Natural Areas Newsletter
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Where There's a Will: Protecting the Biodiversity of Northeast Ohio

An interview with Jim Bissell, Ph.D., former Director of Natural Areas, Curator of Botany, Cleveland Museum of Natural History
2004 Recipient of the **George B. Fell Award**
Lifetime Member of the NAA since 1983

Jim Bissel and the Executive Director of NAA, Lisa Smith.

Long-time Natural Areas Association (NAA) member and one of Ohio's premier botanists, Dr. Jim Bissell, was the Curator of Botany at the Cleveland Museum of Natural History for over 48 years. Joining the Museum in 1971 in Research & Collections, he was named curator of botany a year later. In that role, Bissell was responsible for much of what is currently known about plant diversity and regional habitats in Northeast Ohio, and his work has preserved rare species and diverse ecosystems throughout the region.

Bissell identified plant species in locations where they had been considered regionally extinct or had never been recorded previously which made him realize that knowledge of the region's botany was inadequate. Submitting his data to a statewide database tracking rare plant occurrences, Bissell's contributions account for more than 10 percent of the entire database, which is used to set conservation priorities at the state and local levels.

In the beginning, Bissell approached landowners for permission to access their property for study; however, as he began to get to know them, he soon redirected the conversation to long-term preservation. With gracious persistence, and sincere passion, Bissell persuaded many landowners to allow the Museum to purchase their property. From 1976 to 2020, as the Museum's Natural Areas Director, he began adding to the preserve portfolio. Starting with eight properties, today, there are more than 50 natural areas under Museum protection – and this is his legacy.

Recently retired, I had the opportunity to interview Jim, and his long-time colleague, Renee Boronka, former Associate Director of Natural Areas for the Cleveland Museum of Natural History. As Jim readily admits, Renee was instrumental in the management of the Museum's land portfolio and allowed him to stay focused on finding and preserving new natural areas.

Moira McGinty Klos: You have a tremendous reputation as a botanist. What inspired your interest in plants?

Jim Bissell: It started with butterflies. I had a great grandmother who was a naturalist. In about the ninth or 10th grade, I used to spend a lot of time at her house. We would walk around her property and identify the trees, plants and other species. This is where I found Regal Fritillary, a species that sadly is no longer known to be in Ohio. We started with butterflies, but I was also into birds, snakes, frogs. I freaked my mother out more than once with living things she found in my bedroom. It was a great place to grow up with outstanding forests and wetlands that are unfortunately gone now. 1950s and economic expansion took over and the land is now mostly host to commercial enterprises. However, that is what got me started, learning from someone who loved the land and could share her knowledge with me.

Moira McGinty Klos: Is the loss of the unique natural areas on your grandmother's farm the reason that you became interested in conservation?

Jim Bissell: Yes, definitely. Watching the destruction of the forests and wetlands on the farm inspired my commitment to protect the land and all the unique habitats and species included in these natural areas. There was a virgin forest on the farm property. It really upset my grandfather to do it, but during the depression, he had to cut into it and sell what he could. They had to do whatever they could to provide for the family. This was before I was born, but he described this burgeoned forest. It was a beech-maple-basswood composition. He was not the only one. The depression and post-war growth contributed to the loss of many old growth forests. That is why the ones we found in subsequent years needed protection.

Moira McGinty Klos: The study of natural areas was quite limited in the mid-20th century. What was your educational journey?

Jim Bissell: My first love was chemistry, so I majored in chemistry for two years at Miami of Ohio thinking that I wanted to be a chemist. My junior year I transferred to Ohio State University (OSU) and I started volunteering at the zoology museum just for something interesting to do. I was assigned typing crayfish labels for Dr. David Stansbery, a professor of zoology and entomology at OSU. He is the one that really got me into conservation. Another was Jane Forsyth, a pioneer of women in geology who earned her Ph.D. at OSU. Jane went on to become the first female geology professor at Bowling Green State University. Even though she became known as the "queen of Pleistocene," she was also an expert in glacial geology and a passionate conservationist.

Moira McGinty Klos: When you think back on the conservation and preservation movement that began during the 60's who were the people that were influential in promoting this topic to a national dialogue?

Jim Bissell: Director of the Cleveland Natural History Museum, Bill Scheele was one. He was a part of The Nature Conservancy board in Ohio. However, back in the 1960s the

Museum did not have an endowment, so he was working very hard to maintain a small staff. When I started at the Museum there were about thirty employees, now there are over a hundred. Even with those pressures Scheele wanted to protect land in Ohio. He convinced the board to buy a small part of Fern Lake Bog in 1956. Then he worked on Mentor Marsh, and he was a driver behind the protection of that outstanding system with its unique peatland.

I was hired as a botanist by the Museum in 1971, although I had a competing offer at the Bridger-Teton National Forest in Wyoming. It was close, but I chose the museum over the U.S. Forest Service.

Moira McGinty Klos: One of the things that you, and your team led by Renee Boronka, are most known for is the preservation of land in Northeast Ohio. Museums do not necessarily go in this direction, what started this focus?

Jim Bissell: Actually, it was because other organizations were not protecting the unique sites in Northeast Ohio is why we started buying land. For instance, Singer Lake Bog is a fen left by the Wisconsin glaciers over 12,000 to 18,000 years ago. It is home to many unique and endangered plants. That is how we got into the land business. I spent a lot of time surveying the natural areas in Northeast Ohio and I just kept finding outstanding systems that needed to be preserved.

The truth is, often preserving the land comes down to money. I remember the first time I proposed purchasing Singer Lake. The first question was, “how much is that going to cost.” I responded, “something over 2 million.” The answer was absolutely not! And that is generally how it went. That is how the Museum started to acquire the land. It needed to be saved.

Moira McGinty Klos: What was the most challenging acquisition?

Renee Boronka: Singer Lake was one of our biggest and most challenging acquisitions. You really had to cobble this one together, right Jim? There were so many different funding sources.

Jim Bissell: Yes, there were 16 landowners involved at Singer. The area is a mile long and over 300 acres. There was development all around the land and property values were rising. There was no deal unless all 16 owners were willing to sell. At the time, everyone thought that that would never happen. Eventually, though we got them all. It cost more than I had originally thought, closer to three million, but the board approved it and we got the deal done.

Moira McGinty Klos: How did a trained scientist become so tremendously influential in securing funding and convincing owners to sell?

Jim Bissell: I learned by doing. I learned that I was good at raising money, and better yet, convincing people to part with their money. I found that I had the knowledge,

patience and passion to convince a property owner to sell. Often the conversation would start with “no,” but overtime a no could become “yes.” I never lost hope.

Renee Boronka: Jim was motivated by a passion to save these precious species within their unique natural spaces of Ohio. He is so sincere, people trust him. Jim has the expertise and shares from the heart.

Jim Bissell: When you have a natural resource like Singer Lake Bog, how can you not fight to preserve it? There are over 73 species of dragonflies, which is the most in the state, and at least 36 rare plants, many of which are no place else in Ohio. That is what we know. I am positive that there is still more to discover. Singer Lake is such an impenetrable place that the average person, and professional for that matter, does not want to slog through it.

Renee Boronka: Jim - Do you consider Singer Lake the acquisition you are most proud of or is there another one?

Jim Bissell: That might be the North Kingsville Sand Barrens. It would be a subdivision if we had not saved it. This same sand barren habitat existed where the Museum is currently located. Again, I pushed to buy it. I remember when I showed it to the Museum board, around 1986. It was pretty weedy, but there was an old record of wild lupine (*Lupinus perennis*) on the site. When I looked for it I found it right away. Well not right away. I looked on the wrong side of the road at first, and then I realized it was actually on both sides of the road. Since that time, we have found species that are new to science. It is just a spectacular system.

We have specimens from Wade Park from the 1880s with a lot of the same rare plants that are in the North Kingsville Sand Barrens. And there was another site 30 miles east around Painesville. Amazing, our NKSB has many fresh-water springs and over 60 species of dragonflies (the third largest number of dragonflies in the state). These springs have never stopped running. They are fed by Kingsville Swamp which we acquired as well. There are new species to science located there still undetected and identified. We completed a survey in 2007 and identified over 50 species of spider.

Of the 50 species of spiders, two are globally rare, and one was a new genus to science. It has been added to the museum insect collection. I hope that someday someone will describe that new genus. There is also a burrowing wolf spider (Geolycosa domifex). It is found no place else in the U.S. Then there is the spider that spider expert Sam Marshall found. At first, he thought it was a common variety, but it turns out it is a species only known in Southern Ontario. Species like this can pop up because they have a capacity to stay dormant for decades to a century or more. You never know what you will find. There is still so much more to discover in these places.

Renee Boronka: I just love Singer Lake. It is a beautiful place to hike. I love the dragonflies, which have always been an interest for me.

Jim Bissell: Yes, there are definitely more species to be discovered at Singer Lake than at the sand barrens.

Renee Boronka: Just last year they had a sandhill crane sitting on a nest that was just beautiful to see. Such a majestic bird. I also love the emerald dragonflies, the elfin skimmer (*Nannothemis bella*). It is such a neat place to go. It can be difficult terrain, but that is what makes it possible for you to find those little gems there. Anytime you go there, you know you are going to see something new. And when you go into these places with an expert like Jim, and he is finding things he has never seen before, you know it is a special place.

Moira McGinty Klos: I assume that acquiring the land is only the beginning. How did you manage the long-term conservation of these lands?

Jim Bissell: I have to say one of the keys to my success was the hiring of Renee Boronka in 1996. And I am very serious. She is an amazing manager, and she has the same passion for conservation that I have. Renee was my first full-time hire.

Renee Boronka: Each piece of land needs to be managed a little bit differently depending on the habitat. Some of the areas do not require anything extensive even though you do need to visit them annually to make sure invasive plants and species are not showing up. For instance, someone once recently spotted a clump of purple loosestrife (*Lythrum salicaria*) at Singer Lake and we were able to dig it up before it spread. Occasionally, you see something that is a bigger issue to tackle, and we would rely on our Land Steward and his crew of students to work in the summertime. Maintaining the land includes laborious tasks that need to be done in the field season. Much of the maintenance is getting people on board who are willing to help.

Moira McGinty Klos: Are programs like this part of the Museum's effort to attract future botanists?

Renee Boronka: Yes, it was part of the process. Every summer the museum would offer internships and two would work with us in botany. It provides the students with an amazing experience and many do go on to work in the natural sciences. We have kept in touch with most of those students over the years.

Moira McGinty Klos: So, given your many, many years at the museum, what do you consider to be your, your greatest legacy?

Renee Boronka: Jim's legacy is a wonderful system of nature preserves he assembled under the Museum's care. It is an extensive collection of natural habitats that existed in this region, which pre-date humans. The species associated with these natural areas could have easily been lost forever.

Jim Bissell: For the first 20 to 30 years when we were acquiring these lands, the museum public relations group did not want to promote the purchases. The perspective

at the time is that buying land and nature preserves is not what a museum is all about. This has changed.

Moira McGinty Klos: Can we take a moment to look at the natural areas movement and your involvement in the Natural Areas Association (NAA)? What are your recollections of the early days and some of the pivotal figures like George Fell and Bob Jenkins who passed away recently?

Jim Bissell: I was on the national board of governors for The Nature Conservancy between 1985 and 1988. I knew Bob Jenkins, the first chief scientist at The Nature Conservancy, very well. He was amazing and contributed a lot. It was his vision that led to the creation of state heritage programs. Those programs needed to happen and have an essential role today.

Bill Scheele was another figure who made a difference. When I was hired in 1971 his charge to me was to start a plant list for Ohio. Nothing like that existed back then. It was published in 1980. It took a long time to compile. Bill also wanted me to look beyond plants and to seek rare habitats. He knew that if we found these types of locations that it would strengthen the argument for protecting more land. Bill was one of the founding members of The Nature Conservancy in Ohio. These types of activities were happening all over the country. It started independently, but in time it coalesced and became the natural areas movement.

This state-by-state inventory was truly due to the efforts and leadership of Bob Jenkins. There are not enough good things to be said about that man. He was a genius and he deserves credit for pushing the need for a national inventory of natural areas.

Moira McGinty Klos: Did you know George Fell, the founder of the Natural Areas Association?

Jim Bissell: I remember one of the first times I met George. It was at a conference *(the Natural Areas Conference still held annually by the Natural Areas Association.)* I think we were in Tennessee. I remember all the botanists in the state, and a few attending the conference, jumped in a van, in order to explore every heritage spot in the region. As we were speeding along on these steep curves, somebody joked that if a gear goes out all the botany expertise in the state would be wiped out! It was something I will never forget. I bet it was true. Well, they slowed down at that point, I think it was Reed Noss, another legend in the field, who was driving. But anyway, that is the meeting where I met George Fell.

The conferences were much smaller back then, at least compared to the National Areas Conference today. But it was a great meeting, and I kept coming back every year as much as I could.

Moira McGinty Klos: What were the benefits that you got out of being part of the NAA?

Jim Bissell: I met some of my best friends through the NAA by attending the annual conference. One of my closest friends, Rick Mellon and I met in 1988. It was at the Syracuse conference. I didn't get to do field work with Rick this past year. COVID has slowed us all down. If it were not for the pandemic, I am sure a few of us would have gone someplace to do some field survey work.

The truth is that at the conference you could get to know others in your field and learn from others who were experts in other aspects of conservation. You meet at an event, then you call each other to confer on a topic or ask questions, and before you know it these people become some of your most valued relationships.

Moira McGinty Klos: This interview would not be complete without recognizing that you were the 2004 recipient of the George B. Fell Award that recognizes an individual's lifelong dedication and exceptional commitment to the natural areas profession.

Jim Bissell: That award means a great deal to me. I admired George Fell. You may know that there is a book about him while he was at The Nature Conservancy called, *Force of Nature: George Fell, Founder of the Natural Areas Movement.* In fact, I am going to pull it out and read it again.

George was the nicest guy. I mean, he was one of those people you could talk to forever. He was not only respected, but very well liked. When I received the Fell Award, George had passed on by then, but his wife attended the award ceremony.

Moira McGinty Klos: George Fell was heavily involved in The Nature Conservancy, but he then went on to establish the NAA. Why do you think an organization like NAA is important and should remain in existence?

Jim Bissell: NAA has a different mission from The Nature Conservancy. NAA gets important resources to people who are managing the land and advancing conservation science. The membership includes a vast number of interests and areas of study in natural areas and there is still so much to learn.

Renee Boronka: I just want to add that it really helps to have the opportunity to spend time with others who are passionate about conservation and preserving biodiversity. You don't bump into these types of experts every day. This is something I always emphasize with our students. I encourage them to get involved in NAA or other professional organization. It expands both your knowledge and your network.

Jim Bissell: I agree, and we energize each other.

Renee Boronka: It is important that the younger generations get involved and join organizations like NAA. I realize that technology has done a lot to help with identification, but nothing replaces being able to interact with scientists and natural area professionals at all levels of their careers. People like Jim are only around so long, and there is so much that can be learned by engaging in conversation and sharing of experiences.

Jim Bissell: I agree.

Moira McGinty Klos: As someone who has a long legacy in conservation, what advice or wisdom do you want to share with the up-and-coming generations?

Jim Bissell: I think it is simply, do not let the natural areas movement die. I get worried when I look at the trends. Not as many students are choosing to study botany. You need people who understand the plants, animals and unique habitats to educate others so that we can continue to protect these areas. There is still a lot of work to do.

Renee Boronka: I would add that it is important to keep fighting the good fight, keep moving the cause forward, protect the land you can before it is gone forever. I know we have heard that for decades, but it could be more relevant now than ever before. The impact to our natural areas continues to grow from the interests of commercial industry to the financial value of certain resources. We are not done. We will never be done.