

MICHIGAN STATE
UNIVERSITY
EXTENSION

March 27, 2012

Ms. Wendy Wilmers Longpre
Assistant Director
Parks, Recreation & Arts
819 Abbot Road
East Lansing, MI 48823

Dear Ms. Longpre,

First let me say that it is a pleasure to provide natural feature inventory services to the City of East Lansing. Many times we simply don't know what is in our own "backyard" and it is good to correct that to some extent.

As you requested, MNFI conducted a preliminary survey of the proposed Northern Tier Trail Extension at Abbot Park. The survey was conducted on March 24, 2012 and the results of survey, along with our interpretation and comments, are presented starting on the next page. I do want to reiterate a point I made during our phone conversation, that it is very early in the year to conduct such surveys. Nevertheless, we were able to identify over 40 plant species occurring along the proposed route, observed evidence of a fair number of animals during the reconnaissance, and were able to note a very nice stand of oak woods. However, due to the timing of the survey, do keep in mind that the results should be considered only a beginning and that additional plant and animal species would no doubt be recorded if surveys were conducted at a more optimal time. This is especially true with respect to the oak woods that resemble the natural community: wet-mesic flatwoods.



Michigan Natural
Features Inventory

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If you have any questions or comments on the report, or if we can be of further service, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink that reads "Brian J. Klatt".

Brian J. Klatt, Ph.D.
Director
MNFI

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ABBOT PARK, CITY OF EAST LANSING - NORTHERN TIER TRAIL EXTENSION
PRELIMINARY NATURAL FEATURES RECONNAISSANCE
MNFI Report 2012-04

Introduction

As part of their park planning and development efforts, the City of East Lansing requested that the Michigan Natural Features Inventory (MNFI) conduct a natural features inventory along the proposed route of a proposed trail expansion, referred to as the Northern Tier Trail Extension, at City's Abbot Park. Information gathered during the inventory is intended to facilitate preparation of grant applications in support of funding for the proposed extension.

Methods

A foot survey of the proposed route was conducted on March 24, 2012, by Dr. Brian Klatt of MNFI. During the survey, all plant species in a reasonably identifiable state were identified in the field or keyed using technical manuals. Additionally, anecdotal observations of animals, animal sign, and habitat conditions were made during the survey.

Results and Discussion

A total of 44 plant species were identified during the survey. Of these, 33 (75%) are native to Michigan. No threatened, endangered, or special concern species were observed at the time of the survey. A list of the species is presented in Table A-1, which also indicates whether they are native or non-native, as well as their wetland indicator status.

Fourteen animal species, or their sign, were observed. A list of the species is presented in Table A-2. No rare species were found, but two of these species, the Northern Flicker and the western chorus frog, are listed as Species of Greatest Conservation Need (SGCN) in the Wildlife Action Plan of the Michigan Department of Natural Resources. It should be noted that the western chorus frog was very abundant along the eastern 1/3rd of the proposed route. American robin was very common along the route and occurred as small flocks. Deer sign, in the form of tracks, was very abundant and three does were observed during the reconnaissance, as well as two hunter, tree-stands.

With respect to general habitat observations, it was found that the plant communities along much of the proposed route show evidence of disturbance related to human activities and that the vegetation largely represents a successional stage dominated by woody, colonizing species (e.g. boxelder). Additionally, a fair number of invasive species were present, such as Phragmites, though at the time of the survey, the invasive species did not dominate and appear to be limited to relatively small stands. While these observations tend to indicate that the area is not currently of high ecological value, other observations clearly speak to the contrary. Much of the route had small areas of standing water, and as noted above, the western chorus frog was very abundant in these areas, suggesting that the areas may serve as significant breeding sites for this SGCN. Some of the areas of standing water may also constitute "vernal pools" rather than just flooded meadow; these areas warrant further observation and evaluation. Vernal pools are considered to have high ecological value, as they serve important functions with respect to hydrology and

support amphibian breeding. The potential vernal pools along the route hosted not only western chorus frogs, but mallard ducks were also disturbed from some of these areas during the reconnaissance. A set of excellent examples of these apparent vernal pools is located at the westernmost end of the proposed route, near Coolidge Road.

It is interesting to note that most of the American robins observed occurred in small flocks. This is suggestive that the birds are still in migration. The habitat provided by Abbot Park is likely to serve as a stopover location for neo-tropical migrants, i.e. birds that nest in Michigan or even farther north, but which spend the winters in Central and South America. This function is known for Baker Woodlot on the campus of Michigan State University and which is almost directly south of Abbot Park. There is every reason to think that Abbot Park serves this function as well.

Perhaps the most intriguing area encountered during the reconnaissance was a small wooded area at the border between the "Villas" and "Beaumont" developments. The area is dominated by oaks, tentatively identified as bur and pin oaks; also present is linden. While this area is limited in size (a couple of acres), the plant species most resemble a natural community referred to as "wet-mesic flatwoods". The intriguing nature of this observation is that this particular plant community is currently thought to be limited to the Maumee Lake Plain of southeastern Michigan and this would be the first example of this community outside of that area, if further evaluation confirms the initial impression. Wet-mesic flatwoods is ranked as a "S2" community, meaning that it is considered imperiled in the state. Regardless of its ultimate classification, this area is of interest because of its lack of disturbance and the occurrence of spring ephemeral species such as trout lily and mayapple, both of which were observed with populations numbering in the hundreds, if not the thousands.

The observations above suggest that a trail constructed through this area provides a wide array of opportunities for interpretation, as well as volunteer stewardship, such as interpretation of:

- wetlands in general
- vernal pools
- urban wildlife (e.g. raccoons, white-tailed deer)
- non-urban wildlife (e.g. western chorus frogs)
- plant communities, including aspects of succession
- comparison of plant communities, e.g. boxelder stands versus the oak woods area
- the importance of stopover sites for migrating birds

It should also be kept in mind that the findings and suggestions reported here are based on a single site-visit to the area. It is a certainty that additional site visits throughout the growing season would result in substantially longer lists of flora and fauna... only adding to the possible interpretive opportunities.

Table A-1. Plant species observed along proposed trail extension. (Capitalized scientific names indicate non-natives)

<i>Scientific Name</i>	Common Name	Wetland Indicator Status	Physiognomy
<i>Acer negundo</i>	box elder	FACW-	Nt Tree
<i>Acer saccharinum</i>	silver maple	FACW	Nt Tree
ALLIARIA PETIOLATA	garlic mustard	FAC	Ad B-Forb
<i>Amelanchier laevis</i>	smooth shadbush	[UPL]	Nt Tree
<i>Apocynum cannabinum</i>	Indian hemp	FAC	Nt P-Forb
ARCTIUM MINUS	common burdock	[UPL]	Ad B-Forb
<i>Carex pensylvanica</i>	sedge	[UPL]	Nt P-Sedge
<i>Carex sp.</i>	sedge	-	-
<i>Carya ovata</i>	shagbark hickory	FACU	Nt Tree
<i>Cornus amomum</i>	silky dogwood	FACW+	Nt Shrub
<i>Cornus foemina (C. racemosa)</i>	gray dogwood	FACW-	Nt Shrub
<i>Cornus sericea (C. stolonifera)</i>	red-osier dogwood	FACW	Nt Shrub
DAUCUS CAROTA	Queen-Anne's-lace	[UPL]	Ad B-Forb
DIPSACUS FULLONUM	common teasel	[UPL]	Ad P-Forb
ELAEAGNUS UMBELLATA	autumn-olive	[FACU]	Ad Shrub
<i>Erythronium</i>	trout lily	[UPL]	Nt P-Forb
<i>Fraxinus pennsylvanica</i>	red ash	FACW	Nt Tree
HESPERIS MATRONALIS	dame's rocket	[UPL]	Ad P-Forb
LEONURUS CARDIACA	motherwort	[UPL]	Ad P-Forb
NEPETA CATARIA	catnip	FAC-	Ad P-Forb
<i>Phalaris arundinacea</i>	reed canary grass	FACW+	Nt P-Grass
<i>Phragmites australis</i>	reed	FACW+	Nt P-Grass
POA PRATENSIS	Kentucky bluegrass	FAC-	Ad P-Grass
<i>Podophyllum peltatum</i>	may apple	FACU	Nt P-Forb
<i>Populus deltoides</i>	cottonwood	FAC+	Nt Tree
<i>Populus tremuloides</i>	quaking aspen	FAC	Nt Tree
<i>Prunella vulgaris</i>	lawn prunella	FAC	Nt P-Forb
<i>Prunus virginiana</i>	choke cherry	FAC-	Nt Shrub
<i>Quercus macrocarpa</i>	bur oak	FAC-	Nt Tree
<i>Quercus palustris</i>	pin oak	FACW	Nt Tree
RHAMNUS CATHARTICA	common buckthorn	FACU	Ad Tree
<i>Rhus typhina</i>	staghorn sumac	[UPL]	Nt Tree
<i>Rosa palustris</i>	swamp rose	OBL	Nt Shrub
<i>Rubus occidentalis</i>	black raspberry	[UPL]	Nt Shrub
<i>Rubus strigosus (R. idaeus)</i>	wild red raspberry	FACW-	Nt Shrub
<i>Salix bebbiana</i>	Bebb's willow	FACW+	Nt Shrub
<i>Salix exigua (S. interior)</i>	sandbar willow	OBL	Nt Shrub
<i>Solidago altissima</i>	tall goldenrod	FACU	Nt P-Forb
<i>Tilia americana</i>	basswood	FACU	Nt Tree
<i>Toxicodendron radicans</i>	poison-ivy	FAC+	Nt W-Vine
TRIFOLIUM REPENS	white clover	FACU+	Ad P-Forb
<i>Urtica dioica</i>	nettle	FAC+	Nt P-Forb
<i>Vitis riparia</i>	riverbank grape	FACW-	Nt W-Vine

Wetland Indicator Status Notes:
OBL - Occur almost always in wetlands under natural conditions (>99-percent of the time)
FACW - Usually occur in wetlands (67 to 99-percent of the time) but occasionally found in non-wetlands
FAC - Equally likely to occur in wetlands or non-wetlands (34 to 66-percent of the time)
FACU Usually occur in non-wetlands (67 to 99-percent of the time) but occasionally found in wetlands
UPL - Occur almost always in non-wetlands under natural conditions (>99-percent of the time)
+ A frequency toward the higher end of a category (more frequently found
- A frequency toward the lower end of a category (less frequently found in wetlands)
Physiognomy Notes:
AD – Adventive (non-native) taxa
NT – Native taxa
A – Annual species
B – Biennial species
P – Perennial species
W – Woody (vine)

Table A-2. List of species observed, heard, or for which sign was seen.	
Group/Common Name	Scientific Name
Birds	
Blackbird, Red-winged	<i>Agelaius phoeniceus</i>
Cardinal, Northern	<i>Richmondia cardinalis</i>
Chickadee, Black-capped	<i>Parus atricapillus</i>
Crow, American	<i>Corvus brachyrhynchus</i>
Flicker, Northern	<i>Colaptes auratus</i>
Jay, Blue	<i>Cyanocitta cristata</i>
Mallard	<i>Anas platyrhynchos</i>
Robin, American	<i>Turdus migratorius</i>
Sparrow, Song	<i>Melospiza melodia</i>
Mammals	
deer, white-tailed	<i>Odocoileus virginianus</i>
rabbit, eastern cotton-tail	<i>Sylvilagus floridanus</i>
Raccoon (scat)	<i>Procyon lotor</i>
Squirrel (nest)	<i>Sciurus sp.</i>
Amphibians	
frog, western chorus	<i>Pseudacris triseriata triseriata</i>