

Smithsonian Folklife Interview

Marta Witt, Public Services Team Leader

&

Bill Glass, Ecologist

Midewin National Tallgrass Prairie

Illinois

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Interviewer: Susan Wright

Marta Witt (MW): Hi. My name is Marta Witt. I'm the Public Services team leader for the Midewin National Tallgrass Prairie. And right now I'm standing on the east side of Midewin at the Chicago Road Native Seed Production Gardens. Midewin was established in 1996, and it's the vision of grassroot groups in the Chicago area who saw an opportunity to preserve the largest open space essentially in northeastern Illinois. The history of this site is that it was farmed for many years, starting in the late 1800s, and when the army at the beginning of World War II was looking for large sites to do munitions manufacturing, this area in general looked perfect to them. It was away from the coast, it had ready supply of workers, and it had a lot of access to rail and highway transportation. So they bought several hundred farms in this area in 1940, and they began building the former Joliet Army Ammunition Plant. The east side, where we're standing, was an area where they loaded TNT into munitions products, like artillery shells and land mines, and on the west side they manufactured TNT.

Well, the army used this area to produce munitions during World War II, during Korea and Vietnam, and gradually began to mothball the plant until, in 1993, they decided to declare it excess. And a lot of people had a lot of ideas for what to do with this big open space, ranging from turning it into an airport to preserving all of it; there were all kinds of ideas. So the congressman at that time, George Sangmeister pulled together a cross-section of people from different groups-- the Joliet Arsenal Citizen Planning Commission—and they worked and worked coming up with a compromise, and eventually they did. And about nineteen thousand acres of what's left of the Joliet Arsenal was eventually established as the Midewin National Tallgrass Prairie in 1996. But the army had to clean up the land before it could be transferred to the Forest Service, and they finally transferred the first section of land in 1997, and we have been working with them ever since to manage that land and to try to begin restoring it back to the prairie in the Prairie State.

What the Forest Service did... And the Forest Service actually was selected to manage this land. They approached us, they said, would you like to become the administrator for this large open space near Chicago? And at first there was a lot of thinking. You know, here this was an abandoned army plant, there was a lot of contamination. But on the other hand, it fit with the tradition of the Forest Service, especially in the Eastern Region, where all of the national forests here, although today people think of them as pristine wildernesses, all of our national forests in the east began as lands that had been cut over and mined and generally just worn out until no one

else wanted them. And they've been restored, today, to prime recreation and timber resources and other natural resource areas. So the Forest Service thought about it and they said, this does fit with what we want to do; yes, we would be interested. So we accepted transfer of those first fifteen thousand acres, and we have been working to develop a plan to restore this area back to native habitat. The first project, of course, was to develop a prairie plan, which we completed in 2002, and we looked at a lot of the native habitats that were here. Only three percent of what was transferred to us is native habitat, and it's in little pockets. And so the first project was to look at what should be out there and how can we make that happen.

The first people who came to Midewin to help make that happen were just a very small staff of people. Originally it was thought that, this is so much smaller than the other national forests in the country, that they should just need a few people. But we quickly found out there was a lot of work that needed to be done, and the people who came right to the forefront were our volunteers. We have hundreds of volunteers from all over the Chicago region who come out, and they do a variety of things here. The very first jobs were establishing these seed beds like you see behind me. We have three native seed production gardens at Midewin, and the volunteers will come out and they'll plant seed in the gardens; they'll weed them, mulch them; water them the first year, they don't need a whole lot of care after that; and then harvest the seeds. Our volunteers have also been helping us lead tours at Midewin. Because the army is still doing some cleanup of superfund contamination we couldn't just say, we're public land, come on in and walk around. We had to take some responsibility for protecting the public during the cleanup. So we started by leading escorted tours, and we started by having volunteer tour guides and Midewin staff would lead tours to show people what was out on the prairie. People had not been out here for sixty years. It had been closed to the public for security reasons during the wars and during the munitions manufacturing. So this was their first look at what was really left out here, and it gave them an opportunity when we did our prairie plan to participate and say, well we've seen what's out there, here's what we think you should do with it. So they were able to participate a lot more effectively. Other volunteers helped us doing office kind of things. Database activities. Others helped us monitoring the resources. We needed to find out what was actually out here so that we could plan to improve it and increase the habitat for it. So we have bird monitors, butterfly monitors, frog and reptile monitors. Just a wide variety of opportunities for volunteers to help us restore this area and make it a great area to be in.

After we had our prairie plan done, one of the things we started working toward was—well, we're implementing it; we invited volunteers and partners to help us do that—but the next interest was, how can we get this open to the public? We have it all behind fences; what kinds of activities are safe for people to come out here and do? What would they even be interested in doing? And I'm really proud to say that last National Trails Day, last June, in 2004, we were able to open the first five thousand acres of Midewin, and open some interim trails. We haven't been able to build trails yet, but we've created some interim trails out of old roads and railroad beds and some old paths, so people can actually come out now and see it on their own. They don't have to wait for an organized tour, and they don't have to stay outside the gates. Where we're standing, on the east side, this is the first time the public has had a chance to come and actually see the Chicago Road seed beds, and to take some trails in this area and just recreate in the area.

Part of what we try to encourage people to think about, and we try to set their expectations is, when they come to Midewin we're pretty rustic; we don't have a lot of facilities here. I mentioned the interim trails; well, we're a [word unclear] kind of place, and we're a [horseback?] kind of place; and most of our other facilities are the same. The only real facility or visitor contact station we have here is, two years ago we were able to move into a new office building. Before that we were in one of the old farm houses that had been along the highway and so the army hadn't taken it down. And our staff and our volunteers worked out of the farmhouse and several trailers. And then two years ago we finally finished an office building where everyone could work together in the same building. And we were able to provide a welcome center for the public. Before that we had people coming to a desk in what probably used to be the dining room of this farmhouse, and there was room for maybe two people to stand. And now we have a welcome center where we can host school groups and a busload of people. The other thing that's happened just this year, which is very exciting, is through partner funding and through a lot of hard work by different staff at different levels, we've been able to install, to design and have installed, a complete set of interpretive exhibits that explain the history of Midewin, both the natural and cultural history. I mean, what was here before the arsenal changed the landscape, and what was here people-wise beginning from Native Americans through today when we have visitors coming out to tour.

The other facilities that are here are essentially parking lots and portable toilets; but I think that for the Chicago public, who may be used to the groomed parks and maybe some fancier trails and facilities, this gives them an opportunity to do something that's a little more rustic. And it's in an area where I think there's enough isolation, they can get a feel for being in a large open space. If you stand here, even in the middle of the day, you can hear a lot of the bird calls behind us, And I think the people who come out and walk the area and hike the area are going to have an opportunity to feel out in the open, out in the outdoors, than they will in some of these more manicured parks.

[Recorder turned off.

Recorder turned on to show Bill Glass standing in same location.]

Bill Glass (BG): Hi. I'm Bill Glass; I'm the ecologist out here at Midewin National Tallgrass Prairie. The scene you see behind us has changed over the years and hopefully will be changing again in the future. If we could go back in time to the mid-1800s we'd probably be standing pretty much in tall grass prairie. The tree line we see behind us is Prairie Creek; that probably would have been wooded. There would have been some wooded areas here and there. There was a little bit of savannah here. But most of this would have been tall grass prairie. And we know this from the early land survey records that were made back in the 1830s. As this area became populated, as settlers moved in from the East, the landscape started to change. And by the time the army got the property in 1940 this would have been quite different. Each square mile here probably would have had three or four small homesteads. Most of the land probably was in row crops, again except for maybe some small wood lots here or there that were probably grazed. And then once the army got it the army changed it some more. A lot of infrastructure went in. They changed some of the land management. And then when the Forest Service got it, we got it pretty much as it looks today, which again is pretty much different from what it would have been a couple hundred years ago. But our goal is to try to, as best we can, to try to put some of these

ecosystems, some of these natural areas back together again, and hopefully some day we'll be maybe standing here and then again there'll be prairie where we're standing and then forested areas off around the streams.

We developed a prairie plan to restore this land. Our future desired conditions are pretty much, maybe about two thirds of it, putting it back into prairie or prairie ecosystem with grassland, tall prairie grasslands; and then also wooded areas along the streams, and then there were some wooded groves here and we're trying to restore those. Some of the other portions of the land, about another third, we're maintaining as grassland for grassland birds, and that may also be converted to prairie in the long term.

Restoration's a long process; we're just getting started. Much of the work we've done so far has been in partnership with not-for-profit and volunteers. We've restored, have started restoration on about a thousand acres. We could not do that ourselves. It's a lot of work. We've required a lot of plants, a lot of seeds. We're standing here in front of one of our seed production areas, and you can see these seed beds. These are producing seeds for us that we then take and put back out onto the land. We're converting crop land to prairie, and as I mentioned we've done about a thousand acres. It's a long, detailed process. Much of the land has been changed in various fashions. This land was pretty much in crops, so that the farmers wanted to get the water off the land as soon as possible in the spring so they could plant it, so that a lot of the land out here has been tilled. There's field tiles put underground. There's also drainage ditches that drain the land. Much of this land would have been much wetter than it is today. Our first step in restoration is to try to return that hydrology, and then also try to return some of topology. There's rows and things like that that were put in on some of these tracts. So that's our first steps. After that then it's a matter of planting; and again, it takes a couple hundred species to try to put a prairie back together again. And it takes thousands and thousands of seeds, basically thousands of pounds of seeds. That's just the first step. Once that's completed then there's the maintenance kind of phase, and that requires proscribed burning, it requires controlling invasive herbaceous plants and woody vegetation; some of that can be done by proscribed burning, others we might do by mowing or using some herbicides.

We look at this process as a long-term process. It may take twenty years before a ten acre tract that's been converted over to prairie actually starts to look like a native prairie. It may take a hundred years before it's functioning as a prairie. You could think about it; it took thousands of years for the prairie to evolve; it took several hundred years for us to destroy the prairie and it can't be put back together again in just ten or five years. This is a long-term process. Even after an area's been planted we go back in and re-plant it, and go in and enrich it with a later succession of plants, plants that would be found later in the life of the prairie, that are difficult to get established. So it's a long-term process. A lot of this, again, is being done through partnerships. We get rent money through some of our partners. We also get work done through some of our partners. Some of the restoration work that's being done out here right was initiated through partners. Some of it we've initiated and gotten partners to buy in and help us. And the other really important factor is the volunteerism out here. Without our volunteers we couldn't get a lot of this work done. The seed beds out here, a lot of the weeding, the planting, is all done by volunteers. The seed collection is done by volunteers. We also have school groups coming out, they collect seeds. We have a program called mighty acorns where local school groups come out.

They get some environmental education, they also do some projects on the ground, and one of them is collecting seeds. And in the fall there'll be sixty-two different school groups that come out and do some of that work. The seed is then taken back to our administrative site where we have a horticultural building where we clean the seed, process it so that it can come back out in the next spring. And again that's another job that's really dependent on the volunteers. We have people coming in on Wednesdays, typically two Wednesdays a month and two Saturdays a month, coming in to volunteer to help do some of that work.

Hopefully in the next hundred years or so people will be able to come out here and interact in this environment as it might have been a couple hundred years ago. I think sooner than that we'll probably be able to come out, people will be able to come out and see the beginnings of what a prairie looks like. But it's probably going to take fifty to a hundred to actually have that process, where everything's interacting in a way that you would expect a prairie to interact.

Susan Wright (SW): The planting process of the seeds, after you've collected them and taken them back to the office and bring them out, do you just scattered them? Do you plant like we would plant flower seeds in the garden? What's that like?

BG: Well, you know, it boils down to what we're doing is using the same agricultural techniques that converted this from prairie into agriculture. We're using seed drills that someone may use to plant soybeans or to plant wheat. They're slightly modified but it's basically the same principal.

SW: But you're using modern technology?

BG: Exactly. Especially on the scale we're doing it. If you're doing it on a small scale, five to ten acres, you know, you can go out and hand spread it, and rake it in, and things like that. But we're doing it on a scale of thousands of acres at a time, and we've got to use a more mechanical type of approach. So we're using actually the same types of things you'd see our permittees using out here to plant their wheat.

RECORDER TURNED OFF.

RECORDER TURNED ON TO SHOW MARTA WITT STANDING IN SAME LOCATION.

MW: One of the interesting things about Midewin is its name. And we have people ask us frequently what does it mean and where does it come from? And when we first looked at the opportunity to restore this land, and we thought about what would be an appropriate name for this, and our archaeologists and some other staff people looked at it and they said we would like to use something from the Native American tradition of this area. And there weren't very many tribes left in this area; in fact all of them had moved out of state. But we did consult with some of them, and we asked, would it be appropriate to use the word Midewin? One of the reasons that we wanted permission for this is it is a sacred word. It describes, in the Pottawattamie tradition, the healing society that looked at healing not just people but the community and the balance with its environment. And we thought it would be such an appropriate word for us to use to name this

area. We were going to try to bring it back into balance and return it to nature. And we did have tribes who said yes, that would be an appropriate word as long as you understand that you must use it with respect and that it does reflect a sacred part of our culture. So we do try to honor that word and honor the name of the prairie, and when people ask us we explain why we selected it and why it means what it does, and we're very proud to have that name for our unit here.

RECORDER TURNED OFF.

RECORDER TURNED ON TO SHOW BILL GLASS STANDING IN SAME LOCATION.

BG: Sometimes we're asked, won't the prairie just come back on its own? Why do we have to actively manage this or actively plant? And most of what we see around us, behind us, other than these seed beds, are non-native plants. They're invasives, most from Europe and Asia, and they're the dominant species out here right now. If we just walked away and let this go, what would happen is these plants would take over and dominate, even more than they are today. So it's a long process. The seeds that might have lasted for years in the prairie soils and the prairie plants are long gone after a hundred and fifty years or two hundred years of being plowed up. So we have to go back in and re-plant everything. People always ask too, well you have little bits here and there—and we have about three percent of the land out here still has some natural prairie or some natural community on it—won't those slowly spread out? And that's true, they would slowly over time, but it would probably take thousands of years before those small little bits here and there would spread out to form a large prairie, and it would be fighting all this other stuff here in the meantime. So that's why we have to actively kind of go in and manage and reconstruct what was here, using seeds from those little remnants we have.

People sometimes ask, how rare is the prairie out here, how uncommon are some of these natural communities? Prairies, at least the tall grass prairie, and that's kind of the portion of Iowa, Indiana, Illinois, up into Wisconsin, where it dominated, is probably one of the rarer natural communities in North America. And we even have some prairie on Midwestern called dolomite prairie that's even rarer than that. It's kind of the rarest of the rare. Dolomite prairie is found where there's just maybe a foot or a foot and a half of soil on dolomite bedrock, and in some cases the bedrock is actually exposed. And we have several hundred acres of that. It's a very rare community, there's probably in the state of Illinois only maybe six to eight hundred acres of it. And there probably isn't too much more in all of North America. It's a very rare community; there are some very rare plants that are associated with it. In fact several of them are federally endangered. That's another community that we'll be trying to restore. It's a community that we don't know a lot about how to restore, because not a lot of people are doing it because there's not much left.

The management technique that we use for restoring the prairie and restoring the natural communities out here is kind of an adaptive management technique, in that we try things, we monitor it; if it works, great; if it doesn't work we change it, see how that works, monitor it some more. It's kind of a feedback loop that we're constantly going through, trying to develop the best techniques that we can. People have tried to restore or reconstruct prairies on a large scale, but nothing quite on the scale that we're talking about here. There are some areas where they've

restored a thousand acres or are in the process of doing it, or two thousand, but nothing in the neighborhood of fifteen thousand acres. So we're kind of breaking new ground, and we're also trying to restore some very unique communities like the Dolomite prairie. There's a little bit of restoration work going on in Illinois, but there isn't really much going on in the rest of North America. So we're trying new techniques, seeing what works. If something doesn't work we discard it, try something new. It's a long process and it's a learning process, and hopefully some of the things that we learn here will be applicable for other areas and people can use it in other restorations.

And that also brings up another important point about why Midewin was born in the first place. It was to protect the land, but there were also a couple of other important aspects. And one was, to develop an area where a lot of research could go on, and also a lot of environmental education. So those are a couple more important aspects at Midewin, And we do encourage research out here. We try to cooperate to the greatest degree we can with researchers. We try to encourage them to do research that we use and that can be used for other prairie restoration projects.

END OF INTERVIEW