

AN ECOLOGICAL ASSESSMENT OF THE MARCKWALD PROPERTY
IN SECTION 19 T 29 N - R 10W, PENINSULA TOWNSHIP, GRAND
TRAVERSE COUNTY, MICHIGAN

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INTRODUCTION

The following inventory of the fauna and flora of the Marckwald property near Neahtawanta Point was undertaken at the request of the owner and her attorney James M. Olson, and was begun in late August, 1989. The purpose of the inventory was for use in the preparation of a proposal to establish a conservation easement on the property. The field work for this report was conducted on two occasions; the first observation was made on Thursday, August 24, 1989, and the second visit was made on September 12, 1989. The author was accompanied by the owner and several of her family members on the first visit. On each of these occasions plants were identified on sight, and several specimens were collected for laboratory identification by microscope. It should be noted that at the time this assessment was commissioned in late summer, many flowering plants had finished blooming. Consequently, some identifications of such species were based on vegetative parts, seeds, and in some cases on the author's prior knowledge of this property in the spring. The assessment of wildlife present on the property is based upon the actual evidence seen on the site, and the author's considerable prior experience and knowledge of this area of the Old Mission Peninsula.

The property under consideration can be divided into three habitat zones. The first of these consists of the beach and shoreline which meet West Grand Traverse Bay. The second zone occupies the first terrace inland from the beach, and was once the shoreline of the ancient glacial Lake Nipissing. The third zone is comprised of

the second terrace away from the beach, and will be referred to as the mature Maple-Beech forest.

Identification of the property's resource's and preparation of this report was completed following names set forth in several field guides. The names of trees follow *Michigan Trees* by Barnes and Wagner (1989). Names of flowering plants follow *Michigan Wildflowers* by Smith (1966). Names of ferns follow *Ferns of Michigan* by Billington (1952). Names of shrubs follow *Shrubs of Michigan*, also by Billington (1949).

FINDINGS

THE BEACH AND SHORELINE

WILDLIFE: Evidence and sightings indicate the presence of several species in this zone. The shoreline is important for mammals which come to the water to drink, such as Racoons (*Procyon lotor*), of which numerous tracks crossing the beach to the water's edge were evident. The shore is used by many shorebirds including Kildeer and Sandpiper. The near-shore water is also frequented by Common Loons, Common Mergansers, and various diving ducks.

FLOWERING PLANTS:

Beach Pea *Lathyrus japonicus*

Starry Solomon's Seal *Smilacina stellata*

Poison Ivy *Rhus radicans*

Sea Rocket *Cakile edentula*
Bearberry *Arctostaphylos uva-ursi*
Wormwood *Artemisia canadensis*
White Campion *Lychnis alba*
Bladder Campion *Silene cucubalus*
Jewel Weed *Impatiens capensis*
Smart Weed *Polygarum lapathifolium*
Silver Weed *Potentilla anserina*
Salsify *Tragopogon porrifolius*
Forget-me-not *Myosotis scirpoides*
Evening Primrose *Oenothera biennis*
Smooth Aster *Aster laevis*
Canada Blue Grass *Poa canadensis*
Wild Rye *Elymus canadensis*
Dune Grass *Amophila breviligulata*

SHRUBS:

Sand Cherry *Prunus pumila*
Red Osier Dogwood *Cornus stolonifera*
Poison Ivy *Rhus radicans*
Creeping Juniper *Juniperus horizontalis*
Upright Juniper *Juniperus communis*
Prairie Rose *Rosa blanda*
Sand Bar Willow *Salix nigra*
Wild Grape *Vitis riparia*

TREES:

Red Oak *Quercus rubra*
White Pine *Pinus strobus*
Balsam Fir *Aibes balsamea*
White Cedar *Thuja occidentalis*
Red Maple *Acer rubrum*
White Birch *Betula papyrifera*
Basswood *Tilia americana*

THE WOODS OF THE FIRST TERRACE (NIPPISSING SHORE)

WILDLIFE: This zone had evidence of several species of mammals and birds.

Small mammals such as Chipmunks (*Tamias striatus*) were observed in large numbers, and the habitat indicates the likely presence of shrews (*Blarina brevicauda*) and Deer Mice (*Peromyscus maniculatus*). The habitat of the first terrace is also well-suited to White-Tailed Deer (*Odocoileus virginianus*), especially since the several large clumps of Canada Yew (*Taxus canadensis*) constitute a prime source of food during the winter. However, the summer homes on each side of this parcel and the less attractive stand of hardwoods which the animals would have to traverse to reach the first terrace probably deter the few deer on the Old Mission Peninsula from entering this zone, thereby leaving the Canada Yew untouched by deer browsing.

This zone is particularly important with respect to bird life. Probably the greatest significance of this wooded zone lies in its function as a resting-place for migratory songbirds in the spring and

fall. Several species of migrating warblers were seen here on the second visit. Beyond its potential for sheltering migratory songbirds, this zone is frequented by Pileated Woodpeckers, as can be seen by the characteristic square holes left on a few of the pines and hemlocks standing on the border of the terrace and the shoreline.

FLOWERING PLANTS AND FERNS:

Trillium *Trillium grandiflorum*

Star Flower *Trientalis borealis*

Canada Mayflower *Mianthemum canadensis*

Pipsisewa *Chimaphilla umbellata*

Partridge Berry *Mitchella repens*

Wild Sasparilla *Aralia nudicaulis*

Bracken Fern *Pteridium gletisch*

SHRUBS:

Canada Yew *Taxus canadensis*

Maple-leaf Viburnum *Viburnum aceritolium*

Upright Juniper *Juniperas communis*

Choke Cherry *Prunus virginiana*

Blueberry *Vaccinium angustifolium*

Sessile Honeysuckle *Lonicera dioica*

TREES:

Red Oak *Quercus rubra*

Beech *Fagus grandifolia*

Hemlock *Tsuga candensis*

White Cedar *Thuja occidentalis*

Yellow Birch *Betula lutea*

MATURE BEECH-MAPLE WOODS OF THE SECOND TERRACE

Wildlife: This area typically has few of the wildlife species sought by hunters, but nonetheless is rich in certain bird species such as chickadees, nuthatchers, woodpeckers, thrushes, flycatchers, and warblers, such as the Ovenbird and Black-throated Green. As noted previously, it is unlikely that this property attracts many deer, however, the mature forest is likely to hold many of the mammals such as chipmunks, shrews, and mice which were present in the first terrace. In the second terrace, such small-mammals would be found feeding on tree seeds and invertebrates. Evidence of a Porcupine (*Erethizon dorsatum*) den-tree was also noted.

FLOWERING PLANTS:

Sweet Cicely *Osmorhiza claytoni*

Solomon's Seal *Polygonatum biflorum*

False Solomon's Seal *Smilacina racemosa*

Spring Beauty *Claytonia virginica*

Toothwort *Dentaria diphylla*

Squirrel Corn *Dicentra canadensis*

Trout Lily *Erythronium americana*

Hepatica *Hepatica acutiloba*

SHRUBS:

Red Elderberry *Sambucus racemosa*
Gooseberry *Ribes cynosbati*
Maple-Leaf Viburnum *Viburnum acerifolium*
Bush Honeysuckle *Diervilla lonicera*

TREES:

Beech *Fagus grandifolia*
Sugar Maple *Acer saccharum*
Basswood *Tilia americana*
Hemlock *Tsuga canadensis*
Black Cherry *Prunus serotina*
White Ash *Fraxinus americana*
White Birch *Betula papyrifera*
Red Maple *Acer rubra*
Red Oak *Quercus rubrum*
Ironwood *Ostrya virginiana*

CONCLUSION

The Marckwald property on Neahtawanta Point represents a significant remnant of the pristine beach, beach-ridge, and mature Beech-Maple forest which was once more common in this region. This inventory of plant and animal species indicates a diverse collection of plants and animals that would benefit from maintenance of the property in its present condition. While no

endangered or threatened species were found in this inventory, the property has great potential to affect sensitive bird species because of its function as a resting place for migratory birds. In addition, the presence of Common Loons and Pileated Woodpeckers on or about the property suggests that the area has the potential to affect these two increasingly rare birds. Finally, it is important to consider that critical early-flowering plants as well as nesting birds could be present on the property yet not noted in this assesment because the field work was completed in late summer. Further observations in the spring are warranted, and the author looks forward to oberservational studies with college classes at the invitation of the owner.