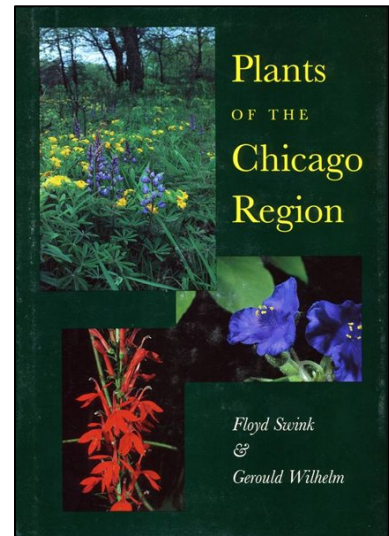


The Book and the Bog: The Serendipitous Story behind the Discovery and Conservation of a Significant Natural Area

Scott Namestnik

When I moved to Indiana in September 1998 and began monitoring mitigation wetlands, I quickly realized that although my prior field botany training had given me an excellent background on plant identification in the Midwestern United States, I still had a lot to learn about the flora of the Great Lakes region. I immediately became aware of the "new" 4th edition of *Plants of the Chicago Region* by Floyd Swink and Gerould Wilhelm. Sitting in a closet-sized "botany" room with poor lighting and ventilation, crammed between a bathroom and a conference room, I immersed myself in this revolutionary work, pouring through "unknowns" and learning as much as I could in a short period of time about our flora. I quickly realized why so many of my colleagues referred to this work as the "plant bible" of the 22 counties surrounding the south side of Lake Michigan. Over the next 15 years, as the dust cover of my copy of this tome became tattered with age and the pages became smudged with dirt, I learned of an effort to not only update this flora, but to improve upon it by adding insect associations, illustrations, descriptions of taxa, etymological information, and more, leading to a full ecological synthesis of the Chicago region. With millions of others, I awaited the publication of this unimaginable work, each successive year hearing that the book would be ready in about five years.



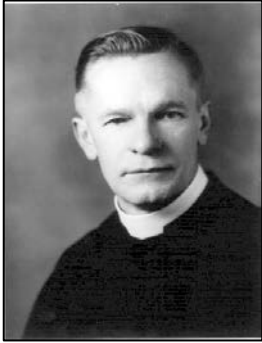
Plants of the Chicago Region, 4th edition (1994)



Scheuchzeria palustris

Fast-forward to the winter/spring of 2014. As I prepared for another exciting field season, I received a call from Jerry Wilhelm, the junior author of *Plants of the Chicago Region* and forthcoming senior author of the revised and expanded *Flora of the Chicago Region*. Jerry was in the process of going through known county distributions for species that would be treated in the new flora, and he wanted to know if I'd ever seen the somewhat inconspicuous *Scheuchzeria palustris* (rannoch-rush) within the Chicago region. Although I'd seen this odd plant of *Sphagnum* bogs and a more northern geographical distribution in North America years previously in northeast Ohio, I had not seen it locally. As Jerry and I talked, I flashed-back to a journal article I'd read years ago by Father Julius Nieuwland, a chemist and botanist at the University of Notre Dame from 1904 to 1936.

Though he may be best known for his chemistry work that eventually led to the invention of neoprene, to me, Father Nieuwland was the botanist who regularly used his pistol to shoot branches out of trees if they were too high to reach for an identification. As a result of his numerous botanical contributions, the herbarium at



Father Julius
Nieuwland

Notre Dame (Greene-Nieuwland Herbarium) bears his name. In 1909, Father Nieuwland founded *American Midland Naturalist*, a respected peer-reviewed scientific journal focusing on natural history that continues to be published regularly to this day. The article that I'd read, authored by Father Nieuwland and appearing in the journal that he founded, was one in a series called Notes on Our Local Plants. The 13-part series was published between 1912 and 1915 to document the flora as he knew it in northwest Indiana and southwest Michigan. While still on the phone with Jerry, I found a copy of Notes on Our Local Plants - II, published in 1913, and I read him the following account for *Scheuchzeria palustris*:

(Marshall Co.) Hessler, Lake Maxinkuckee, H. W. Clarke; Millers, Ind., Bastin; Chain Lakes, Ind. (St. Joseph Co.), I have found it in open spaces in tamarack bogs commonly throughout the region, associated with *Sarracenia purpurea*, *Oxycoccus macrocarpus* or *Drosera rotundifolia*, *Menyanthes trifoliatus* (Buckbean). Other places where I have seen it without collecting it are; Bankson Lake (3 miles east) Dune Park, Lakeville, North Liberty, Tamarack (LaPorte Co.).

This meant that Hessler had reported the species from Marshall County, Clarke [Clark] had reported it at Lake Maxinkuckee (also in Marshall County), and Bastin had reported it in Millers (Lake County). In addition, Father Nieuwland had observed *Scheuchzeria palustris* at Bankson Lake (Michigan), Dune Park (Porter County), Lakeville and North Liberty (St. Joseph County), and Tamarack (LaPorte County), but most interesting to me was his fairly detailed mention of the species from Chain Lakes in St. Joseph County, where he found it "commonly" in tamarack bogs. Shortly after Jerry and I ended our conversation, I turned to Google Earth to see if I could find any tamarack bogs around North or South Chain Lake in western St. Joseph County.

When in college, I took an aerial photography interpretation course, and I'd used aerial photos regularly at work to determine where possible wetlands were located or to look for infestations of invasive species such as *Phalaris arundinacea* (reed canary grass). You can see a lot using free aerial imagery if you know what you're looking for. In this case, using Google Earth, I fairly quickly keyed in on a bog signature just north of North Chain Lake and south of US-20. This area showed a non-forested wetland community in the shape of a former kettle lake with what appeared to be the telltale shrubby moat surrounding what I thought looked like possibly a bog. Further, I



Bog signature on
aerial photograph

keyed in on a patch of subtly differently colored green trees near the middle of the feature, and I made an educated guess that these were *Larix laricina* (tamarack) trees. I quickly became convinced that this was one of the tamarack bogs where Father Nieuwland had observed *Scheuchzeria palustris* over 100 years prior.

My next step was to field verify what I was seeing on Google Earth, so I contacted local conservationist Steve Sass and Indiana Department of Natural Resources - Division of Nature Preserves Ecologist Roger Hedge to set up a site visit. On August 18, 2014, the three of us set out on an expedition into this area to find out if in fact it was a bog. After a bit of a walk to get to the area, we found ourselves tangled in a dense thicket of *Cephalanthus occidentalis* (buttonbush) shrubs in two to three feet of water. After pushing through this shrubby moat, the view abruptly opened into what we were hoping to find... a bog, complete with *Sphagnum* spp. (sphagnum moss) mats, *Toxicodendron vernix* (poison sumac), *Chamaedaphne calyculata* var. *angustifolia* (leatherleaf), *Salix pedicellaris* (bog willow), *Salix sericea* (silky willow), *Spiraea tomentosa* (steeplebush), *Triadenum virginicum* (marsh St. John's wort), and *Vaccinium corymbosum* (highbush blueberry)! As we searched more closely, we found other bog indicators, such as *Carex canescens* (gray bog sedge), *Drosera rotundifolia* (round-leaved sundew), *Platanthera clavellata* (club-spur orchid),



Lydick Bog

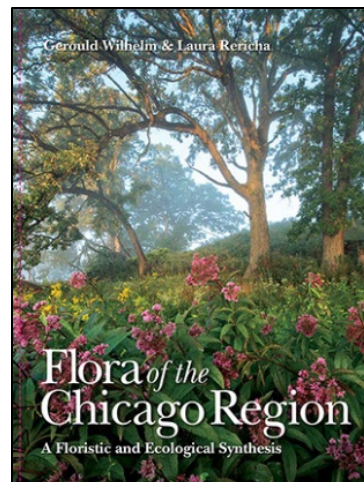
Sarracenia purpurea (purple pitcher plant), and *Vaccinium macrocarpon* (large cranberry). And soon, we saw that large patch of *Larix laricina* that I'd seen and identified from Google Earth, near the middle of the bog. Steve was dumbfounded as to how I could have found this place and even identified the tamaracks just by looking at Google Earth. Unfortunately, we were not able to locate *Scheuchzeria palustris*, but we quickly realized we had discovered a significant natural area that was as yet unprotected.

Upon returning home that evening, I started entering the plant list that we'd documented into the Floristic Quality Index, a means of determining the natural area quality of a given area based on the plant species growing there. With each species I entered, I became more excited in anticipation of seeing the end result. After our few-hour foray into a portion of the bog on a mid-August day, our inventory resulted in an astounding mean coefficient of conservatism (C) value of 7.2 (a site with a mean C value of 4.5 or higher is said to have natural area quality)! While in the field, we discussed protection of this area and who may be interested, and all signs pointed to Shirley Heinze Land Trust as the most likely option. By the end of the month, Steve had put together detailed information and a history of property ownership around the vicinity of what I'd started referring to colloquially as Lydick Bog. We sent that along with the plant inventory to Shirley Heinze Land Trust with a

suggestion that they look into the potential of acquiring the bog. Unfortunately the bog was located on several parcels that were all under different ownership. This would prove to be a challenge for protection of the entire area.

About a year passed and I hadn't heard much more about the protection of the Lydick Bog area. At some point, Steve realized that the property including the eastern portion of the bog and surrounding wetlands, upland forest, and agricultural fields to the east were for sale. The timing was perfect! On September 15, 2015, Steve and Roger joined the Shirley Heinze Land Trust land acquisition team on a trip to Lydick Bog to see if the land trust would be interested in purchasing the property. By November of 2015, Shirley Heinze Land Trust was in the process of raising money and negotiating to purchase the property! On June 27, 2016, less than two years from when we first visited the bog, Shirley Heinze Land Trust officially announced that they had purchased the 176-acre property that included the eastern portion of the bog, their first property in St. Joseph County. Everything had fallen into place... it was one of those "right place at the right time" happenings that allowed for the long-term protection of this rare bog community.

Since that time, the highly praised 10.5 lb. *Flora of the Chicago Region: A Floristic and Ecological Synthesis* by Gerould Wilhelm and Laura Rericha has been published (2017), and Shirley Heinze Land Trust has purchased an additional two acres at Lydick Bog to allow for public access to the property. The search for *Scheuchzeria palustris* continues, but as a result of a timely phone call during the preparation of *Flora of the Chicago Region*, the important historical botanical records kept and published by Father Nieuwland over a century ago, and our unsuccessful field search for this cryptic plant in recent years, a discovery was made that has resulted in the preservation of a unique natural community. Now generations long beyond ours can enjoy this amazing piece of our natural history, as a substantial portion of Lydick Bog is being preserved by Shirley Heinze Land Trust in perpetuity.



Flora of the Chicago Region
(2017)

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