bit of magic. Yeah.

Monika Maeckle [01:07:14] Yeah.

David Todd [01:07:15] I think there is like, a natural resistance, maybe as you get older, to senses of awe, and, you know, belief in miracles.

David Todd [01:07:28] Well, so one of the things I thought was intriguing about your career with monarchs is that not only have you been doing, you know, these sort of virtual explanations over your blog and through photographs and writing, but you've also had these in-place events, and I'm thinking of the Monarch Butterfly and Pollinator Festival. And I was curious if you could tell us how that got started and what it sort of involved and what the goal has been.

Monika Maeckle [01:07:59] Well, I'd be happy to do that. Once again, it's kind of a, it was kind of a happenstance thing, not anything I ever planned. But in 2015, when Obama issued the National Pollinator Strategy, the National Wildlife Federation responded by starting this Mayors' Monarch Pledge thing, which is basically.... They went all along, the National Wildlife Federation, went up and down the I-35 corridor, which is the primary migratory route for monarchs east of the Rocky Mountains, and was basically approaching mayors of cities that lived along there, inviting them to participate in a program called the Mayors' Monarch Pledge.

Monika Maeckle [01:08:39] And basically the mayor of a city would have to agree to do three out of 24 action items to be, quote, a Mayors' Monarch Pledge city. And so, to participate, you had to do three things, and to be, you know, Leadership Circle, you had to do eight things. And so when that happened and I was already up to my ears in monarch butterfly, you know, promotion and advocacy, I worked closely with Terry Matiella here in San Antonio with the Wildlife Foundation. We went to our mayor, Ivy Taylor, at the time and said, hey, you know, we need to do this. Like we're, it's obvious, like we're right here in the middle, we're in the Texas Funnel, monarchs pass through here every year. We have the whole connection with Mexico, and Day of the Dead. It makes huge sense.

Monika Maeckle [01:09:21] And so we worked with her office. And Ruben Lizalde in particular there who, you know, trying to get San Antonio to commit to take the Mayors' Monarch Pledge. And so we went in and we made a presentation and explained the whole thing.

Monika Maeckle [01:09:34] They didn't even know about the migration, really, I don't think.

Monika Maeckle [01:09:38] And so we waited and waited, waited, waiting. A week goes by. Two weeks, four weeks, eight weeks. And I was like, "Man, what is the deal?"

Monika Maeckle [01:09:47] So finally, you know, we kept asking what was going on and were they going to pledge or not? And when they came back, finally, they agreed that they were going to commit, but they were going to commit to all 24 action items. And so that was like newsbreak!

Monika Maeckle [01:10:04] When we told the National Wildlife Federation that we were going to do all 24, they like practically fell out of their chair and scrambled to a conference call. And, "Oh, we're going to have to have, you know, a special category for that. You know, we didn't even think anybody would do that."

Monika Maeckle [01:10:17] And as it turned out, we wanted to be called, we suggested, well, how about Monarch Champion? We can be the Monarch Champions. No, the Monarch Capital: we want to be the Monarch Capital.

Monika Maeckle [01:10:28] They said, "Well, you know what if another city comes along and wants to be the capital, you can't have two capitals. How about champions?"

Monika Maeckle [01:10:33] So they said, okay, "Monarch Champion". If you do all 24 action items, you're a Monarch Champion.

Monika Maeckle [01:10:38] So, San Antonio then became the first city in the world to be a Monarch Champion city under the National Wildlife Federation.

Monika Maeckle [01:10:45] So, naturally as we, there were 24 items. I think we had already done 18 of them because San Antonio has an amazing river riparian restoration project that was happening at that time. And a ton of the action items like, you know, convert to pollinator habitat, grow native plants, you know, have a native plant sale. So, a lot of the items that they had suggested we do, we were already doing because of the San Antonio River Authority's initiative to restore the San Antonio River.

Monika Maeckle [01:11:15] But there were, I believe, five or six items that were not, that were not being accomplished. And one of those was to have a festival. We had to have a butterfly festival. And so by the end of, I guess, 2015, we knew what we had to do. I was thinking, "Oh, gosh, we're going to do a festival. And we said we were going to do this." I always do what I say. I do what I say. If I tell you I going to do something, I'm going to do it. So, you know, we're going have to have a butterfly festival, you guys, we've got to do it. And so, yeah, we do.

Monika Maeckle [01:11:44] So, I went, I don't know why, but I was meeting with the Hispanic Chamber, Ramiro Cavazos, who is an old friend. And I said, "Hey, man." And he was at the Pearl, which is this wonderful, you know, reuse development that everybody knows about. It's really cool. It has restaurants, right on the San Antonio River, right north of downtown. And his office is there. I said, "Hey, you know, we need to do a butterfly festival."

Monika Maeckle [01:12:06] And he says, "Okay." So let's approach Elizabeth Fauerso, who was the director of all the activities at the Pearl at the time. Very cool.

Monika Maeckle [01:12:13] So we go to the, we go to meet with her. And I lay out the plan. I said, "Look, we're the first Monarch Champions. We said we were going to do a festival. We need to do a festival."

Monika Maeckle [01:12:20] And she's like, "Great, let's do it. But, yeah, you know what? Let's do a climate change forum, too while we're at it."

Monika Maeckle [01:12:25] I was like, "Oh, okay." So, suddenly I'm doing a festival and a climate change forum and we're going to do it in October. And we decided we're going to do this in October because that's when the monarchs are migrating through - October 10th to the 22nd is peak migration in San Antonio.

Monika Maeckle [01:12:43] So, that 2016 was the first year that we did the Monarch Butterfly and Pollinator Festival and it was completely ad hoc, volunteer. We had no idea what

we're doing. And I actually reached out to Grapevine Flutterby Festival, which my friend Jenny, who was the one that turned me on to the monarchs in Menard, she was very involved with Grapevine. They have a really cool butterfly festival, and they were so incredibly generous. Like they sent me their spreadsheets and their checklists and, okay, by September 1st you need to do this, this, and then, oh, you need to buy the chairs. And they just had this whole outline of how to do a festival.

Monika Maeckle [01:13:19] So, basically I was still working full time, but I was also doing this festival because I said I would and it just turned into this whole thing. And we did the festival and we ordered, I think, 200 butterflies from a breeder and we tagged and released them at the festival. And we didn't have any cages or anything. So I had these laundry hampers and we had wagons that we pulled out and we had these laundry hampers with these butterflies in there. And I was so nervous that we're gonna open the butterfly, the cage, which was a laundry hamper, and the butterflies were going to be dead or something. I was, like, super stressed out about it, but everything worked out fine in that first year.

Monika Maeckle [01:14:04] You know, we have photos, and this is ridiculous. And I have to say, big shout out to my friend Adam Tutor, because the day before the festival - we did it at the Pearl (it's the perfect place to do it) - the day before the festival, I went to The Pearl and I was like, "Okay, where are we going?" You know, we were kind of figuring everything out. And so, "Man, we don't have a sound system. We need to have some speakers or something or like a microphone."

Monika Maeckle [01:14:26] And Adam, who was a saxophone player at the time and is now doing all kinds of really cool projects, I said, "Adam, how you doing? Hey, do you have like a portable speaker and microphone?" He was like, "Yeah, sure." I was like, "Hey, is there any way you can you help me out with this festival tomorrow?" He's like, "Yeah. Why not?" So then he came with his girlfriend and they made music and got everybody all riled up and like, did a little parade and everything.

Monika Maeckle [01:14:51] And so that's how that festival came about and it was so well received. We had thousands of people there, largely thanks to the Pearl's promotion machine. But that was the first one.

Monika Maeckle [01:15:03] And so, then the second year we did a poll like, "Should we do this again?" And everybody was unanimous that, yes, absolutely we should. So we did a festival for, you know, every year until 2020 - so 2016, '17, '18, '19. And every year when we did it, we would always have a climate change forum of some sort. As I said before, we would invite one of the scientists or scholars to study and come to a Trinity guest scholarship and to be part of the festival and participate. And it was always like a fun assignment, I think, for these professors.

Monika Maeckle [01:15:37] We had all the top monarch folks come and go. Chip Taylor from Monarch Watch, Elizabeth Howard from Journey North, Karen Oberhauser from Monarch Joint Venture all came and spoke and were participants.

Monika Maeckle [01:15:48] And we would typically, you know, do some kind of educational outreach like train - monarch teacher training for, you know, how to use monarchs in the classroom. And so we made it into kind of a cool, you know, multi-dimensional event in the month of October with various events unfolding.

Monika Maeckle [01:16:05] And so, then in 2020, we were going to have our fifth anniversary festival at the Pearl. And we were so excited. And we, you know, we had been raising money and working with other non-profits in sort of a public/private partnership arrangement and COVID happened. And so we'd already made all these plans. And then by March, it's like, "Oh, wow, what's this? What's going on here? Are we going to be able to do this?"

Monika Maeckle [01:16:27] And so, ultimately, in 2020, we had a virtual festival where everything was done on Zoom. We made a movie, we made a really cool movie, which you can watch on, I think it's on Vimeo, called, what did we call it? I think it was called, "Metamorphosis". I can't even remember now, but it's up on my website at TexasButterflyRanch.com.

Monika Maeckle [01:16:50] And we did everything virtually and everything was stored, you know, and it was kind of a mixed bag where it was, on the one hand a relief to not do it in person because it was less stressful on a certain level. But another way, it was all new technology when we were first learning Zoom and everything.

Monika Maeckle [01:17:10] And so then that following year, in 2021, the Pearl let us know that they could not be doing the festival anymore because they basically had so many people at their property on weekends that they really didn't need more people coming. And in addition to that, they needed to focus on their tenants and, you know, building business after COVID and trying to recover. And they did a whole reboot of the Pearl.

Monika Maeckle [01:17:33] And so we ended up doing it Confluence Park, which is a park here in San Antonio in 2021.

Monika Maeckle [01:17:38] And then last year, in 2022, we did it at Brackenridge Park, which is the oldest park in San Antonio.

Monika Maeckle [01:17:44] And this year, I've actually stepped away from the festival and I'm now director emeritus because frankly, I'm tired. I can't do all this. But I have an incredible protege, partner, collaborator Ashley Bird, who's handling the festival this year, and she is a Montessori school teacher and an incredible project manager and just all around badass lady. And she is handling the festival this year, which is going to take place on October 7th at Breckenridge Park.

Monika Maeckle [01:18:14] And I'm still going to be participating in a peripheral way and we'll be doing the Forever Journey campaign tagging the monarchs in honor of people who died.

Monika Maeckle [01:18:22] But in terms of all the logistics and the fundraising, the execution and the planning, Ashley's doing all of that. And I am so grateful that she and her team have taken that on. I have full confidence it's going to be amazing.

David Todd [01:18:36] It's nice when you can hand off the torch to somebody that you respect and have confidence in. That's great.

Monika Maeckle [01:18:46] Morphing into the next stage.

David Todd [01:18:47] Yeah, well, it's like a migration I guess, generation to generation.

Monika Maeckle [01:18:55] Yes.

David Todd [01:18:55] So one other thing I wanted to ask you about is and I think you mentioned this in passing, but we really didn't get a lot of detail about it, is that you were working on not one but two books. And I was wondering how you came up with this idea of writing a book and what your hopes are for the book and how it relates to monarchs.

Monika Maeckle [01:19:19] Thanks. Well, thank you for that. The book, the book on monarchs, the working title is "The Rise and Fall of the Monarch Butterfly Migration". And I started writing that in 2017. I guess just because I've always wanted to write a book. It's kind of a bucket-list item for me. But also I was very captivated by the subject, obviously, and I felt like there were stories that were not told that needed to be told, that I told to some extent on my website, but were deeper and more involved than I was able to reveal in an article.

Monika Maeckle [01:19:55] And so I started writing it in 2017, and I joined the Texas Writers League and tried to get an agent and did all of that. I've been through various iterations of working with A&M Press at first and then getting an agent, and then going into COVID and then having to rewrite the book.

Monika Maeckle [01:20:13] And in any case, I was really fortunate because I've been working on it so long. And as Ernest Hemingway said, there's no such thing as good writing, there's only good rewriting. I was able to polish this guy over and over and over. And I entered it into the Texas Writers League nonfiction book contest, which they have every year with their conference in Austin. And I ended up winning like a finalist. But yeah, I was a finalist.

Monika Maeckle [01:20:46] And so unbeknownst to me, I didn't have an agent at that time because I had an agent for the year of COVID. Of course, nothing happened in COVID. So then that lapsed and I was kind of back to square one. And I was kind of like, you know, in the meantime, I started writing this other book called "Plants with Purpose", which we can talk about later, if you like.

Monika Maeckle [01:21:03] But the monarch book, I kind of put it on hold, but then I got back to it. Redid it, entered it in this contest, and I won a finalist designation. And unbeknownst to me, they post these entries online. I didn't realize that the entry was up there. And I got a call out of the blue last November from University of Oklahoma acquisitions editor Andrew Berzanskis, and he told me that he had seen my entry and he was really intrigued, and would I like to talk about my book, and I said, "Hell yeah!"

Monika Maeckle [01:21:35] So I talked to him and I was so pleased because he made things move so quickly. Literally within a month I had a book contract. He was super into the project. It was so wonderful for someone to recognize what I was doing and kind of appreciate the take that I was taking, which is basically I mean, I got a degree in American Studies, which is a general and comparative studies degree, and that's kind of how I look at everything it's like everything is connected. You know, how does this affect that?

Monika Maeckle [01:22:00] And the book is literally a holistic natural history of the monarch butterfly migration since 1976, since that cover story in National Geographic. And there is some flashback stuff to like the history of tagging. But, it's mostly what's happened between

1976 and now. How did we get here? How did the monarch butterfly become this iconic, charismatic gateway bug for the world? And that's kind of what I talk about in the book.

Monika Maeckle [01:22:27] So, you know, at first I had started out with a memoir, different kinds of memoir, and I was like, no, I just want to make this a natural history.

Monika Maeckle [01:22:34] So anyway, the book's supposed to come out next fall, I believe, the monarch book. It's going through a second peer review right now. I feel very fortunate and supported by University of Oklahoma Press on that because they've just been really great about being super responsive after this long run-up to trying to get the book published. I'm just really thrilled to be working with them on that.

Monika Maeckle [01:22:58] So and it's fun because I've had, some of the peer review reactions from scientists, because as a non-scientist, you always tread in this world that the scientists are going to come down on you and say, "You're wrong about that. Or you screwed up, Oh, you forgot this, or Oh, you left that out."

Monika Maeckle [01:23:15] And I was very pleased with the very positive feedback I got from the scientists who peer-reviewed the book, that it will fill a niche in monarch history.

David Todd [01:23:26] That's wonderful. It's nice to get that response with something that you've toiled over. And, you know, it's always, a lot of that is work in private and you don't know how it'll be received.

Monika Maeckle [01:23:38] Yes.

David Todd [01:23:39] So there's this second book, "Plants with Purpose", and I'm wondering if any of these plants are plants that help monarchs?

Monika Maeckle [01:23:50] What do you think? Of course there are. But, basically, I mean, the "Plants with Purpose" book is I mean, kind of how I'm looking out onto my yard, which does not look very good right now with all the heat. And I don't have a sprinkler system. So, these are all drought-tolerant plants, but a lot of these plants in my yard, and the plants that I've fallen in love with, are plants that I discovered at our ranch.

Monika Maeckle [01:24:16] And once again, the curiosity tour that I've built my life around where I find something, and then I dig in and I go, "Oh, my gosh, I can't believe this. Unbelievable."

Monika Maeckle [01:24:27] But every one of these 25 plants that I profile in the book have an incredible story. The premise of the book is that you need to treat your yard like you're hosting a dinner party. Now, you're going to plan, shop for prepare, cook and clean up to stage this dinner party. So, who are you going to have at the table? Are you only going to invite people who are beautiful and attractive? Or, would you rather have some interesting folks at your dinner party? You know, folks that tell an interesting story that contribute to the community in some way or have some kind of unique feature that's worth sharing and delving into.

Monika Maeckle [01:25:08] And that's kind of how I look at gardening these days, is that I don't want just beautiful plants. I want plants that make a contribution of some sort. And so the 25 plants that I profiled, they each have to do at least three things besides be beautiful.

They have to provide, you know, wildlife services or, you know, food, or you need to be able to eat them, or make tea from them or, you know, they're the host plant to the sulfurs or something. They have to have more than beauty going on.

Monika Maeckle [01:25:35] And so, that's the premise of the book, is these 25 plants do multitask in the ecosystem.

Monika Maeckle [01:25:42] And it's just so interesting when you really dig in to a plant. Like I always fall back on the Jimson weed. I don't know if you know what Jimsonweed is, but Jimsonweed is a very toxic member of the Solonaceae family, which is also the tomato family. But it's a super cool plant that we had at the ranch, and it produces these seed pods that are called Indian thornapples because it's like a, it's like a green walnut with stickers all over it. And so, it's kind of intimidating looking.

Monika Maeckle [01:26:10] And the plant has a very interesting smell, which I actually like the smell. Some people hate the smell. And it produces these amazing white flowers that bloom at night and give off this redolent smell. Because if a plant blooms at night and it's white, it's attracting moths. And so it has to give off a smell to attract the moths to it.

Monika Maeckle [01:26:29] But, the other cool thing about this plant, in addition to it's, you know, it's a host plant, it's beautiful. It's drought-tolerant.

Monika Maeckle [01:26:35] You do not want to eat it. It's toxic and it can cause crazy hallucinations. And I love the story of the fact that this plant played a part in the Revolutionary War because in Jamestown, the indigenous people exposed the colonists to Jimsonweed. And they didn't realize, you know, the plant was toxic and could cause hallucinations. But when the British came over to invade, the colonists fed them a stew with Jimsonweed in it, and it made them sick for about a week and allowed the colonists to regroup and get their act together. And so it basically contributed to, you know, I guess you could call it botanical warfare in a way.

Monika Maeckle [01:27:21] So this plant just has an amazing history.

Monika Maeckle [01:27:23] And also, when you go down to deep south Texas, to the Devil's River, a lot of the cave paintings have pictures, pictographs, on the wall. And I love the Shumla project down there, which is a lot of women scientists that are associated with the Witte Museum here in San Antonio. And they've documented these paintings. And in the paintings, you see indigenous peoples holding Jimsonweed pods, these thornapples. And they used these thornapples to communicate with the spirits.

Monika Maeckle [01:27:56] And so this plant has this incredible deep history and story that, like, you're walking along the street and you see this plant, you have no idea the back story of this plant. It's toxic. It's a hallucinogen. And it's you know, it saved the colonists in the Revolutionary War. It's the host plant to sphinx moth. It smells great. It blooms at night. It's drought-tolerant. I mean, you know, what else do you need? This plant is like a rock star.

Monika Maeckle [01:28:18] So those are the kind of plants that are featured in "Plants with Purpose".

Monika Maeckle [01:28:23] And as you can see, I get very excited about these plants. When you dig in, and it really makes you stop and think about how it sucks that we don't know

plants like we know animals. Like everybody knows what a lion, tiger and bear is. But nobody knows the difference between an oak tree, a Jimsonweed, and a goldenrod plant. We really need to encourage people to get to know the plants, and to understand the plants, and appreciate the plants, because the plants are the basis of everything else, because those lions, tigers and bears are eating creatures that feed on plants, and that plants are basically the bottom line of the ecosystem.

Monika Maeckle [01:29:03] So, we need to do more to appreciate them. Yes.

David Todd [01:29:10] I like the way you put it all together.

David Todd [01:29:14] Though we've covered a lot of ground, there's always more. And I want to make sure that I haven't maybe somehow skipped over something that you really wanted to talk about. So I just wanted to ask you that one closing question. Is there something that maybe I gave short shrift to that we skipped or omitted that you might like to mention?

Monika Maeckle [01:29:35] But I think you were pretty thorough. I mean, I feel like we covered the bases here and touched on a lot of things.

Monika Maeckle [01:29:44] I mean, one thing I wanted to share that I think kind of explains again my fascination, is this sort of happenstance nature of learning and my curiosity tour. Because when I was back in, I think it was in 2012, when I got a comment in my email box on my website from a woman named Catalina Trail. And she thought she was sending a comment to the Austin Butterfly Forum. But it was a mistake. And she actually sent it to me because I wrote about the Austin Butterfly Forum.

Monika Maeckle [01:30:23] As it turned out, Catalina Trail is the woman who's on the cover of National Geographic magazine in 1976, and she lives in Austin, Texas. And she was kind of an unsung hero of the whole monarch narrative for so many years. And it was great for me to be able to get to know her. I got to know her through the course of writing my website and doing my research on the books.

Monika Maeckle [01:30:51] But, I mean, it's just crazy how all those things come together and, you know, she's still there.

Monika Maeckle [01:30:58] And she was celebrated after, there was an IMAX movie made about the monarch migration where she was a consultant. And that's kind of how I learned about her.

Monika Maeckle [01:31:07] But it makes you realize what a small world it is. You know, like I didn't intend to find her, and nor did she intend to find me, but we did. And we had this common interest in monarch butterflies. And it just is pretty amazing to think about how all of that came together.

David Todd [01:31:25] Very nice.

David Todd [01:31:27] Well, you've brought a lot of things together. Thank you very much for telling us about plants and butterflies and people. It's a great story. I look forward to seeing your books.

Monika Maeckle [01:31:38] Thank you.

David Todd [01:31:39] And I've wanted to thank you for your time today.

Monika Maeckle [01:31:41] Thank you for having me. I appreciate it.

David Todd [01:31:44] All right. Well, I hope our trails cross sometime soon. In the meantime, I'll look for what we can find in the bookstore.

Monika Maeckle [01:31:52] Cool! Well, you'll have to come out and tag some butterflies.

David Todd [01:31:55] I'd enjoy it.

Monika Maeckle [01:31:57] All right. You have a good afternoon.

David Todd [01:31:58] All right. Thank you, Monika.

Monika Maeckle [01:31:59] Bye.