

AN ECOLOGICAL ASSESSMENT OF THE SHAFFER PROPERTY IN PENINSULA
TOWNSHIP, GRAND TRAVERSE COUNTY, MICHIGAN: DOCUMENTATION FOR A
CONSERVATION EASEMENT

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INTRODUCTION

The following inventory of the physical and ecological features of the portion of the Shaffer property on Ne-ah-ta-wanta point, Old Mission Peninsula, Grand Traverse County, Michigan was undertaken on 24 November and 2 December 1990. The inventory and documentation was undertaken for the Old Mission Conservancy at the request of Ted Bagley, and with the help and permission of the owner. The purpose of the inventory is for use in the preparation of a Conservation Easement documentation report. This property is contiguous with existing Conservation Easements granted to the Clarissa Marckwald family, and the Ne-ah-ta-wanta Resort Association. Field work for this report includes some of the herbaceous plants observed on the two contiguous easements was conducted on two occasions during August, 1990, and two occasions during August and September 1989. On each of these occasions plants were identified by sight, and specimens of difficult species were taken for more detailed identification. It should be noted that at the time the first two assessments were 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 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 observed on the site, and the author's considerable prior experience and knowledge of this area of the Old Mission Peninsula. The author has had previous experience at this site in the documentation of the Marckwald Property and the Ne-ah-ta-wanta Resort Association Conservation Easements, which are contiguous to portions of this tract.

The undeveloped portions of the property can be divided into three habitat zones. The first of these consists of the beach and shoreline which meet West Grand Traverse Bay, an area which is not included in the easement. It is partially bare, and partially vegetated with a plant association typical of stabilized dunes. The second zone occupies the first terrace inland from the beach and was once the shoreline of the ancient glacial Lake Nipissing most of this zone is also excluded from the proposed Shaffer easement. It is vegetated by a transitional grouping of both forest

tree species, stunted by the wind, and remnant dune and beach vegetation which persists on the sandy lacustrian deposits. The third zone is comprised of the second terrace away from the beach, and will be referred to as the mature Maple-Beech forest, which is primarily a north facing valley terrace, and has a great many more Hemlocks than the more southerly and westerly facing Marckwald and Ne-ah-ta-wanta Resort Association properties. The most easterly portion of the Shaffer easement is the highest, steepest bluff in the vicinity which forms the easterly wall of the valley.

Identification of the property's vegetation and preparation of this report was completed with the aid of the several standard field guides, and the nomenclature followed adheres to these sources. The names of trees follow *Michigan Trees* by Barnes and Wagner (1989). Names of flowering plants are from *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 (This is included from the Marckwald and Ne-ah-ta-wanta Resort Association reports to give a feeling for the adjacent easements even though it is not included in the Shaffer easement).

WILDLIFE: The proximity of this point of land to Marion Island, and the low dune and shoreland makes this area of utmost importance for migrating waterfowl, shorebirds, and passerines. Nearly any undeveloped point of beach in this region is significant as a migration focal point. Birds common in this area in fall and spring are loons, two species of mergansers, most species of diving ducks found moving through the area, all of the sandpipers collectively known as peeps, and in the trees and shrubs, migrating warblers, other songbirds. These properties along Lake Michigan are an important part or link in the chain of staging areas which add up to the spectacular passages of birds in the area. Various mammals from deer to raccoons may utilize the shore for drinking water in the night.

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 candata*
White Campion, *Lychnis alba*
Bladder Campion, *Silene cucubalis*
Jewel Weed, *Impatiens capensis*
Salsify, *Tragopogon porrifolius*
Smooth Aster, *Aster laevis*
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 Oak, *Quercus alba*
White Pine, *Pinus strobus*
Red Pine, *Pinus resinosa*
Balsam Fir, *Abies balsamea*
White Cedar, *Thuja occidentalis*
Red Maple, *Acer rubrum*
White Birch, *Betula papyrifera*
Cottonwood, *Populus deltoides*
Basswood, *Tilia americana*

WOODS OF THE FIRST TERRACE (NIPPISSING SHORE) Also included as background information, although there may be some small parts of this which are part of the easement. The Photos of the house and parking area occupy this zone, and this documentation could presumably be important for monitoring future development abutting the easement zone.

WILDLIFE: Evidence of several species of mammals and birds were observed in this zone. Small mammals like chipmunks, gray squirrels, and the nocturnal species such as the Short-tailed Shrew and Deer Mouse are found here. The presence of clumps of Canada Yew (*Taxus canadensis*) constitute a source of browse for deer, but the buffer of tall woods, and the tendency for deer to be uncommon on the Old Mission Peninsula makes this zone more unusual because of its absence of deer rather than for their presence. Migrating warblers undoubtedly use these trees, and there was evidence of Pileated Woodpeckers due to their characteristic square holes in a few of the trees.

FLOWERING PLANTS AND FERNS:

Trillium, *Trillium grandiflorum*
Star Flower, *Trientalis borealis*
Canada Mayflower, *Mianthemum canadensis*
Pipsisewa, *Chimaphilla umbellata*
Partridge Berry, *Mitchella repens*
Wild Sarsparilla, *Aralia nudicaulis*
Bracken Fern, *Pteridium gletisch*

SHRUBS:

Canada Yew, *Taxus canadensis*
Maple-leaf Viburnum, *Viburnum acerifolium*
Upright Juniper, *Juniperus communis*
Choke Cherry, *Prunus virginiana*
Blueberry, *Vaccinium angustifolium*
Sessile Honeysuckle, *Lonicera dioica*
Bush honeysuckle, *Diervilla lonicera*

TREES:

Red Oak, *Quercus rubra*

Beech, *Fagus grandifolia*
Hemlock, *Tsuga canadensis*
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, nuthatches, woodpeckers, thrushes, and flycatchers, such as the Wood Pewee. Certain warblers, such as the Black-throated Green Warbler, and Ovenbird nest in this type of woods. As noted previously, the lack of food and cover make this area unattractive to deer. The small mammals noted in the last zone can also be found here feeding on tree seeds and invertebrates. We found a porcupine den tree in this zone.

FLOWERING PLANTS:

Sweet Cicely, *Osmorhiza claytoni*
Solomon's Seal, *Polygonatum biflorum*
False Solomon's Seal, *Smilacina racemosa*
Spring Beauty, *Claytonia virginica*
Tooth Wort, *Dentaria diphylla*
Squirrel Corn, *Dicentra canadensis*
Trout Lily, *Erythronium americana*
Hepatica, both *Hepatica rotundifolia* and *acutiloba*
Smooth Yellow Violet, *Viola pennsylvanica*
Leafy Northern Green Rein Orchid, *Habenaria hyperborea*
Long-bracted Green Rein Orchid, *Habenaria viridis*
Jewel weed, *Impatiens capensis*
Pokeweed, *Phytolacca americana*
Spinulose wood fern, *Dryopteris spinulosa*
Lopseed, *Phytolacca leptostachya*
Sweet scented bed straw, *Galium triflorum*
Wild licorice, *Galium lanceolatum*
Northern Bedstraw, *Galium boreale*

SHRUBS:

Red Elderberry, *Sambucus racemosa*
Gooseberry, *Ribes cynosbatti*
Maple-leaf Viburnum, *Viburnum acerifolium*
Bush Honeysuckle, *Diervilla lonicera*

TREES:

Beech, *Fagus grandifolia* (Several measuring over 30 inches DBH)
Sugar Maple, *Acer saccharum* (A few over 30 inches DBH)
Basswood, *Tilia americana*
Hemlock, *Tsuga canadensis*
Black Cherry, *Prunus serotina*
White Ash, *Fraxinus americana*
Red Maple, *Acer rubra*
Red Oak, *Quercus rubrum*
White Oak, *Quercus alba*
Ironwood, *Ostrya virginiana*

DISCUSSION

The Shaffer property, as described in this report and the accompanying map, represents a significant remnant of nearly pristine beach, beach ridge, and mature Beech-Maple forest which was once more common in this region (although the beach and ridge are excluded from the proposed easement). It also includes the highest bluff in the area and a north-facing valley with slightly more hydric conditions than the adjacent and more southerly easements. This portion of the woods is characterized by a greater density of Hemlocks and also the presence Ground Pine, *Lycopodium obscurum*. On the edges of the top-most parts of the bluff are some Large-toothed Aspen, *Populus grandidentata*, and Sumac, *Rhus typhina*. The value of this easement to the Old Mission Conservancy is to keep this whole system in a similar condition to the present vegetation and landforms. The responsibility for this would fall to the monitoring committee reporting to the Board of Directors. The monitoring of this parcel could pose a lesser problem than that of the adjoining Marckwald and Ne-ah-ta-wanta Resort Association property for several reasons. This is because the single access road and the

connecting 2-track into the Marckwald property, which are presently restricted, have fewer residences and less human intrusion. Should the lake shore lots on the Shaffer property (not in the easement) become developed for residences, then the ease of monitoring would probably change. Associated with this is the present newly constructed ORV (off road vehicle) trail which leads from one of the private residences through the pristine woods in the Ne-ah-ta-wanta Resort Association property causing erosion, death of the vegetation, and fractionation of that parcel. This must be stopped. Hopefully, this will be done prior to the Ne-ah-ta-wanta Resort Association land transfer, and thereby save the monitoring committee the trouble of legal actions against the offender. There are some indications that the ORV has used the road through the Marckwald Property connecting to the trail on the Shaffer Property to gain access to the area above the bluff and "complete the circle" back to the Ne-ah-ta-wanta Resort Association land.

Finally, it should be emphasized that the visits upon which this inventory is made are of limited duration, and during a season of the year which may mask additional natural features. Visits should be made in spring and early summer for further evaluation. However, I wholeheartedly endorse the acceptance of this parcel for a Conservation Easement designation with the Old Mission Conservancy as a significant addition to the existing easements, and a natural heritage which is irreplaceable to the Old Mission Peninsula.

APPENDICES: 24 color photographic prints (annotated for location), plat map, and SCS aerial photo copy.