

Chris Baer
Belmont, Michigan

December 16, 2002

Dear Chris (and the Grand Rapids Audubon Club),

Enclosed please find a species list for the Maher Audubon Sanctuary that was generated during the spring, summer and fall of 2002. This list was compiled during 4 separate visits that I made to the site. The visits occurred on March 18, May 13, June 18, and September 30.

The list represents taxa that I positively identified at the site. This should not be thought of as an absolute final account of the plant species at Maher Sanctuary. I'm certain there are some plants I have missed, others were not identifiable to me when I found them (lack of reproductive parts, etc.), and still others may not have appeared this year, but may do so in coming years (orchids are one group that are notorious for this type of behavior). Given this qualification, I did attempt to cover the entire property at least once, and I would estimate this list represents well over 90% of the species that are growing in the Sanctuary.

The list was compiled using a database that originated with Michigan Department of Natural Resources Wildlife Division Natural Heritage Program (from a publication entitled, Floristic Quality Assessment with Wetland Categories and Computer Application Programs for the State of Michigan). The categories listed give indication whether the species is native or non-native (N/A), the species coefficient of conservatism (C) which is a relative measure of how dependent the species is on pristine, undisturbed habitats (0 = disturbance species, 10 = intolerant of disturbance), the species coefficient of wetness (CW), an indicator of habitat moisture preference (-5 = aquatic, +5 = xeric), and a measure of relative abundance (1 = infrequent, 5 = pervasive).

On the last page you will find a statistical summary for the site. The Floristic Quality Index (Native) gives a relative value of overall botanical quality. The extremely high score for this category (65.9) indicates that this site is truly remarkable in its botanical quality and diversity. The Michigan DNR has stated that "Areas registering in the 50s and higher are extremely rare and represent a significant component of Michigan's native biodiversity and natural landscapes" (from the above cited publication).

I cannot overemphasize the beauty and conservation significance of this parcel. I found 18 species with a coefficient of conservatism of 8 or higher, including 6 species with coefficient of conservatism of 10. This clearly indicates that sections of this property have likely been unaltered from presettlement times. A notable element of this survey is that a total of 67 of these species have not officially been recorded for Barry County (a county which I assume has not received a great deal of attention by botanists). Although this survey does not report any state listed species, there were a couple plants I was unable to positively confirm that I do believe are state listed (they are not included on this inventory list because of my uncertainty). I will follow up on these species in 2003 and attempt to make positive identification.

I identified 31 non-native species, most of which occur in the dry upland areas. The most problematic of the non-native species is probably *Elaeagnus umbellata* (Autumn olive). Any efforts you can take to diminish the presence of this species would be of great benefit. I was comforted to find no *Lythrum salicaria* (Purple loosestrife), *Alliaria petiolata* (Garlic mustard) or *Rhamnus cathartica* or *R. frangula* (Buckthorn). I encourage your group to continue to be on the lookout for these non-native invasives, yet it is heartening that at this time they do not appear to have achieved a presence.

I thank you for the opportunity to do this work and to get to know this impressive parcel of land. I will be happy to continue to provide botanical and conservation consultation as needed. I will also keep you informed of any further visits I make to the site and any additions to this list that may result from subsequent visits.

Congratulations on being caretakers of such a lovely portion of the Creation. I offer you my sincere encouragement as you continue to nurture and keep this valuable representation of diversity and beauty.

Sincerely,
Dr. David Warners
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