Gibboney Marsh – Biological Inventory
Conducted by the
Sault Naturalists of Ontario and Michigan

The Sault Naturalists is an international club with about 130 members. We seek to promote the appreciation, preservation, and conservation of our natural heritage and to support other organizations with similar goals.

Report Submitted to: Central Algoma Freshwater Coalition
Report Completed: March, 2015

Report Prepared by: Don Hall

Field Inventory Conducted by: Ila Aho, Dave Euler, Don Hall, Marjorie Hall, Vivian Hall Jennifer Harvey, Mark Harvey, , Gail Jones, Jack Jones, Gale Koteles, Garry Koteles, Karen Mikoliew, Chuck Miller, Ron Prickett, Tom Shannon, Bill VanAtte, Val Walker

1.0 BACKGROUND

The Sault Naturalists Club of Ontario and Michigan (Sault Naturalists) was approached in 2013 by Edith Orr, President of the Central Algoma Freshwater Coalition (CAFC) to ask if the club would be interested in volunteering to complete a biological inventory of Gibboney Marsh (also known as Gibboney Lake) which is northeast of Desbarats, Ontario, near Gordon Lake Road. The CAFC was particularly interested in any species-at-risk which might be found on the property. The club felt that field work could be carried out as part of regularly scheduled outings, and Don Hall agreed to compile the data and write a final report.

2.0 STUDY AREA

Study Area Outlined on Google Earth Image

3.0 Inventory Methodology

We used Google Earth imagery to delineate areas with (apparently) similar vegetation, this is similar to stand delimitation in forest resource inventory, but since these are not stands of trees we referred to the smaller areas as "plant communities". We planned to visit all the areas in both winter and summer, listing all identifiable species and searching for species-at-risk in particular. Most inventory work would be accomplished as part of our regularly scheduled outings.

3.1 Field Surveys

Sault Naturalists visited the area on 6 occasions, as follows:

Late summer 2013 – Two Sault Naturalists made an informal attempt at canoe access via the bridge on Gordon Lake Road. They found water levels too low, and access very difficult.

March 5, 2014 – Thirteen Sault Naturalists visited Gibboney Marsh on skis and snowshoes, via the Crown Land on Old Mill Road (illustrated in Appendix 3). Good snow conditions allowed easy access to the entire area. We were able to identify and map all tree and taller shrub species, and we also dug down to ground level in several spots to check out ground vegetation. Alternative summer access points were explored. Though it is within sight of farms and Gordon Lake Road, the marsh feels like a wild area, and is very pleasant to explore in wintertime. Wildlife signs included Beaver, Coyote, Mink and River Otter

June 14, 2014 – Four Sault Naturalists canoed all the open water in the marsh. High water allowed good canoe access from Gordon Lake Road. We identified all vegetation, birds and herptiles as we were able. Recorded wetland bird songs elicited responses from several secretive species.

June 18, 2014 – Two Sault Naturalists attempted to access the marsh on foot, over the crown land on Old Mill Road. The plan was to set up a spotting scope on the hillside near the beaver dam and watch/listen to the early morning bird activity. What appeared to be a good access point in the winter was in fact difficult, if not dangerous in early summer. The trail was littered with large, sharp rocks that were well hidden by very tall, wet grasses. The footing was treacherous. Poison Ivy was everywhere. Access to the hillside was not possible, so we listened and watched for birds while standing atop some of the larger rocks. Not a very successful morning.

July 24, 2014 – Two Sault Naturalists canoed the marsh, accessing the area from the bridge on Gordon Lake Road. Water levels were down, but access from the bridge was not too difficult. The plan was to paddle to, then walk through the boggy area to the northeast of the open water. Bogs are often home to uncommon and interesting orchids. Unfortunately, very shallow water did not allow access to the bog. It was too shallow and weedy to paddle, and too deep to wade. A young, strong person in chest waders might be able to inventory the bog successfully. In spite of poor access to the bog, we were able to add to the inventory of all areas accessible by open water.

July 20, 2014 – Having heard rumors that Black Terns (a threatened species) have nested at Gibboney, two Sault Naturalists spent 15 minutes scanning the marsh with a spotting scope, from Gordon Lake Road. Black Terns, when present, are easy to spot. No Black Terns were observed.

October 24 and 25, 2014 – Brief stops and observations from Gordon Lake Road – migrating Tundra Swans noted.

4.0 INVENTORY RESULTS

4.1 Plant Species Documented in the Study Area

Scientific Name	Common Name	Native
Sphagnaceae		
Sphagnum spp.	Sphagnum moss	Yes
Equisetaceae		
Equisetum arvense	field horsetail	Yes
Cupressaceae		
Thuja occidentalis	eastern white cedar	Yes
Pinaceae		
Abies balsamea	balsam fir	Yes
Picea glauca	white spruce	Yes
Pinus strobus	white pine	Yes
Ranunculaceae		
Thalictrum pubescens	tall meadow-rue	Yes
Ulmaceae		
Ulmus americana	white elm	Yes
Fagaceae		
Quercus rubra	red oak	Yes
Betulaceae		
Alnus incana	speckled alder	Yes
Betula papyrifera	white birch	Yes
Corylus cornuta	beaked hazel	Yes
Ostrya virginiana	ironwood	Yes
Salicaceae		
Populus tremuloides	trembling aspen	Yes
Populus balsamifera	balsam poplar	Yes
Salix spp.	willow	Yes
Primulaceae		
Trientalis borealis	starflower	Yes
Grossulariaceae		
Ribes triste	wild red currant	Yes
Rosaceae		
Amelanchier spp.	serviceberry	Yes
Fragaria virginiana	wild strawberry	Yes
Prunus virginiana	choke cherry	Yes
Prunus pensylvanica	pin cherry	Yes
Potentilla palustris	marsh cinquefoil	Yes
Rosa acicularis	prickly rose	Yes
Rosa blanda	smooth rose	Yes
Spirea alba	narrow-leaved meadowsweet	Yes
Rubus idaeus	wild red raspberry	Yes
Rubus pubescens	dwarf raspberry	Yes
Rubus allegheniensis	common blackberry	Yes
Myricaceae		
Myrica gale	sweetgale	Yes
Anacardiaceae		
Toxicodendron radicans	poison ivy	Yes
Ericaceae		

Scientific Name	Common Name	Native
Chamaedaphne calyculata	leatherleaf	Yes
Ledum groenlandicum	labrador tea	Yes
Fabaceae		
Trifolium spp.	clover	Yes
Cornaceae		
Cornus canadensis	bunchberry	Yes
Cornus stolonifera	red-osier dogwood	Yes
Cornus alternifolia	alternate-leaf dogwood	Yes
Aceraceae		
Acer rubrum	red maple	Yes
Acer spicatum	mountain maple	Yes
Balsaminaceae		
Impatiens capensis	jewel weed	Yes
Araliaceae		
Aralia nudicaulis	wild sarsaparilla	Yes
Apocynaceae		
Apocynum androsaemifolium	spreading dogbane	Yes
Oleaceae		
Fraxinus nigra	black ash	Yes
Fraxinus pensylvanica	red ash	Yes
Caprifoliaceae		
Diervilla lonicera	bush honeysuckle	Yes
Lonicera canadensis	fly honeysuckle	Yes
Sambucus racemosa	red-berried elderberry	Yes
Asteraceae		
Chrysanthemum leucanthemum	ox-eye daisy	No
Eupatorium maculatum	spotted joe-pye weed	Yes
Taraxacum officinale	common dandelion	No
Cyperaceae		
Carex spp.	sedge	Yes
Scirpus spp.	bulrush	Yes
Typhaceae		
Typha latifolia L.	common cattail	Yes
Liliaceae		
Clintonia borealis	bluebead-lily	Yes
Maianthemum canadense	wild lily-of-the-valley	Yes
Maianthemum racemosum	false Solomon's seal	Yes
Polygonaceae		
Polygonum spp.	water smartweed	Yes
Nymphaeaceae		
Nymphaea odorata	white water lily	Yes
Nuphar variegatum	yellow pond lily	
Potamogetonaceae		
Potamogeton spp.	pondweed	Yes
Lentibulariaceae		
Utricularia	bladderwort	Yes
Pontederiaceae		
Pontederia cordata	pickerelweed	Yes
Alismataceae		
Sagittaria latifolia	broadleaf arrowhead	Yes

Scientific Name	Common Name	Native
Ceratophyllaceae		
Ceratophyllum echinatum	coontail	Yes

4.2 Discussion of Plant Species and Plant Communities

We found Gibboney Marsh to be a diverse, interesting and beautiful area.

- We did not find any plant species known to be at risk.
- "Open water" areas are shallow, 2 to 3m in depth and feature a great deal of submergent vegetation.
- Most of the wetland would be properly termed a marsh, dominated by submergent vegetation, water lilies and pickerelweeds.
- The northwest corner of the wetland features a sphagnum/ericaceous bog and, further inland a tamarack/black spruce swamp.
- The northeast corner includes areas dominated by willow shrubs, and also wet pasture
- The southern and southeast areas are dominated by willow shrubs and, further inland, Red Ash swamp.
- Several small areas are dominated by cattails.
- Poison ivy is very common along the trail that leads to the wetland from Old Mill Road

4.3 Bird Species Documented in the Study Area

Species	Sault Ste. Marie District Abundance and Status	Breeding Evidence
Great Blue Heron	C-MB	H
American Bittern	C-MB	H
Canada Goose	A-MBW	H
Tundra Swan	A-MW	X
Mallard	C-MBW	FY
Wood Duck	C-MB	H
Blue-winged Teal	C-MB	H
Turkey Vulture	C-MB	X
Broad-winged Hawk	C-MB	H
Bald Eagle	C-MBW	H
Peregrine Falcon	U-MBW	X
Virginia Rail	U-MB	S
Sora	U-MB	S
Sandhill Crane	C-MB	H
Caspian Tern	U-MB	X
Belted Kingfisher	C-MB	H
Downy Woodpecker	A-MBW	H
Pileated Woodpecker	C-MB	X
Eastern Kingbird	C-MB	H
Alder Flycatcher	C-MB	S
Eastern Phoebe	C-MB	H
Tree Swallow	C-MB	H
Barn Swallow	U-MB	H
Common Raven	C-Z	P
Black-capped Chickadee	C-MBW	S
Sedge Wren	R-MB	S
Veery	C-MB	S
American Robin	A-MBW	S
Cedar Waxwing	C-MBW	H
Red-eyed Vireo	A-MB	S
Nashville Warbler	C-MB	S
Northern Waterthrush	U-MB	S
Chestnut-sided Warbler	A-MB	S
Black-throated Green Warbler	C-MB	S
Black and White Warbler	C-MB	H
Yellow Warbler	A-MB	S
American Redstart	A-MB	S

Common Yellowthroat	C-MB	S
Indigo Bunting	C-MB	S
Savannah Sparrow	A-MB	X
Song Sparrow	A-MB	S
Swamp Sparrow	C-MB	S
Red-winged Blackbird	A-MB	P
American Goldfinch	C-MBW	H

Abundance
A = Abundant C = common U = uncommon R = rare

Status
B = breeding M = migrant W = winter visitor Z = resident

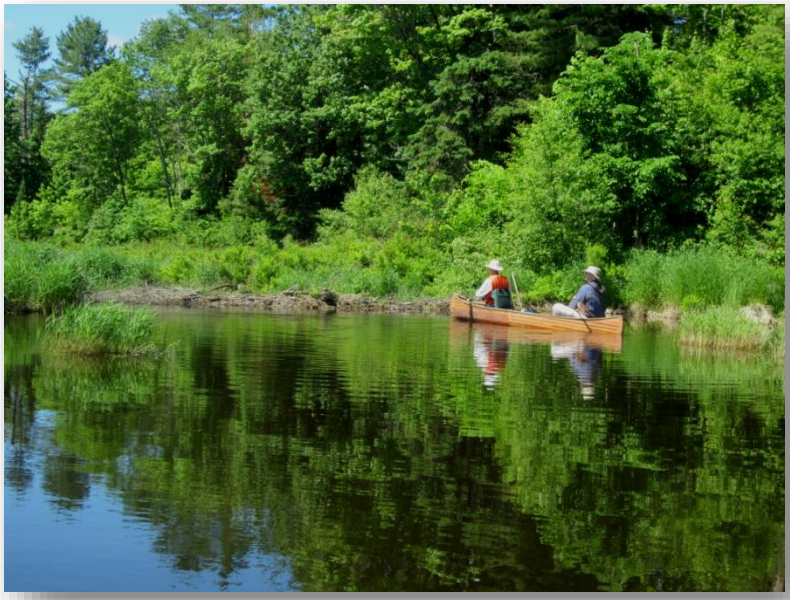
Breeding Evidence Codes

	Observed
X	Species observed in the study area
	Possible Breeding
H	Species observed in its breeding season in suitable nesting habitat.
S	Singing male present, or breeding calls heard, in its breeding season in suitable nesting habitat.
	Probable Breeding
P	Pair observed in their breeding season in suitable nesting habitat.
T	Permanent territory presumed through registration of territorial song on at least 2 days, a week or more apart, at the same place.
D	Courtship or display between a male and a female or 2 males, including courtship feeding or copulation
V	Visiting probable nest site
A	Agitated behaviour or anxiety calls of an adult
B	Brood patch on adult female or cloacal protuberance on adult male. Nest-building or excavation of nest hole
N	Nest-building or excavation of nest hole
	Confirmed Breeding
DD	Distraction display or injury feigning
NU	Used nest or egg shell found (occupied or laid within the period of the study)
FY	Recently fledged young or downy young, including young incapable of sustained flight
AE	Adults leaving or entering nest site in circumstances indicating occupied nest
FS	Adult carrying fecal sac
CF	Adult carrying food for young
NE	Nest containing eggs
NY	Nest with young seen or heard

4.4 Discussion of Bird Species Found in the Area

Gibboney Marsh is an interesting, diverse and productive wetland. A more extensive spring survey would no doubt find breeding evidence for a number of waterfowl, rails and other wetland birds. It is a regular feeding area for Caspian Terns, Great Blue Herons and American Bitterns. We did not confirm breeding for any species-at-risk, but we did find a number of noteworthy bird species:

1) **Barn Swallow** – a threatened species in Ontario. Though we did not actually observe this species eating insects, we did observe two Barn Swallows clearly foraging over the marsh. It is reasonable to assume that the swallows nest in nearby farm buildings and regularly feed over Gibboney Marsh.
2) **Peregrine Falcon** – a species of special concern in Ontario. Though this species was not observed during our surveys we do have a reliable report of a Peregrine Falcon on a fencepost on Gordon Lake Road adjacent to the wetland. Peregrines often hunt over wetlands and it seems likely that the marsh is occasionally used for this purpose.
3) **Sedge Wren** – Considered rare in the Algoma District. We detected (by vocalization) only one male, but this secretive species often nests in colonies so it is likely that more wrens were present. Sedge Wrens show low fidelity to nesting areas; they move around from year to year. It is believed that variations in water level encourage these wrens to move elsewhere, so efforts to stabilize water levels (such as a beaver baffler) might encourage them to colonize the wetland on a long-term basis.
4) **Sandhill Crane** – Common in the Algoma District. Cranes were observed in the wetland during our surveys, and we have reliable reports of nesting prior to 2013.
5) **Black Tern** – *not observed*. A species of special concern in Ontario. Having heard rumors Black Terns nesting in Gibboney Marsh we were particularly interested in watching for the species. Black Tern colonies are easily detected and we are confident that there was no nesting of this species in 2014.



4.5 Other Species Documented in the Study Area

Insects
Tiger Swallowtail Butterfly
Many damselfly species
Many dragonfly species
Herptiles
Green frog
Painted Turtle
Mammals
Beaver
River Otter
Coyote
Mink

5.0 General Recommendations

Gibboney Marsh is a diverse, interesting and valuable wetland. Efforts to maintain it in its current state are certainly warranted. Many Ontario wetlands have been drained for agriculture or filled in for housing developments; we must save the productive marshes that remain.

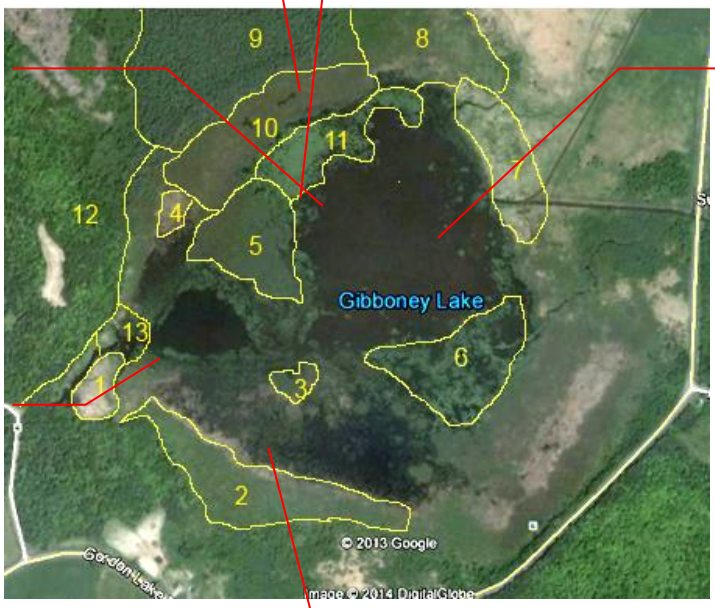
1) When water levels are high enough to allow canoe/kayak access from Gordon Lake Road the wetland has educational and recreational potential. It is easily accessed and not prone to wind and waves as are many local marshes. Given sufficient water the Sault Naturalists would certainly be regular visitors. On one of our visits two kayakers were also enjoying the close contact with nature that Gibboney Marsh offers. It is quite possible that local high school or college classes would find the wetland a valuable location for field work.
2) We understand that beaver bafflers are under consideration to minimize conflicts with local landowners. We feel this is a good idea, provided reasonably high water levels are maintained.
3) Some maps refer to this wetland as "Gibboney Lake". We suggest that Gibboney Marsh is a more appropriate name.
4) Anyone accessing the wetland from Old Mill Road should beware of poison ivy and sharp stones

6.1 Wetland Photographs

Tamarack Swamp
Facing East

Bog and Tamarack Swamp
Facing Northeast

Bog and Tamarack Swamp
Facing Northwest



Coyote Tracks

Facing Southwest from Outlet

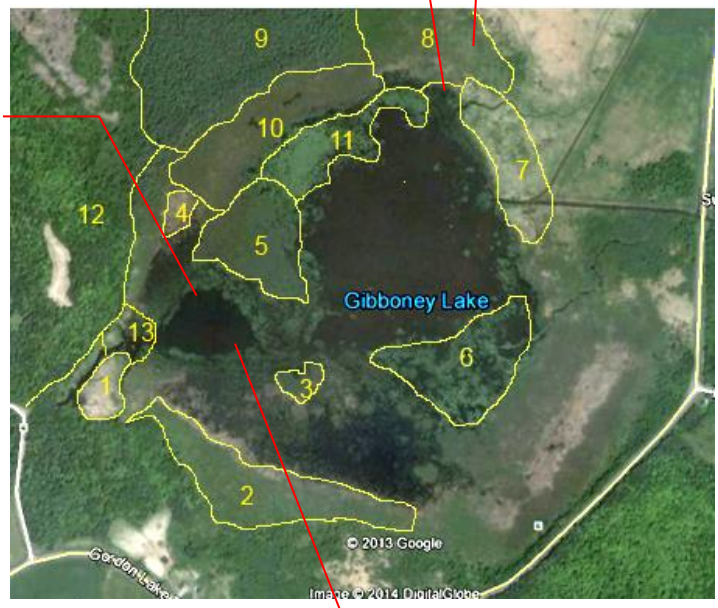
Willows, Red Ash in Background
Facing South

6.2 Wetland Photographs

Low Willows
Facing North

Red Ash
Facing North

Scirpus (Sedges)
Facing East

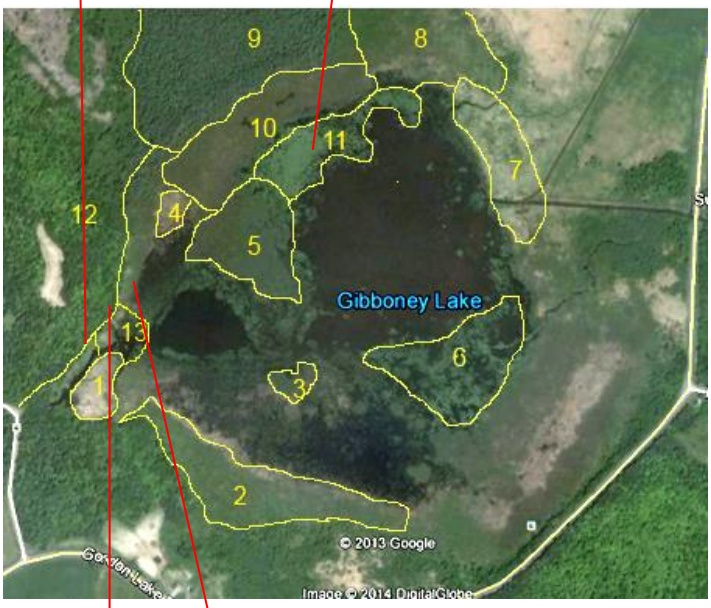


Facing West toward Outlet

6.3 Wetland Photographs

Near Outlet
Facing Northeast

Edge of Tamarack Swamp
Facing East



Near Outlet
Facing West

Pileated Woodpecker Food Source – Dead White Pine

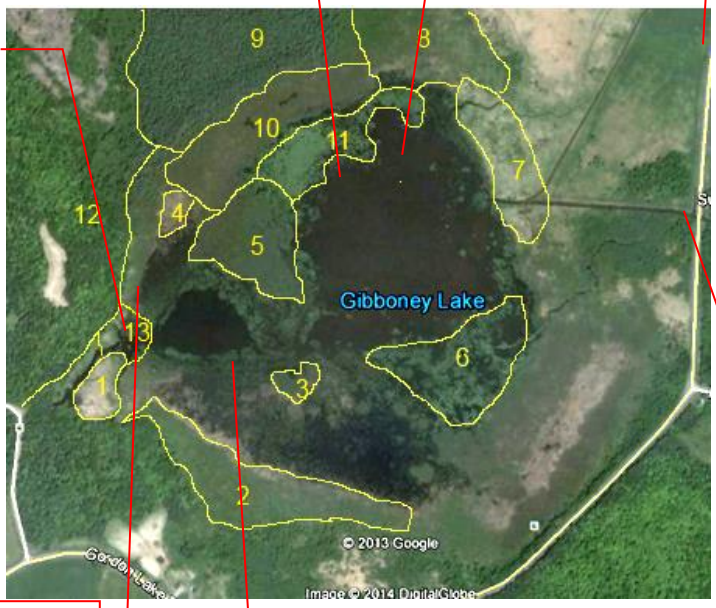
6.4 Wetland Photographs

Bog and Tamarack Swamp
Facing Northwest

Marsh, Bog and Tamarack
Swamp Facing Northwest

Wet Pasture
Facing Southeast

Beaver Dam near Outlet



Red Osier
Near the bridge

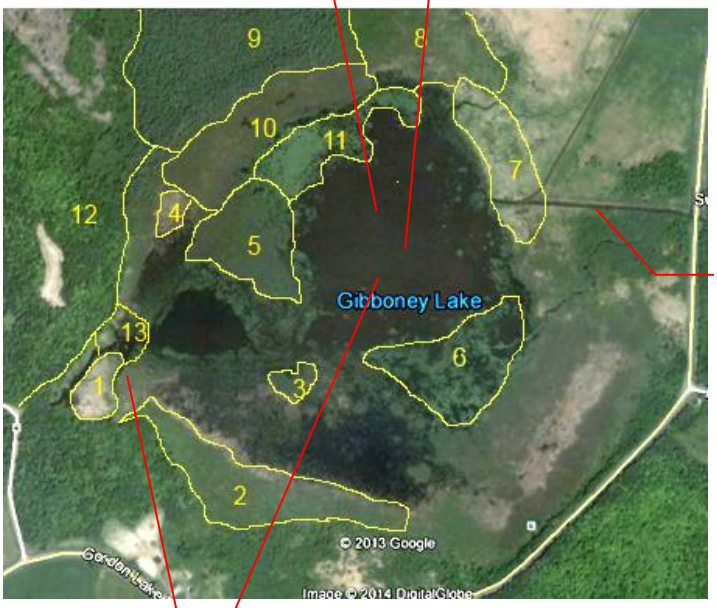
Tall Grasses near the Outlet
Facing Southeast

Marsh with Pickerelweed
Facing West

6.5 Wetland Photographs

Marsh, Bog, Tamaracks
Facing West

Marsh
Facing Southwest



Channel
Facing East toward
Gordon Lake Road

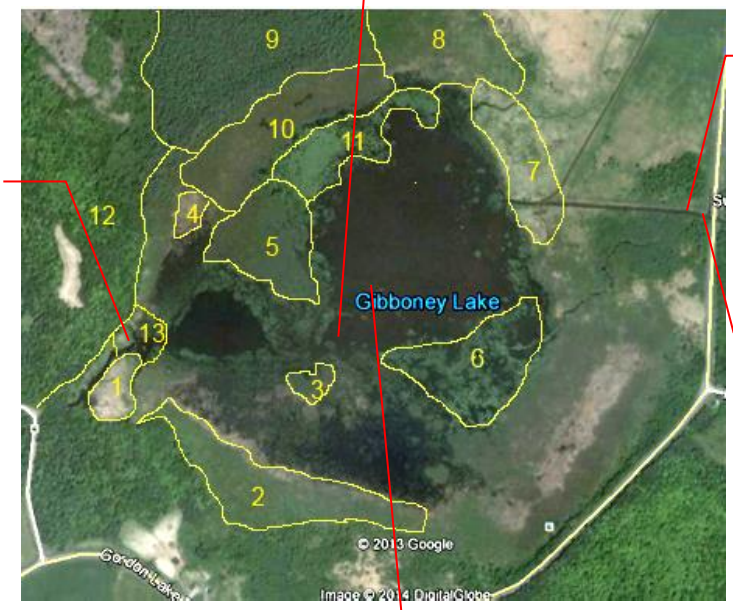
Marsh, Open Water, Farm
in Background
Facing Northeast

Tall Grasses and Sedges
Near Outlet
Facing South

6.6 Wetland Photographs

Four Views of
Beaver Dam

Open Water
Facing Southwest



Suddaby Creek
Bridge

Green Frog

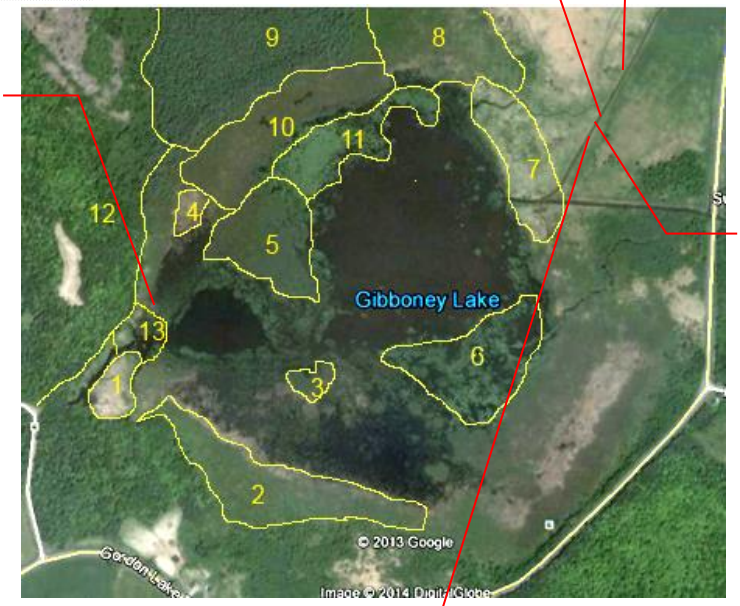
Marsh and Open Water
Facing Southwest

6.7 Wetland Photographs

Erosion of Wet Pasture

Near End of Navigable Canal
Facing Northeast

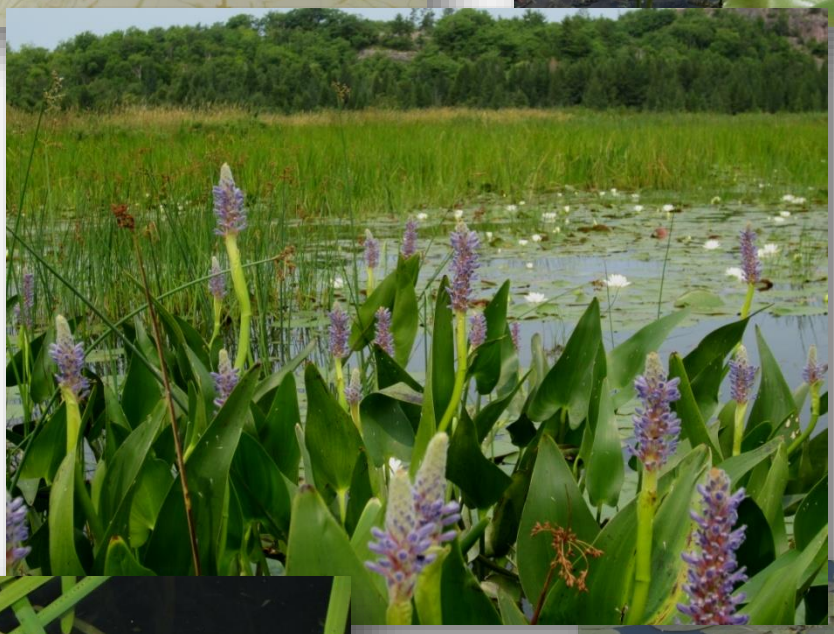
Beaver Lodge near Outlet



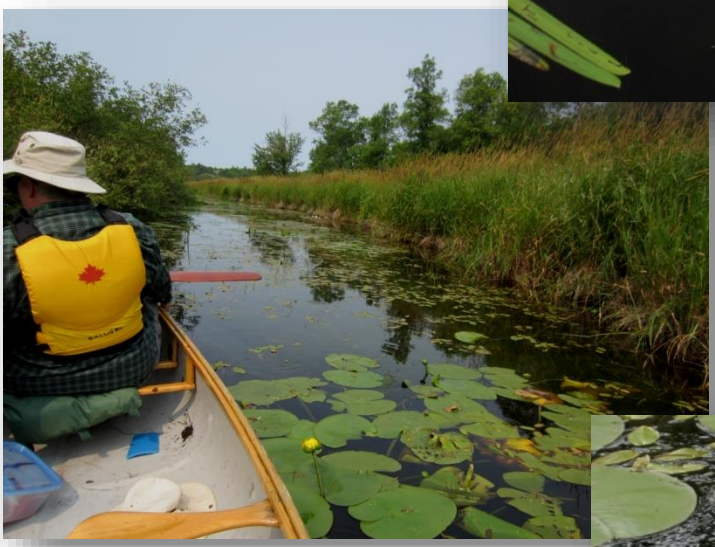
Drainage Canal
Through Wet Pasture
Facing Northeast

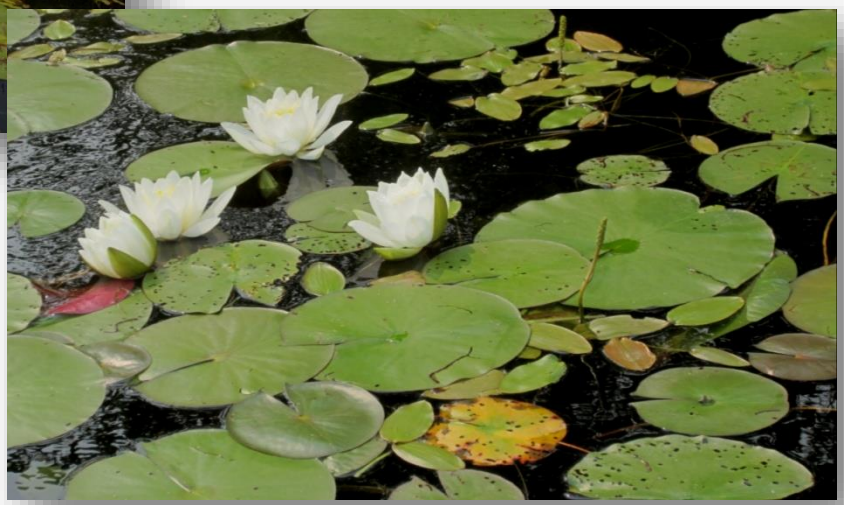
Electric Fence
Crossing Drainage Canal

7.0 Wetland Flora

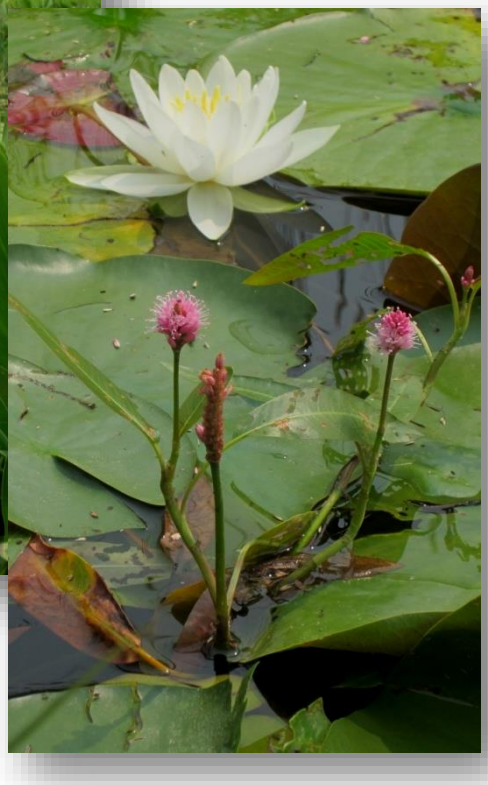


7.1Wetland Flora

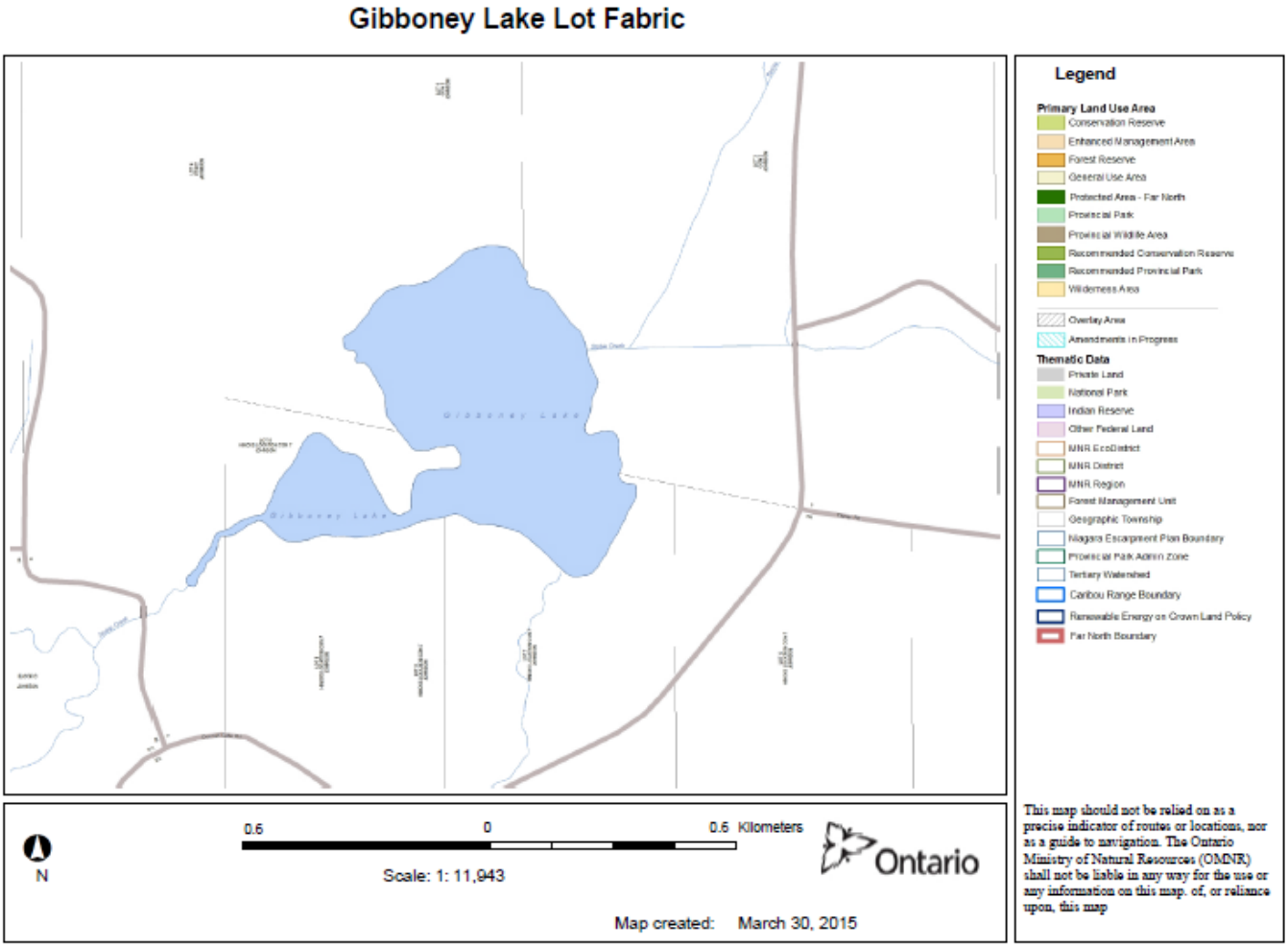




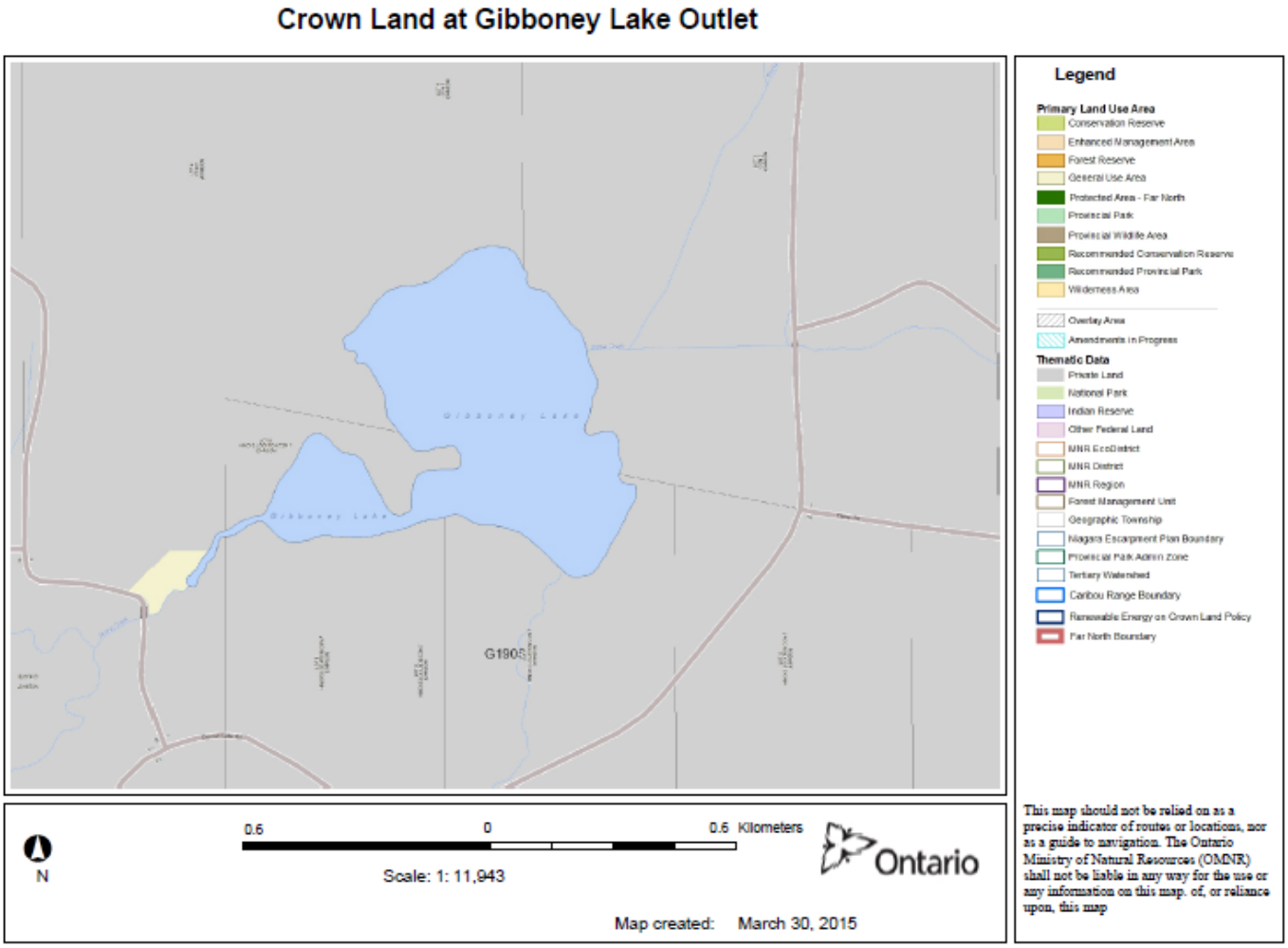
7.2 Wetland Flora



Appendix 1 – Gibboney Lake Lot Fabric



Appendix 2 – Crown Land at Gibboney Lake Outlet



Appendix 3 – Tally Sheet Used in Field Work

Observers: _____

Gibboney Lake Inventory 2014

sault naturalists

Access from bridge on Gordon Lake Road

Outlet, small wedge of crown land (portage)

- Table below summarizes vegetation notes from winter survey.
- Identify all living things that you can.
- Feel free to add to the table below, take notes in the blank table, write notes on the Google Earth image or take notes on back of the page

1		8	Low growing willow and alder
2	Willow along north edge, otherwise red ash	9	
3		10	Tamarack, leatherleaf, lab. tea, sphagnum
4		11	Low shrubs, leatherleaf
5	Scattered cattails, small willow	12	Forest – white spruce, red maple, pin cherry, eastern red elderberry
6	Scattered cattails, willow	13	Beaver dam, lodge
7	Low vegetation (buried under snow)		

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
Unnumbered areas (describe here or delineate on image)	