

GRANDE MERE A Very Special Place

GRAND MERE ASSOCIATION
Stevensville, Michigan



The net proceeds from the sale of this booklet will be used to maintain the Grande Mere Nature Study Preserves and to operate public education programs about Grande Mere.

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Introduction by H. Lewis Batts, Jr.

The Grande Mere Area, consisting of approximately 1,000 acres of natural plant and animal communities along the shore of Lake Michigan (Berrien County, Michigan), is indeed a very special place.

These communities present themselves in various forms — in streams, lakes, bogs, wooded uplands, and on open beaches and dunes — and all result from the many interactions of geological forces and the living forces of the plants and animals that have lived there.

The Grande Mere Area is rugged in the sense of withstanding the constant violences of nature such as wind, waves, ice, heat, and cold. However, the Grande Mere Area is also fragile in the sense of the delicate balance of a living entity. The natural forces follow a pattern tending toward a dynamic stability of the area; man-induced forces tend to disrupt the pattern, producing an instability which likely would destroy the living entity, the Grande Mere Area, itself.

Through the efforts of the Grande Mere Association, a group of people truly dedicated to the single task of preventing the destruction of this special place, people hopefully will be assured of the highest use of the Area, namely, as a natural education-recreation area.

This booklet is meant to introduce you to the Grande Mere Area by describing it and relating people to it so that its value and its need for protection will become more apparent and important. You are especially invited to visit and enjoy the Nature Study Preserve, a 22-acre portion of the Area, purchased by the Kalamazoo Nature Center with funds donated primarily by members of the Grande Mere Association. Guided tours of the nature trails are conducted occasionally by members of the Association and by staff of the Nature Center.

Please do what you can to help keep this a very special place for people.

Acknowlegments

Significant amounts of time, effort, talent, and money were needed to produce this booklet. These were supplied generously by the Grande Mere Association as a group and by individual members.

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Dedication

This book has been written to acquaint our readers with the various and sundry aspects of the Grande Mere Area. To some, Grande Mere is a nebulous bit of geography on the map, an area of unanswered questions. To some who know it best, it presents an engrossing ever present array of natural phenomena which impels them to frequent the remote bogs or woods, or climb the highest dune in search of a rare plant or stalk an elusive bird. Others are content to walk slowly through trails to encounter whatever may be present at that moment.

This book is meant to provide reference material for the serious student of the many earth sciences, while at the same time, others may find the chapters devoted to lighter subjects much to their enjoyment. Our primary purpose of putting it all in one small volume is to bring the Grande Mere Area just a little closer to your appreciation of one of Michigan's most valued natural resources.

This book is dedicated to the perpetuity of the Grande Mere Area as a preserved natural resource and to the future generations who will appreciate it.

The Authors

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Geologic History

by Max E. Medley

The geologic formation of the Grande Mere embayment took place during and since the retreat of the Wisconsin ice sheet — the last glacier to cover this part of the country. The Lake Michigan lobe of this ice mass gouged out the basin that is now known by that name.

The old Grande Mere embayment lies between the present shore of Lake Michigan and the covert ridge, which is a part of the lake-border morainic system. (See Map, p. 103.) The embayment and the dune complex associated with it is about 16 miles long and roughly ½ mile wide, starting at the north end near Glenlord Beach and extending southward to the vicinity of Lakeside in Berrien County, Michigan.

As the ice melted and retreated northward, the basin gouged by the ice filled with its meltwater and formed a complex lake which continually became larger as the glacier receded. The water eventually found an outlet near the present city of Chicago and emptied into the Mississippi River system until another outlet was opened farther north by the melting ice and the water drained through the eastern great lakes. As the different outlets were opened and deepened, the lake went through progressively lower levels until it was lower than it is now but eventually filled in to its present level. Each lake level left its own shore formations. Beaches, dunes, or formations of some type are found for five different lake stages in the Grande Mere Area. The oldest and the highest of these levels was the Glenwood stage of Lake Chicago, which left its dunes and beaches about 55 or 60 feet above the present lake level. This was followed by the Calumet stage, about 35 feet above the present level.

As the Straits of Mackinac were opened and the lake started draining eastward, the lake level dropped to 20 feet above the present level and the stage known as Lake Algonquin was formed. Lake Nipissing followed Lake Algonquin and was about 15 feet above the present level. The Algoma Beach is the last stage and was the result of a post-Nipissing drop of the water level to about 10 feet above the present level of Lake Michigan.

Evidence of the Tolston stage, which was of short duration between the Algonquin and Nipissing levels, is not found in the area of the Grande Mere embayment.

During late Algonquin times, a compound recurved spit of sand formed northward across the entrance of the bay and became the base for the large Nipissing dunes, which later formed on it. At the same time a shorter, smaller spit was forming southward across the entrance to the bay. In post-Algoma times, these two spits eventually joined and cut off the embayment from the rest of the lake.

As the impounded waters gradually filled in, the embayment became a series of five small lakes, of which three remain at the present time. The others, the two southernmost lakes, have filled in and have become wooded swamps.

Note: See map on last page (foldout).



Habitats and Communities

by Max E. Medley

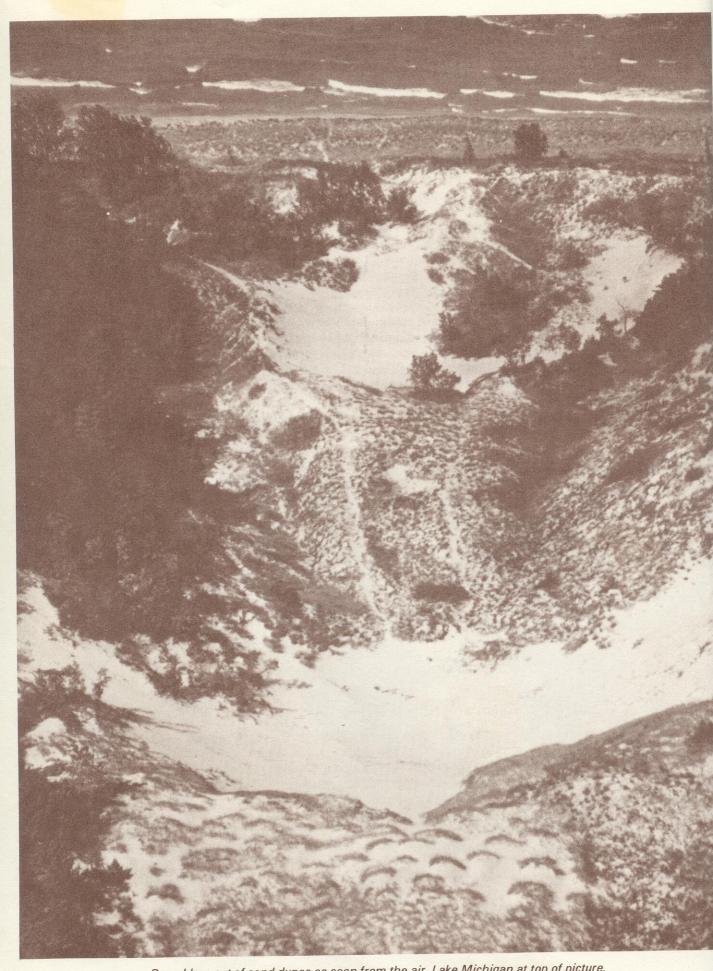
The habitats and communities of the Grande Mere Area are varied and in many ways unusual. Lake Michigan warms slowly in the spring, keeping the region cooler longer, thus preventing buds from opening too soon during early spring warm spells and from freezing when the temperature drops again.

In the fall the waters of Lake Michigan retain much of their summer warmth for some time because water is slow both to absorb heat and to give it up. Because of these buffering effects in the spring and fall, a narrow strip of land along the shore of southeastern Lake Michigan is capable of growing plants that are not winter-hardy elsewhere in the area. A number of species from the southeastern part of the continent have been found growing in or near this buffered area and some of them occur nowhere else within hundreds of miles. One of these plants, the cranefly orchid, found a few miles south of the Grande Mere Area, has been reported but not yet authenticated for Grande Mere.

The natural communities of the Grande Mere Area are especially interesting because there is a mixing of northern and southern elements, both florally and faunally. These are described briefly below in eight categories ranging from xeric sandy habitats of the dunes to aquatic habitats in the land-locked lakes.

Beach and Non-forested Sand.

Living communities start at the edge of Lake Michigan, where little but simple forms of algae grow due to wave action in summer and ice abrasion in winter, and extend in places up into the dunes. As the high-water line is passed, rooted plants appear, starting with sea rocket, bugseed, and seaside spurge. Slightly farther inland other plants appear: beach wormwood, marram grass, sand reed, little bluestem grass, Canada wild rye, beach pea, dune foldenrod, sand cress, hairy puccoon, and bastard toadflax. These plants occur not only on the upper beach but on the foredune and other places of open, non-forested sand throughout the dunes.



Deep blow-out of sand dunes as seen from the air. Lake Michigan at top of picture.

Other plants occurring typically on the foredune and also at times in other open dune areas are the dune willow, blue-leaved willow, sand cherry, round-leaved dogwood, wafer ash, and cottonwood.

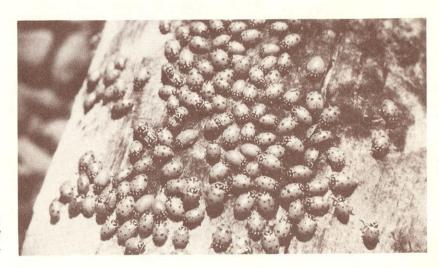
Some of the other typical plants of the open sandy areas and their edges are bittersweet, poison ivy, starry false solomon's seal, redosier dogwood, gray dogwood, common juniper, and lombardy poplar, which unfortunately has become naturalized in places in the dunes.

Gulls, terns, and sandpipers are some of the more common birds of the beach portion of this habitat. Other birds observed along the beach occasionally are herons, Common Grackles, six species of swallows, and other migrants including birds of prey and waterfowl.

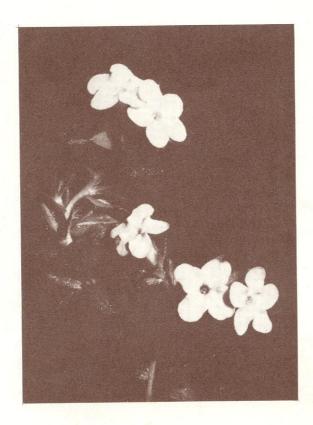
One of the most interesting birds of this habitat is the Prairie Warbler, a bird with the bulk of its breeding range farther south. It builds its nests in shrubs in the non-forested sandy areas, especially along the foredune and just in the lee of it. It is the most characteristic breeding bird of the community and at least formerly was quite common and easily observed there.

Young box turtles and a pale form of the American toad often frequent the open sandy areas — the toads along the beach and foredune and the box turtles farther up in the dunes.

Some of the typical invertebrates are sand spider, burrowing spider, white tiger beetle, maritime grasshopper, long-horned grasshopper, and digger wasps.



Ladybird Beetles sunning on an old log in October



Hairy Puccoon growing on the dry dunes.

In the fall there appears to be a migration of some insects along the shore — occasionally large numbers of monarch butterflies can be seen and ladybird beetles appear by the hundreds of thousands along the beach strand. Many other species of insects can be found in lesser numbers. Crayfish are found in the shallow water of Lake Michigan just off the beach.

Wooded Dunes.

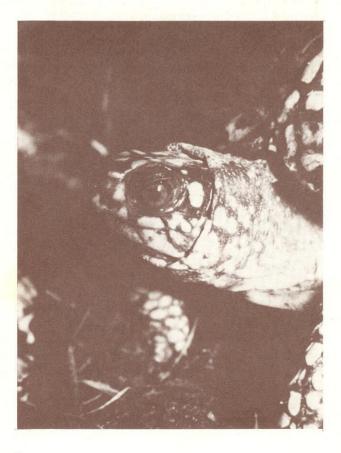
Although black oak dominates this habitat, most of the tree species typical of this region are found in the forest on these dunes. One of the more interesting trees on the dunes is Hill's oak. However, some botanists feel that populations of this tree in our area are not distinct from the scarlet oak. Hill's oak often occurs on the tops of dunes and dune ridges.

Two species of serviceberry, the June berry, and Allegheny shadblow, are very attractive throughout the high dunes, especially in early spring when they put out showy white blossoms; but also in winter when their silvery striped bark and clump-like habit are very striking.

Some of the ferns and flowering forbs of this habitat are marginal woodfern, Christmas fern, grape fern, wild sarsaparilla, white baneberry, columbine, bigleaf aster, Canada mayflower, and prince's pine. Trailing arbutus and trailing groundpine (a clubmoss) often appear on north-facing slopes.

Some of the characteristic breeding birds of this habitat are Yellow-billed Cuckoo, Black-billed Cuckoo, Great Horned Owl, Screech Owl, Whip-poor-will, Hairy Woodpecker, Downy Woodpecker, Red-bellied Woodpecker, Yellow-shafted Flicker, Great Crested Flycatcher, Eastern Wood Pewee, Blue Jay, Black-capped Chickadee, White-breasted Nuthatch, Tufted Titmouse, Brown Thrasher, Red-eyed Vireo, and Scarlet Tanager.

Since 1970, Summer Tanagers have been seen in the wooded dunes during May, June, and July every year and Worm-eating Warblers have been seen every year but two since 1964. Since 1970, one or more Worm-eating Warblers have been observed showing



A portrait of a Box Turtle.

territoriality at the same place in the Grande Mere Area and have stayed well into the summer. Both of these species are typically southern birds but may be breeding in Grande Mere now or in the near future.

Black-throated Green Warblers, a northern species, have been observed in the summer months of some years in the wooded dune hollows.

Mammals of this habitat include whitetail deer, raccoon, red fox, skunk, opossum, weasels, fox squirrel, red squirrel, southern flying squirrel, white-footed mice, meadow jumping mice, and shrews.

The most conspicuous reptiles and amphibians in the wooded dunes are box turtles; and in the spring Blanding's turtles and painted turtles can be found laying eggs in the dunes. American and Fowler's toads are easily observed in the wooded dunes along with garter snakes, black rat snakes, and eastern hognosed snakes. Spring peepers appear after they finish their courtship and egg laying in the nearby marshes and ponds.

A few of the typical invertebrates are digger wasps, antlions, flatbugs, six species of grasshoppers, wireworms, and at least one species of snail. If one visits the area on a hot summer day the mosquitoes and deerflies will never be forgotten.

Wooded Lake Bed.

Just behind the dunes lies an area of old lake bed that at one time was a bay before it was cut off by the sand spits in Algonquin times. Part of this area is still occupied by the three remaining small lakes. The land not covered with lake water is low and some of it is swampy, characterized by red maple, white ash, and speckled alder. In the drier areas there is much flowering dogwood, sassafras, and some black gum and red oak. Scattered here and there are a few hemlock, white cedar, and tamarack.

The herbaceous flora of this complex group of communities is not distinctive but is made up of many of the wild flowers and ferns indigenous to non-specialized communities of this part of the country. Only three of these will be mentioned here. The showy orchis is found scattered in the drier areas; and wherever there is sufficient moisture and light the royal fern grows profusely. There is a small colony of bead lily in one spot.

Breeding birds include Veery, Wood Thrush, Yellowthroat, American Redstart, Rose-breasted Grosbeak, Indigo Bunting, Rufous-sided Towhee, and Song Sparrow. White-eyed Vireos, Black-and-white Warblers, Chestnut-sided Warblers, and Magnolia Warblers have been observed here in summer without further evidence of nesting.

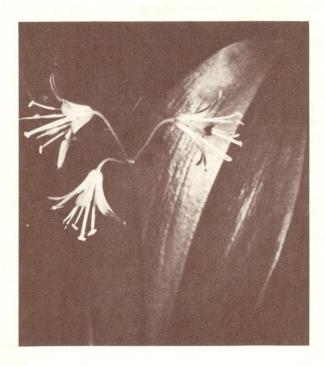
Mammals found in this habitat include those mentioned above in the wooded dunes plus the eastern mole, starnose mole, mink, eastern cottontail, and possibly some species of mice and shrews not found in the dunes.

Reptiles and amphibians include blue racer, black rat snake, garter snake, milk snake, American and Fowler's toads, spring peepers, western chorus frog, tiger salamander, spotted salamander, and red-backed salamander.

Invertebrates are extremely numerous and an attempt to name even the common ones would be too lengthy. It will suffice to say that most of the major phyla, orders, and families can be found represented in the various communities of this habitat.

Hemlock Swamp.

This habitat, although also occupying an ancient lake bed, is more specialized than the wooded lake bed. There are two areas of this habitat found in Grande Mere. One is in what was once the fourth lake



Bluebead likes it's feet wet.

of the five-lake complex that developed in the later stages of the filling of the Grande Mere embayment. The other hemlock area lies between I-94 and the covert moraine forming the east boundary of the embayment.

These two areas are dominated by hemlock and contain fairly large numbers of white pine, tamarack, and white cedar. The soil remains cool even in mid-summer and supports a flora containing many species that one might find in the Upper Peninsula and the northern portion of the Lower Peninsula. Growing here are star-flowers, bunchberry, goldthread, bead lily, purple avens, moccasin flower, yellow ladyslipper, clubspur orchid, Loesel's twayblade, twin flower, and shining clubmoss.

Many of the plants that one expects to find in a moist forest community anywhere in this region are here also: Jack-in-the-pulpit, swamp saxifrage, violets of several species, golden groundsel, tufted loosestrife, Indian cucumber root, large-flowering trillium, marsh marigold, mitrewort, and a great many others. Scattered here and there where they can find enough sun are a few depauperate specimens of pitcher plant.

Two of the most characteristic bird species of the hemlock swamp and the area surrounding it are the Canada and Hooded Warblers. Several pairs of Canada Warblers breed here every year and can be observed easily from Wishart Road, which runs along one side of the fourth lake hemlock swamp. This is a northern species and has not been found nesting anywhere else in this part of the state.

The Hooded Warbler, a southern species, apparently breeds irregularly in the same portion of the Grande Mere Area as the Canada Warbler; and both are examples of species breeding at the extremes of their geographical distribution. The Hooded Warblers, however, can be found nesting in several other swampy areas within a few miles.

Mammals most likely to be seen in the hemlock swamp are whitetail deer, red squirrel, and southern flying squirrel.

Prairie-like Areas.

There are two prairie-like areas in Grande Mere. The first one is a calcareous panne just behind the low dunes in the north end of the embayment. It was largely destroyed during construction of an apartment complex but a portion of it still exists. Growing there are fringed gentians, grass of parnassus, nodding lady's tresses, tall coreopsis, Riddell's goldenrod, rough goldenrod, big bluestem grass,



Nodding Lady's Tresses.

little bluestem grass, sand reed, several other species of grasses, and a number of sedges.

This area is penetrated by a dirt road and the association just described is on the north side of it. On the other side there is a pond filled with rushes and a brushy area.

The eastern massasauga, a rattlesnake, was formerly a member of this community.

The second prairie-like area is just south of Notre Dame Road between the middle lake and Thornton Avenue and is surrounded by scrubby second- or third-growth timber. It consists of a weedy oldfield situation but contains several prairie elements such as the nodding lady's-tresses, tall coreopsis, big bluestem grass, little bluestem grass, several other grasses, sedges, and rushes. Rose pink, a member of the gentian family and not considered a prairie species, is unusual enough in this area to merit mention.

Several sparrows, Yellow Warblers, and the Yellowthroat nest in this area.

Most of the mammals of the area probably pass through this habitat

but among the ones that actually live there are mice, shrews, and moles. These are preyed upon by the larger carnivorous mammals, snakes, and birds of prey.



The red Fox is still seen in Grande Mere.

Cranberry Bog.

The cranberry bog surrounded the south lake and was developed as a commercial enterprise. Formerly it had areas of sphagnum moss with cranberries, pitcher plants, and marsh St. John's wort.

Since its commercial abandonment the bog has reverted almost entirely to its original lake form due to rising water tables, and large portions have been invaded by swamp rose and other marsh vegetation.

Ducks, geese, coots, and occasionally Sandhill Cranes use this lake and marshy bog in the spring and fall and Yellow Warblers, Yellowthroats, Song Sparrows, and other small birds nest in the shrubby vegetation.

Aquatic Areas.

There are three remaining lakes in the Grande Mere Area, including the one in the middle of the cranberry bog. They are connected to each other and to Lake Michigan by the Thornton Valley Drain.

The emergent vegetation of these aquatic habitats includes cattails,



Grande Mere supports about 50 deer in the wilderness area, according to the DNR.



A friendly raccoon.

arrowhead, arrow arum, pickerelweed, yellow pond lily, and various rushes.

Some of the floating-leaved plants are white water lily, watershield, some of the pond-weeds, and small duck-weed.

The submerged vegetation is composed mostly of hornwort, pondweeds of several species, slender naiad, water milfoil, elodea, and an abundance of algae. Pied-billed Grebes, Mallards, coots, rails, Least Bitterns, and Black Terns use the lakes (especially Middle Lake) and their margins for breeding; and ducks, geese, swans, herons, eagles, and Ospreys use the lakes for feeding during migration.

Mink and muskrats are the only mammals that use the aquatic habitats regularly, but deer and raccoon feed along the shores of the lakes.

Several species of turtles including the painted turtle, Blanding's turtle, and snapping turtle are in the lakes. Northern watersnakes can be found around their edges along with green frogs, bullfrogs, leopard frogs, pickerel frogs, spring peepers, and cricket frogs.

A few of the fish in the lakes are northern pike, grass pickerel, largemouth bass, bluegill, rockbass, sunfish, and mud minnows.

Some of the aquatic invertebrates are water boatmen, backswimmers, giant waterbugs, whirligig beetles, various spiders, crayfish, and a great many others.

Interstate-94 Right-of-way.

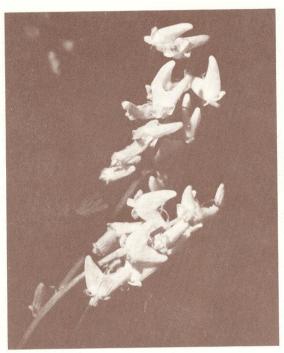
This is a relatively recent habitat in the Grande Mere Area and probably has not yet reached its full development. There are shrubs of several species, including willows, along the fences. In the wet spots rushes and cattails predominate and grasses cover large portions in other places.

Some of the more showy "weed" species form large colorful patches when in flower: Cardinal-flower, great blue lobelia, cone flowers, joe-pye weed, boneset, goldenrods, and rose pink. Although rose pink was first found in 1971 in one of the prairie-like areas, it was found along the I-94 right-of-way about four years earlier; and whether it colonized the highway right-of-way from there or was brought in with some of the soil used for fill for the highway and then migrated to prairie areas from there presents an interesting problem in dispersal. This latter possibility appears to be the more likely but more work needs to be done.

Meadowlarks and other field and meadow species nest in these grassy areas along with shrews, mice, and meadow voles.

The plant and animal associations mentioned for the eight habitat groups obviously are not complete for each community. See the lists of species for a more complete tabulation of the vascular plants, amphibians, reptiles, birds, and mammals in the Grande Mere Area.

SPRING COMES TO GRANDE MERE



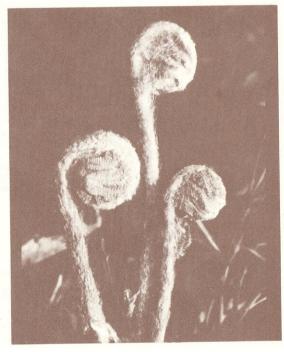
Dutchman's Breeches



Bloodroot



Adder's Tongue



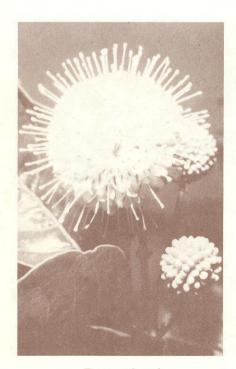
Fiddleheads of Ferns



Field Trip Volunteers



Pussy Willow



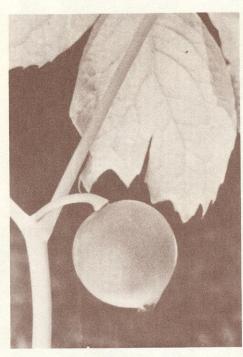
Buttonbush



Bottlebrush Grass



Skunk Cabbage



May Apple



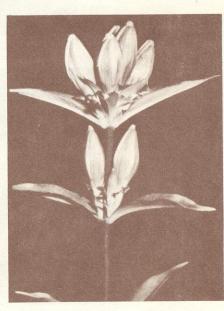
Yellow Lady's Slipper



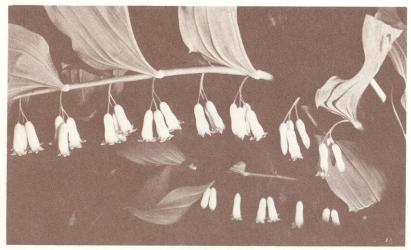
Dogwood



Spurge



Bottle Gentian



Solomon's Seal



Wild Roses



Late Fall Visitors

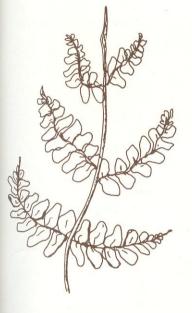


Wood Betony



Blue Flag

Vascular Plants



These vascular plants are known to have been recorded from the Grande Mere Area between 1959 and 1973. Undoubtedly many more species of plants live there and, hopefully, will be identified and included in subsequent lists.

The scientific names are, except for the ferns, those in "Gray's Manual of Botany" (Merritt Lyndon Fernald, 1950, American Book Co.). Fern names are from "The Fern Guide" (Edgar T. Wherry, 1961, Doubleday & Co., Inc.). Common names are from various sources. Those indicated by an * are probably escaped or even introduced forms. Those indicated by a † should not be picked.

Equisetum arvense Equisetum hyemale Lycopodium lucidulum Lycopodium clavatum Lycopodium flabelliforme Selaginella apoda Botrychium multifidum Botrychium virginianum Osmunda regalis Osmunda cinnamomea Onoclea sensibilis Dryopteris spinulosa Dryopteris intermedia Dryopteris marginalis Phegopteris hexagonoptera Polystichum acrostichoides Athyrium Filix-femina Athyrium thelypterioides Adiantum pedatum Pteridium aquilinum Taxus canadensis Tsuga canadensis Larix laricina Pinus strobus

Horsetail Tall Scouring Rush †Shining Club Moss †Running Ground Pine †Trailing Ground Pine Meadow Spikemoss Leathery Grape Fern Rattlesnake Fern Royal Fern Cinnamon Fern Sensitive Fern Spinulose Wood Fern Intermediate Wood Fern Marginal Wood Fern Broad Beech Fern Christmas Fern Lady Fern Silvery Glade Fern Maidenhair Fern Bracken Fern American Yew Hemlock Tamarack White Pine

Pinus resinosa * Pinus banksiana * Thuja occidentalis Juniperus communis Juniperus virginiana Typha latifolia Typha angustifolia Potamogeton pectinatus Potamogeton crispus Naias flexilis Alisma subcordatum Sagittaria latifolia Elodea canadensis Bromus tectorum Poa pratensis Dactylis glomerata Triodia flava Elymus canadensis Hystrix patula Ammophila breviligulata Calamovilfa longifolia Muhlenbergia glomerata Andropogon scoparius Andropogon Gerardi

Red Pine Jack Pine White Cedar Common Juniper Red Cedar Common Cattail Narrow-leaved Cattail Comb Pondweed Curly Pondweed Slender Naiad Common Water Plantain Common Arrowhead Common Waterweed **Downy Brome** Kentucky Bluegrass Orchard Grass False Redtop Canada Wild Rye Bottlebrush Grass Marram Grass Sand Reed Marsh Wild Timothy Little Bluestem Grass Big Bluestem Grass

Andropogon virginicus Carex pensylvanica Carex stricta Carex plantaginea Arisaema atrorubens Peltandra virginica Symplocarpus foetidus Lemna minor Tradescantia ohiensis Pontederia cordata Juncus tenuis Juncus balticus Uvularia grandiflora Allium tricoccum Hemerocallis fulva * Lilium michiganense Yucca filamentosa Asparagus officinalis Clintonia borealis Smilacina racemosa

Smilacina stellata

Maianthemum canadense Polygonatum pubescens Polygonatum canaliculatum Medeola virginiana Trillium recurvatum Trillium grandiflorum Smilax lasioneura Smilax ecirrhata Smilax rotundifolia Smilax tamnoides Sisyrinchium Iris virginica Cypripedium calceolus Cypripedium acaule Orchis spectabilis Habenaria clavellata Calopogon pulchellus Spiranthes cernua Goodyera pubescens

Liparis loeselii Salix nigra Salix glaucophylloides

Broom Sedge Pennsylvania Sedge Sedge Plantain-leaved Sedge †Jack-in-the-Pulpit Arrow Arum Skunk Cabbage Small Duckweed †Spiderwort Pickerel Weed Roadside Rush Lake Shore Rush Bellwort Wild Leek Orange Day Lily †Michigan Lily Yucca Asparagus †Bluebead Feathery False Solomon's Starry False Solomon's

Seal Canada Mayflower Downy Solomon's Seal Smooth Solomon's Seal Indian Cucumber Root †Red Trillium †Large-flowered Trillium Commom Carrion Flower Upright Carrion Flower Green Brier Bristly Green Brier †Blue-eyed Grass †Blue Flag †Yellow Lady's Slipper †Moccasin Flower **†Showy Orchis** †Clubspur Orchid †Grass Pink †Nodding Lady's Tresses †Downy Rattlesnake

Plantain †Loesel's Twayblade Black Willow Blue-leaved Willow

Salix syrticola Salix candida Populus tremuloides Populus grandidentata Populus alba * Populus deltoides Populus nigra * Juglans cinerea Juglans nigra Carya cordiformis Ostrya virginiana Carpinus caroliniana Alnus rugosa Fagus grandifolia Castanea dentata Quercus alba Quercus muehlenbergii Quercus rubra Quercus ellipsoidalis Quercus velutina Ulmus rubra Ulmus americana Urtica procera Laportea canadensis Comandra richardsiana Asarum canadense Rumex verticillatus Rumex orbiculatus Rumex crispus Rumex obtusifolius Rumex acetosella Tovara virginiana Polygonum aviculare Polygonum pensylvanicum Polygonum scandens Cycloloma atriplicifolium Chenopodium album Phytolacca americana Mollugo verticillata Claytonia virginica Stellaria media Cerastium vulgatum Agrostemma githago Lychnis alba Silene cucubalis

Saponaria officinalis

Dune Willow Hoary Willow Quaking Aspen Large-toothed Aspen White Poplar Cottonwood Lombardy Poplar Butternut Black Walnut Bitternut Hickory Hop Hornbeam Blue Beech Speckled Alder American Beech Chestnut White Oak Chinquapin Oak Red Oak Hill's Oak Black Oak Red Elm American Elm Stinging Nettle Wood Nettle Bastard Toadflax Wild Ginger Swamp Dock Great Water Dock Curly Dock Bitter Dock Field Sorrel Woodland Knotweed Common Knotweed Pennsylvania Knotweed Climbing False Buckwheat Winged Pigweed Lamb's Quarters Pokeweed Carpet Weed †Spring Beauty Common Chickweed Field Chickweed Corn Cockle

White Campion

Bouncing Bet

Bladder Campion

Dianthus armeria Ceratophyllum demersum Nuphar advena Nymphaea tuberosa Brasenia schreberi Ranunculus abortivus Ranunculus septentrionalis

Thalictrum dioicum Thalictrum dasycarpum Anemonella thalictroides Hepatica americana Hepatica acutiloba Anemone virginiana Anemone quinquefolia Isopyrum biternatum Caltha palustris Coptis groenlandica Aquilegia canadensis Actaea Pachypoda Podophyllum peltatum Caulophyllum thalictroides Berberis thunbergii Menispermum canadense Liriodendron tulipifera Asimina triloba Sassafras albidum Lindera benzoin Sanguinaria canadensis Dicentra cucullaria Lepidium virginicum Capsella bursa-pastoris Cakile edentula Nasturtium officinale Barbarea vulgaris Dentaria laciniata

Cardamine bulbosa

Arabis lyrata

Arabis laevigata

Mitella diphylla

Parnassia glauca

Ribes americanum

Ribes cynosbati

Cardamine douglassii

Sarracenia purpurea

Saxifraga pensylvanica

†Deptford Pink Hornwort †Yellow Pond Lily White Water Lily Water Shield Small-flowered Buttercup

†Swamp Buttercup Early Meadow Rue Tall Meadow Rue Rue Anemone †Round-lobed Hepatica †Sharp-lobed Hepatica Tall Anemone Wood Anemone False Rue Anemone †Marsh Marigold Goldthread †Wild Columbine White Baneberry May Apple Blue Cohosh Japanese Barberry Moonseed Tulip Tree Pawpaw Sassafras Spicebush †Bloodroot †Dutchman's Breeches Common Peppergrass Shepherd's Purse Sea Rocket Water Cress Yellow Rocket Toothwort **Bulbous Cress** Purple Spring Cress Sand Cress Smooth Bank Cress †Pitcher Plant

Swamp Saxifrage

Grass of Parnassus

Wild Black Currant

Prickly Wild Gooseberry

Mitrewort

Hamamelis virginiana Platanus occidentalis Physocarpus opulifolius Spirea alba Amelanchier arborea Amelanchier laevis Crataegus crus-galli Fragaria virginiana Potentilla palustris Potentilla recta Potentilla norvegica Potentilla simplex Potentilla anserina Geum rivale Rubus pubescens Rubus idaeus Rubus occidentalis Rubus hispidus Rubus allegheniensis Agrimonia gryposepala Agrimonia parviflora Rosa palustris Rosa carolina Prunus americana Prunus pumila Prunus pensylvanica Prunus serotina Prunus virginiana Cercis canadensis Lupinus perennis Trifolium arvense •Trifolium pratense Melilotus officinalis Melilotus alba Medicago sativa * Wisteria sinensis * Desmodium canadense Desmodium paniculatum Lathyrus japonicus Lathyrus palustris Apios americana Strophostyles helvola Amphicarpa bracteata Oxalis stricta Geranium maculatum Ptelea trifoliata

Witch Hazel Sycamore Ninebark Meadowsweet June Berry Allegheny Shadblow Cockspur Hawthorn Wild Strawberry Marsh Cinquefoil Sulphur Cinquefoil Norway Cinquefoil Common Cinquefoil Silverweed Purple Avens Dwarf Rasberry Red Rasberry Black Rasberry Swamp Dewberry Common Blackberry Tall Agrimony Swamp Agrimony Swamp Rose Pasture Rose Wild Plum Sand Cherry Pin Cherry Black Cherry Choke Cherry Redbud †Wild Lupine Rabbit-foot Clover Red Clover Yellow Sweet Clover White Sweet Clover Alfalfa Wisteria Hoary Tick Trefoil Panicled Tick Trefoil †Beach Pea Marsh Vetchling **Ground Nut** Trailing Wild Bean Hog Peanut Common Wood Sorrel Wild Geranium

Wafer Ash



Rue anemone.

Ailanthus Altissima Acalypha rhomboidea Euphorbia corollata Euphorbia polygonifolia Euphorbia maculata Rhus typhina Rhus copallina Rhus vernix Rhus radicans Ilex verticillata Euonymus obovatus Celastrus scandens Acer saccharum Acer rubrum Acer saccharinum Impatiens capensis Parthenocissus guinguefolia Vitis aestivalis Vitis riparia Abutilon theophrasti Hypericum perforatum

Tree of Heaven Three-seeded Mercury Flowering Spurge Seaside Spurge Spotted Spurge Staghorn Sumac Shining Sumac Poison Sumac . Poison Ivy †Winterberry Running Strawberry Bush †Climbing Bittersweet Sugar Maple Red Maple Silver Maple Spotted Touch-me-not

Virginia Creeper Summer Grape Riverbank Grape Velvetleaf Common St. John's Wort Hypericum kalmianum
Hypericum virginicum
Viola striata
Viola rostrata
Opuntia humifusa *
Decodon verticillatus
Nyssa sylvatica
Epilobium angustifolium
Epilobium coloratum
Circaea quadrisulcata
Myriophyllum exalbescens
Aralia nudicaulis
Hydrocotyle umbellata
Sanicula gregaria
Sanicula trifoliata

Osmorhiza longistylis Cryptotaenia canadensis Daucus carota Cicuta maculata Cornus canadensis Cornus florida

Kalm's St. John's Wort Marsh St. John's Wort †Striped White Violet †Long-spurred Violet Prickly Pear Swamp Loosestrife Common Evening Primrose Fireweed Cinnamon Willow Herb Enchanter's Nightshade Spiked Water Milfoil Wild Sarsaparilla Marsh Pennywort Clustered Black Snakeroot Large-fruited Black Snakeroot Smooth Sweet Cicely Honewart Wild Carrot Water Hemlock †Bunchberry †Flowering Dogwood



Indian pipes.

Cornus stolonifera Cornus rugosa Cornus obliqua Cornus racemosa Cornus alternifolia

Chimaphila maculata Pyrola elliptica Chimaphila umbillata Pyrola asarifolia Monotropa uniflora Epigaea repens Gaultheria procumbens Vaccinium angustifolium Vaccinium corymbosum Vaccinium macrocarpon Lysimachia nummularia Lysimachia thyrsiflora Lysimachia ciliata Lysimachia lanceolata Trientalis borealis Fraxinus americana

Red Osier Dogwood Round-leaved Dogwood Silky Dogwood Gray Dogwood Alternate-leaved Dogwood Spotted Wintergreen †Large-leaved Shinleaf Prince's Pine †Pink Shinleaf †Indian Pipe †Trailing Arbutus Wintergreen Early Low Blueberry Highbush Blueberry Large Cranberry -Moneywort Tufted Loosestrife Fringed Loosestrife Lance-leaved Loosestrife †Starflower White Ash

Fraxinus pennsylvanica Ligustrum vulgare * Sabatia angularis Gentiana crinita Gentiana andrewsii Bartonia virginica Apocynum androsaemifolium Asclepias tuberosa Asclepias incarnata Asclepias syriaca Convolvulus arvensis Cuscuta gronovii Phlox divaricata Lithospermum arvense Lithospermum croceum Lithospermum canescens Verbena urticifolia Verbena hastata Scutellaria lateriflora Nepeta cataria Prunella vulgaris

Green Ash
Common Privet
†Rose Gentian
†Fringed Gentian
†Bottle Gentian
Screwstem

Spreading Dogbane
†Butterfly Weed
†Swamp Milkweed
Common Milkweed
Field Bindweed
Common Dodder
Blue Phlox
Corn Gromwell
†Hairy Puccoon
†Hoary Puccoon
White Vervain
Blue Vervain
Mad-dog Skullcap
Catnip
Self Heal

Leonurus cardiaca Monarda fistulosa Monarda punctata Pycnanthemum virginianum Common Mountain Mint Lycopus americanus Solanum dulcamara Solanum americanum Solanum carolinense Physalis heterophylla Verbascum thapsus Chelone glabra Gerardia purpurea Gerardia flava Melampyrum lineare Pedicularis lanceolata Pedicularis canadensis Epifagus virginiana Conopholis americana Utricularia vulgaris Utricularia intermedia Phryma leptostachya Plantago major Plantago rugelii Plantago lanceolata Galium aparine Galium circaezans Galium concinnum Galium asprellum Mitchella repens Cephalanthus occidentalis Lonicera tatarica I onicera canadensis Lonicera dioica Linnaea borealis Viburnum cassinoides Viburnum lentago Viburnum acerifolium Sambucus canadensis Campanula americana Campanula rotundifolia Campanula aparinoides Lobelia cardinalis Lobelia siphilitica Lobelia kalmii Vernonia altissima Eupatorium maculatum

Motherwort Wild Bergamot Horse Mint Common Water Horehound Bittersweet Nightshade Black Nightshade Horse Nettle Clammy Ground Cherry Great Mullein Turtlehead Purple False Foxglove Smooth False Foxglove Cow Wheat Swamp Betony Wood Betony Beech Drops Cancer Root Great Bladderwort Flat-leaved Bladderwort Lopseed Common Plantain Red-stalked Plantain **English Plantain** Annual Bedstraw Wild Licorice Shining Bedstraw Rough Bedstraw Partridge Berry Buttonbush Tartarian Honeysuckle American Fly Honeysuckle Red Honeysuckle †Twinflower Witherod Nannyberry Maple-leaved Viburnum Elderberry Tall Bellflower †Harebell Marsh Bellflower

Eupatorium purpureum Eupatorium perfoliatum Eupatorium rugosum Solidago caesia Solidago racemosa Solidago nemoralis Solidago ulmifolia Solidago rugosa Solidago riddellii Solidago graminifolia Aster macrophyllus Aster sagittifolius Aster lateriflorus Aster umbellatus Erigeron canadensis Antennaria plantaginifolia Ambrosia trifida Ambrosia artemisiifolia Xanthium strumarium Rudheckia hirta Helianthus divaricatus Coreopsis tripteris Bidens cernua Bidens frondosa Bidens coronata Achillea millefolium Chrysanthemum leucanthemum Artemisia caudata Artemisia ludoviciana * Cacalia Atriplicifolia Senecio aureus Arctium minus Cirsium vulgare Cirsium muticum Cirsium arvense Cichorium intybus Krigia virginica Krigia biflora Tragopogon pratensis Taraxacum officinale Lactuca canadensis Prenanthes racemosa Prenanthes alba Hieracium aurantiacum

Purple Joe-Pye Weed Common Boneset White Snakeroot Blue-stemmed Goldenrod Dune Goldenrod Oldfield Goldenrod Elm-leaved Goldenrod Rough Goldenrod Riddell's Goldenrod Grass-leaved Goldenrod Big-leaved Aster Arrow-leaved Aster Side-flowering Aster Flat-top Aster Horseweed Pussy Toes Giant Ragweed Common Ragweed Cocklebur Black-eyed Susan Woodland Sunflower Tall Coreopsis Nodding Bur Marigold Common Beggar's Ticks Tall Swamp Marigold Yarrow

Ox-eye Daisy Beach Wormwood White Sage Pale Indian Plantain Golden Ragwort Common Burdock **Bull Thistle** Swamp Thistle Field Thistle Chicory **Dwarf Dandelion** False Dandelion Goat's Beard Common Dandelion Wild Lettuce Glaucous White Lettuce White Lettuce Orange Hawkweed

+Cardinal-flower

Bog Lobelia

Tall Ironweed

†Great Blue Lobelia

Spotted Joe-Pye Weed

Amphibians and Reptiles

These amphibians and reptiles are likely to be found in the Grande Mere Area. Those indicated by an * have not been observed in Grande Mere. Names used are from *A Field Guide to the Reptiles & Amphibians of Eastern North America* (Roger Conant, 1958, Houghton Mifflin Co.).

Plethodon cinereus * Ambystoma tigrinum Ambystoma maculatum * Diemictylus viridescens Bufo americanus Bufo woodhousei Acris crepitans Hyla crucifer Hyla versicolor * Pseudacris triseriata Rana catesbeiana Rana clamitans Rana pipiens Rana palustris Chelydra serpentina Clemmys guttata Terrapene carolina Graptemys geographica Chrysemys picta Emydoidea blandingi Trionyx spinifer * Natrix sipedon

Natrix septemvittata *
Storeria dekayi *
Thamnophis sirtalis
Thamnophis sauritus *
Heterodon platyrhinos
Coluber constrictor
Elaphe obsoleta
Lampropeltis doliata *
Sistrurus catenatus

Red-backed Salamander
Eastern Tiger Salamander
Spotted Salamander
Red-spotted Newt
American Toad
Fowler's Toad
Cricket Frog
Spring Peeper
Gray Tree Frog
Western Chorus Frog
Bullfrog
Green Frog

North American Leopard Frog
Pickerel Frog
Snapping Turtle
Spotted Turtle
Eastern Box Turtle
Map Turtle
Painted Turtle
Blanding's Turtle
Spiny Soft-shelled Turtle

Water Snake
Queen Snake
Brown Snake
Eastern Garter Snake
Eastern Ribbon Snake
Eastern Hognosed Snake
Blue Racer
Black Rat Snake
Milk Snake
Eastern Massasauga

Common North American

Birds

by Walter M. Booth

The Grande Mere Area is a virtual sanctuary for birds and is a favorite area for local bird-watchers. Because of a variety of natural hibitats — deciduous woodlands, brushy areas, dunelands, boglands, coniferous woods, and large watery areas — many different kinds of birds have been recorded there. The location of the Grand Mere Area under a heavily traveled bird migration route along the eastern shore of Lake Michigan enhances the attractiveness of the area to students and other observers of bird life. For many years bird-watchers have found there a wide and interesting assortment of birds. The accompanying list of birds identified in the Grand Mere Area includes 235 species and the list should certainly continue to grow.

Exploration along the trails of the portion known as the Nature Study Preserve during several consecutive summers has resulted in the discovery that the Worm-eating Warbler and the Summer Tanager may both appear regularly in summer. These southern songbirds are of extremely infrequent occurrence in Michigan and have been recorded more often in the Grande Mere Area than at any other locale in the state. They share the area with the more northern Black-throated Green Warblers and Canada Warblers. Occasionally other warblers of northern affinities have been discovered here in summer.

During the seasons of migration the Grande Mere Area is regularly visited by many individuals of numerous species. From spring thaw into April, and again from October until freeze-up, the lakes attract many ducks, particularly Redheads, American Widgeons, Ringnecked Ducks, and Buffleheads. The ducks share the lakes with other water birds, such as Horned and Pied-billed Grebes, American Coots, Herring Gulls, and Ring-billed Gulls. An occasional Common Loon or a few Whistling Swans or Mute Swans may also be there.

Migration of songbirds is at its peak between late April and late May and again from mid-September into October. During these seasons many flycatchers, wrens, thrushes, kinglets, vireos, warblers, orioles, finches, and sparrows swarm through the treetops, understory, and shrubs migrating by night and feeding and resting during the day.

During these peak seasons of migration probably more species of songbirds can be identified at Grande Mere in a day than at any other locality in Berrien County.

Great hordes of birds of other species migrate by day, either above the lakeside dunes or out over Lake Michigan. Early spring, from mid-March to 20 April features tremendous flights of blackbirds. When conditions are right for such migration it is not at all unusual to see between 20,000 and 50,000 individual birds in a single day. The blackbirds are accompanied by much smaller numbers of other species, including Robins and Yellow-shafted Flickers. In early and mid-May great flocks of Blue Jays, accompanied by many American Goldfinches, Baltimore Orioles, Red-headed Woodpeckers, and others pass through. Late May brings Cedar Waxwings by the thousands. In some years many hawks may be seen in diurnal migration between mid-April and mid-May and again between mid-September and early November.

Early October witnesses the return flight of thousands of Blue Jays and American Goldfinches. The main feature of fall migration, however, is the great movement of gulls, terns, and ducks. On favored days thousands of birds may be observed in southward flight:

Common Terns from mid-August to mid-September, Ring-billed Gulls from mid-August into October, Herring Gulls from late September into December, and ducks from early October to mid-November.

When duck flights are at their peak it is not at all unusual to see 5,000 to 20,000 individuals in a morning. Most of these seem to be scaup and Ring-necked Ducks, but birds of numerous other species accompany them. Horned Grebes, Double-crested Cormorants, jaegers, and shorebirds frequently participate in these migrations, but usually in very small numbers.

By late December or early January winter stability has been achieved among the birds. Gone are the ducks, coots, loons, and grebes from ice-covered lakes. Leafless trees no longer shelter or provide song perches for warbler, vireo, flycatcher, or thrush. To be sure, birds are still there, but not very many. Downy Woodpeckers, Brown Creepers, and White-breasted Nuthatches search the tree trunks for dormant insects; Slate-colored Juncos, Tree Sparrows, and American Goldfinches swarm through weedy areas devouring the seeds; an occasional hawk patrols the sky overhead; and Cardinals, Black-capped Chickadees, and Tufted Titmice whistle their cheery songs to each other. During some winters small numbers of boreal finches — Pine Siskins, Evening Grosbeaks, crossbills, and Common Redpolls — may also be found.

Spring returns again, or at least momentarily, with the first Canada Geese and blackbirds in late February or early March. These are followed by Robins, Common Crows, and ducks, and as warm weather becomes established, by swallows, warblers, thrushes, orioles, and the others.

The Oronoko Bird Club, with headquarters at Andrews University at Berrien Springs, schedules several field trips annually to the Grande Mere Area.

These birds have been observed in the Grande Mere Area between 1935 and 1973. Common names are those used in "A Field Guide to the Birds" (Roger Tory Peterson, 1947, Houghton Mifflin Co.). Species marked with an * probably nest or have nested there. Species marked with a † have been observed to nest there.

Common Loon Red-throated Loon Horned Grebe Pied-billed Grebe * Brown Pelican

Double-crested Cormorant

Great Blue Heron Green Heron * Cattle Egret Common Egret

Black-crowned Night Heron Yellow-crowned Night Heron

Least Bittern *
American Bittern *
Mute Swan
Whistling Swan
Canada Goose
Snow Goose
Blue Goose
Mallard †
Black Duck
Gadwall
Pintail

Green-winged Teal Blue-winged Teal * Cinnamon Teal American Widgeon

Shoveler Wood Duck * Redhead Ring-necked Duck Canvasback Greater Scaup Lesser Scaup Common Goldeneye

Bufflehead Oldsquaw Harlequin Duck White-winged Scoter

Surf Scoter
Common Scoter
Ruddy Duck
Hooded Merganser
Common Merganser
Red-Breasted Merganser

Turkey Vulture
Sharp-shinned Hawk
Cooper's Hawk
Red-tailed Hawk *
Red-shouldered Hawk *
Broad-winged Hawk
Rough-legged Hawk

Bald Eagle Marsh Hawk Osprey

Peregrine Falcon Pigeon Hawk Sparrow Hawk *

Ring-necked Pheasant *

Sandhill Crane

Virginia Rail * Sora * Common Gallinule * American Coot

Killdeer

Black-bellied Plover American Woodcock

Common Snipe Upland Plover Spotted Sandpiper * Solitary Sandpiper

Willet Greater Yellowlegs Baird's Sandpiper

Least Sandpiper Dunlin

Semipalmated Sandpiper

Sanderling Parasitic Jaeger Herring Gull Ring-billed Gull Bonaparte's Gull

Little Gull Forster's Tern Common Tern Caspian Tern Black Tern † Rock Dove Mourning Dove †

Yellow-billed Cuckoo * Black-billed Cuckoo *

Screech Owl * Great Horned Owl *

Snowy Owl Barred Owl Long-eared Owl Short-eared Owl Whip-poor-will † Common Nighthawk * Chimney Swift *

Ruby-throated Hummingbird *

Belted Kingfisher Yellow-shafted Flicker † Pileated Woodpecker

Red-bellied Woodpecker * Red-headed Woodpecker * Yellow-bellied Sapsucker Hairy Woodpecker † Downy Woodpecker † Eastern Kingbird *

Great Crested Flycatcher † Eastern Phoebe * Yellow-bellied Flycatcher Acadian Flycatcher Traill's Flycatcher * Least Flycatcher * Eastern Wood Pewee †

Olive-sided Flycatcher Horned Lark Tree Swallow * Bank Swallow

Rough-winged Swallow

Barn Swallow Cliff Swallow Purple Martin Blue Jay † Common Crow *

Black-capped Chickadee †

Tufted Titmouse †

White-breasted Nuthatch † Red-breasted Nuthatch

Brown Creeper House Wren † Winter Wren Carolina Wren

Long-billed Marsh Wren * Short-billed Marsh Wren

Mockingbird * Catbird † Brown Thrasher †

Robin † Wood Thrush * Hermit Thrush Swainson's Thrush Gray-cheeked Thrush

Veery †

Eastern Bluebird * Blue-gray Gnatcher Golden-crowned Kinglet Ruby-crowned Kinglet Cedar Waxwing *

Water Pipit

Starling † White-eved Vireo * Bell's Vireo Yellow-throated Vireo † Solitary Vireo Red-eyed Vireo † Philadelphia Vireo Warbling Vireo † Black-and-white Warbler Prothonotary Warbler Worm-eating Warbler Golden-winged Warbler Blue-winged Warbler Tennessee Warbler Orange-crowned Warbler Nashville Warbler Parula Warbler Yellow Warbler † Magnolia Warbler Cape May Warbler Black-throated Blue Warbler Myrtle Warbler Black-throated Green Warbler * Cerulean Warbler Blackburnian Warbler Chestnut-sided Warbler Bay-breasted Warbler Blackpoll Warbler Pine Warbler Prairie Warbler † Palm Warbler Ovenbird * Northern Waterthrush Louisiana Waterthrush Kentucky Warbler Connecticut Warbler Mourning Warbler Yellowthroat † Yellow-breasted Chat * Hooded Warbler † Wilson's Warbler

Canada Warbler † American Redstart * House Sparrow † Bobolink Eastern Meadowlark † Red-winged Blackbird † Orchard Oriole Baltimore Oriole † Rusty Blackbird Common Grackle † Brown-headed Cowbird † Scarlet Tanager † Summer Tanager * Cardinal † Rose-breasted Grosbeak † Indigo Bunting † **Evening Grosbeak** Purple Finch Common Redpoll Pine Siskin American Goldfinch † Red Crossbill White-winged Crossbill Rufous-sided Towhee † Savannah Sparrow Grasshopper Sparrow Henslow's Sparrow Slate-colored Junco Oregon Junco Tree Sparrow Chipping Sparrow * Clay-colored Sparrow Field Sparrow * Harris' Sparrow White-crowned Sparrow White-throated Sparrow Fox Sparrow Lincoln's Sparrow Swamp Sparrow Song Sparrow †

Snow Bunting

Note: Since the type was set for this book, the Golden Eagle has been observed in Grande Mere.

Mammals

These mammals probably can be found in the Grande Mere Area or have been found there in the past. Names used are from *Mammals of the Great Lakes Region* (William H. Burt, 1957, The University of Michigan Press). Those indicated by an * are no longer found there.

Didelphis marsupialis Scalopus aquaticus Condylura cristata Sorex cinereus Blarina brevicauda Myotis lucifugus Myotis sodalis Lasionycteris noctivagans Eptesicus fuscus Lasiurus borealis Lasiurus cinereus Ursus americanus * Procvon lotor Mustela frenata Mustela rixosa Mustela vison Lutra canadensis * Mephitis mephitis Vulpes fulva Canis lupus * Felis concolor *

Opossum Eastern Mole Starnose Mole Masked Shrew Shorttail Shrew Little Brown Myotis Indiana Myotis Silver-haired Bat Big Brown Bat Red Bat Hoary Bat Black Bear Raccoon Longtail Weasel Least Weasel Mink River Otter Striped Skunk **Red Fox** Gray Wolf Mountain Lion Bobcat Woodchuck

Tamias striatus Tamiasciurus hudsonicus Sciurus carolinensis * Sciurus niger Glaucomys volans Castor canadensis * Peromyscus maniculatus Peromyscus leucopus Synaptomys cooperi Microtus pennsylvanicus Pitymys pinetorum Ondatra zibethica Rattus norvegicus Mus musculus Zapus hudsonius Erethizon dorsatum * Sylvilagus floridanus Cervus canadensis * Odocoileus virginianus Bison bison *

Citellus tridecemlineatus

Thirteen-lined Ground Squirrel Eastern Chipmunk Red Squirrel Eastern Gray Squirrel Eastern Fox Squirrel Southern Flying Squirrel Beaver Deer Mouse White-footed Mouse Southern Bog Lemming Meadow Vole Pine Vole Muskrat Norway Rat House Mouse Meadow Jumping Mouse Porcupine Eastern Cottontail Whitetail Deer Bison



Lynx rufus *

Marmota monax







The Early Days by Juniata Cupp

The Indian Era

The Grande Mere Area lies in close proximity to one of the principal Indian routes, the Great Sauk Trail, which passed through the south end of Berrien County. Since the St. Joseph River was one of the Indian's favorite waterways, many a red-man passed through Grande Mere to reach this stream, perhaps at the time when it was called the River of the Miamis. It is believed that the Miami tribe of Indians preceded the Pottawatomis.

With the coming of the explorers, this area was visited by a number of white men; La Salle, with three friars, ten Frenchmen, and a Mohican hunter in four canoes skirted the lower end of Lake Michigan and passed through Grande Mere on their way from Green Bay, Wisconsin, to the mouth of the St. Joseph River (where La Salle built Fort Miami) in November 1679.

Grande Mere was on the route taken by many settlers and travelers. Historically, Grande Mere thus lies close to the crossroads of early travel activity.

The St. Joseph River accommodated the various tribes of Indians, but the earliest was believed to be the Miamis. That tribe left the area in 1681 but returned some dozen years later, only to be driven away again by the Pottawatomis who seemed to be taking possession of this area and who ultimately made it their homeland for many years to come.

Pottawatomi means "People of the Place of Fire" or perhaps another interpretation indicates that they were a "Nation of Fire Blowers." Both the Miamis and Pottawatomis camped along the shores of Lake Michigan as well as at Niles and Berrien Springs, and evidence of their campsites has been uncovered in numerous spots. It has been reported that the Pottawatomis were known to be courageous and hardy warriors. They mingled with the white man and got along well with the early settlers, particularly the French.

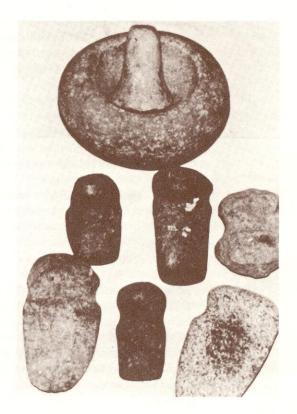
History also indicates that a small tribe called the Musquakees, a branch of the Fox Tribe, was located for a short time on the St. Joseph River. The Ottawas and the Chippewas also lived in the St. Joseph River Valley until all were driven out by the stronger of the tribes. The Indians of this region spent at least part of each year living in small villages or campsites in locations sheltered from cold north and west winds, and always near a source of water. A location near a cattail marsh was almost a necessity, since their huts were made of mats woven from the cattail leaves. These marshes were valuable sources of food also. Roots of cattail and arrowhead (duck potato) are excellent boiled or roasted. Deer provided meat and hides for clothing and winter protection for their huts. Beaver and muskrats provided meat and fur; fish, frogs, turtles, and waterfowl, too, were always plentiful.

One can easily imagine the activities of the Indians when they camped in Grande Mere; however, most of the evidence of their having lived there has been erased. A well-defined campsite existed on the east side of the I-94 Highway between Grande Vista and the Stevensville Road, until it was destroyed almost entirely by the removal of sand for use in highway construction.

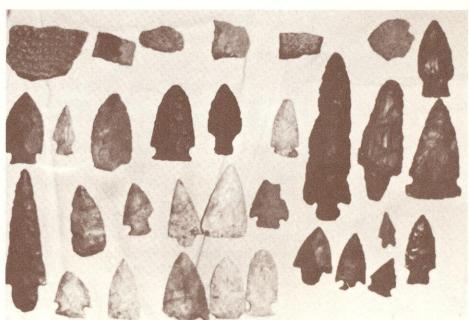
Fairly extensive campsites, one between North Lake in Grande Mere and Lake Michigan, and another south of Dunham Dunes, were discovered some years ago and scattered evidence of still another could be seen south of South Lake. The top of the ridge on the east side of Grande Mere, where I-94 is now located, seems to have been a favorite camping place. Two local archeologists, Louis P. Ueck and the late Harvey Franz, discovered a number of remnants of the site in 1942 but left everything intact.



Louis P. Ueck and the late Harvey Franz at an Indian site in 1942.



Indian artifacts.



Projectiles found in Grande Mere.

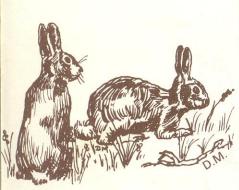
The most extensive Indian campsite found in Grande Mere was discovered just west of South Lake and southwest of Dunham Dunes as recently as ten years ago. Another spot where Indian artifacts have been found is on the Smietanka farm near North Lake. Finding potsherds, fragmentary parts of pots made by the Indians, gave rise to speculation that Indians congregated in these particular areas.

Many people believe that it was the Pottawatomis who settled in Grande Mere. Their pottery was called the woodland type distinguishing it from that of the western plains Indians who used prairie sources for their pottery materials along with crushed granite for reinforcing material. The woodland type was always decorated in some fashion with distinctive scratches and markings, some made by a cordwound paddle drawn across the moist clay of the vessel.

One local archeologist believes that remnants of Indian fire-pits could still be found if certain areas were carefully probed. It is believed that the one that remains east of I-94 dated back to between 1670 and 1700. Stone projectiles (arrowheads) and axes were found throughout the area in earlier years but vegetation covers the most likely places now. Few stone projectiles were made in the area after the white man's introduction of guns. The Indians had so many of their primitive weapons stored in their "trading posts" there was no need to continue making them. Also, the Indians became extremely eager to acquire the more effective fire-arms and would go to any length to obtain them.

It would prove interesting to ascertain just what activities the Indians were involved in while camping in Grande Mere. Surely the braves and squaws taught their children the art of living off the land: the building of garden-beds having almost the appearance of formal gardens; primitive methods of trapping and fishing; and signs of weather conditions. For example, when smoke isn't rising straight up (due to lowering of atmospheric pressure), rain would not be far off; and whistles would sound louder and clearer before rain. They noticed also that leaves would turn their backs before a rain; and when crows would swoop and roll in the air, high winds could be expected. When Field Sparrows would splash around in puddles, rain could be expected.

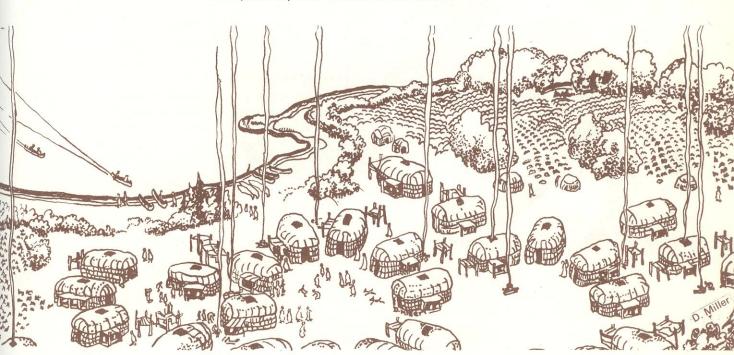
Indians knew that when the wind was in the south good fishing could be expected but when the wind blew in from the north fishing was poor. Children were taught how to make secret trails or to bend saplings for trail markers — some still are found in Berrien County; how to stalk birds and other animals; how to make and pack a canoe; and how to cook over an open fire.



Mr. Ueck apparently believes that the cooking pots used in Grande Mere were large clay vessels that were placed in a deep hole in the sand, with the brim exposed just a few inches, and filled with water. Stones were heated to a white heat on a nearby fire and dropped into the water causing it to boil. Meat to be cooked would be put into the water, and then the procedure of removing the cooling stones and replacing them with newly heated ones would continue until the cooking was completed.

Indians of all tribes were excellent trappers and hunters because they were familiar with the ways of the wild creatures of the air, the land, and the lakes and streams; they recognized where different mammals, birds, and fish lived at different seasons of the year, what they ate, and how the different species reacted to different situations — trapping only for their immediate needs for food or clothing.

The Indians in Grande Mere must have had to use all their ingenuity to evade white men when they attempted to take all the tribesmen west in 1838-1840. Those Indians who successfully eluded the soldiers sent here to round them up lived for years without detection in secluded spots. No one knows with certainty where the hideouts were but several have been suggested by local archeologists. Of all these places, Grande Mere would have been one of the most favorable and probably one of the most secluded.



Indian Usage of Some Wild Flowers and Other Plants

Club Moss (Ground pine) Medicine—spores to stop bleeding

North American Lotus Food—roots were important food when

baked, seeds when roasted

Michigan Holly

Medicine—bark steeped and drunk for

fever

Ladyslippers and Orchids

Medicine

Trillium (all species)

Medicine—asthma and bleeding

Wild Columbine

Medicine—root brewed for stomach

trouble

Jack-in-the-pulpit

Food—after acid is removed from the roots

Pitcher Plant

Medicine-to ease childbirth

Twin Flower

"Squaw Medicine"

Clintonia

Medicine-poultice for dog-bite Smoking mixture—to attract deer

Starflower Shinleaf

Charm—tea drunk for good luck in

hunting

Bellwort

Medicine—liniment

Blue Flag

Medicine—poultice and cathartic, charm

—piece carried to protect from snake

bite

Hepatica

Medicine and yellow dye

Canada Anemone

"Medicine-lodge root" chewed to clear throat to sing well in Medicine-lodge

ceremony.

Bloodroot

Medicine—sore throat; dye for painting

the face

Violet

Medicine—blood purifier, heart disease

Dwarf Dogwood

Medicine-root tea for babies' colic

False Lily-of-the-valley Medicine—kidneys, headache, sore throat

Spring Beauty

Food—roots used as emergency food

Yellow Rocket

Food—used as greens

Fire-weed

Medicine—exact use not clear

Common Milkweed

Food—tender shoots for greens. Charm—

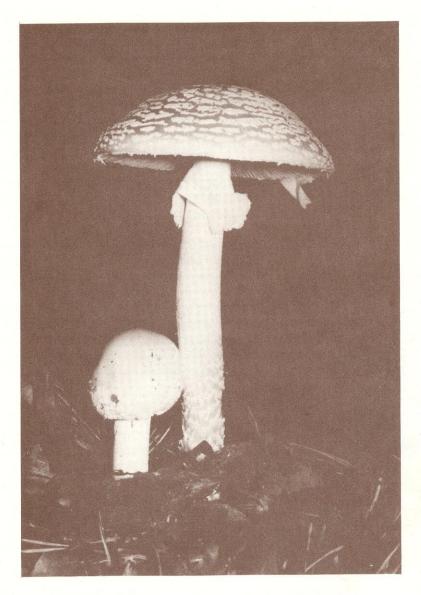
juice put on deer call

Healall

Medicine—kidney trouble and vermifuge



Indian hut.



Amanita-Muscaria.
"Not Edible"

Joe-Pye Weed

Daisy Fleabane

Aster Black-eyed Susan Medicine—solution of root used to wash babies to give them strength

Medicine—smoke dried flowers for headcold. Smoked to attract birds and deer.

Smoked to attract deer when hunting.

Medicine—root tea for cold. Dye—disc florets boiled with rushes for yellow dye.

Early Settlers and Afterward

As long ago as 1827, old records show that the first white man to settle in Lincoln Township on a large tract of land was Major Timothy S. Smith, a teacher at the Carey Mission — the hub of many educational, social, and religious activities. It is reported that Major Smith laid out on paper quite a "village" just west of the three Grande Mere lakes, to lie along the Lake Michigan shoreline. In 1837, three St. Joseph men plotted a number of lots at the outlet of these three lakes for a village site to be named "Liverpool." The proposed project was to use the outlet as power for manufacturing purposes, primarily to cut the solid forests of white pine; however, the owners' objectives never materialized.

Very few roads lead into Grande Mere. The trail that is now Wishart Road skirted South Lake, joined another trail near Middle Lake, and followed the southern border of Middle Lake out to what probably was the county road but it also meandered around the west side of Middle Lake, cutting through between it and North Lake. This scenic road is, for the most part, in the same location and condition as it was in 1887. It is also interesting to note that the railroad that passed through western Lincoln Township was the Western Michigan and Chicago, which later became the Pere Marquette, and is now the Chesapeake and Ohio.

In 1884, Lincoln Township was considered the youngest township in the county. Until 1867 it constituted a part of Royalton Township. One of the earliest settlements in Berrien County was in Lincoln Township and again it was Major Smith who settled in Section 1 near the mouth of Hickory Creek.

Among the pioneers who succeeded Major Smith were Martin Lounsbury and Samuel Davis, who settled in Sections 24 and 25, respectively, in 1842. Gould Parrish settled in Section 36 in 1843 and about the same time Harrison and John Nash settled in Section 34; and Leonard Archer settled in Section 36 in 1845. Among other early settlers were Stephen Lamoin, Alonzo Spear, Stephen Bonnell, Alexander Wilbur, Andrew and Isaac Smoke, Dr. J. N. Purcell, James Dunham, Hiram Brown, and William Walworth. Other pioneers in the eastern part of the township were Jacob Fikes, John Bort, Orin Brown, Chester Phelps, John Graham, Artemus Walker, Henry Evans, William Brown, George Martin, and T. W. Dunham. In 1887, Mr. Dunham was the largest land owner, holding title to everything west of the three lakes along Lake Michigan (the bulk of Grande Mere), with the exception of the southwest corner, owned by A. Thornton. Another small area was owned by Hattie B. Piersma, and at the far end of



Spiderwort.

Milkweed.

North Lake several parcels were owned by L. D. Smith, Enos Dunham, and James Dunham.

Many of these names still appear among present-day residents who are the fourth and fifth generations. The name Dunham is still closely identified with memorable activities in Grande Mere by those living in the Stevensville area today. Several generations held title to large tracts in Grande Mere, but this land was finally divided among a number of purchasers who attempted farming and other efforts, all of which failed. It is said that the western part of Lincoln Township, Grande Mere, was the last to be settled because of the sterile appearance of the soil. Actually, it was all sand dunes and most settlers gave preference to more profitable areas.

In 1884, the population of the town of Stevensville, directly to the east of Grande Mere, was 117. In 1884, the population of the Township was 1,684. Today, the population of Lincoln Township, including Stevensville, is 11,007.

Mr. Dunham started a sawmill on the northwest shore of Middle Lake in 1867, subsequently developing an enormous lumber business on the Grande Mere lakes. To facilitate shipment of lumber, Mr. Dunham erected "Dunham Pier" in Lake Michigan, from which schooners were loaded for lake crossings. This pier was just west of the sawmill and until a few years ago the weathered pilings could still be seen just above the surface of the lake and may again when the water level drops in years to come. Should one look very closely, it is possible to detect a huge pile of sawdust at this point despite the fact that vegetation has almost obliterated it.

Mr. Dunham was fully aware of the effect the prevailing lake winds had on fruit growing. The cold atmosphere retarded the swelling of early fruit buds in the spring and in the late fall retained the acquired warmth, modifying a cold snap, thereby preventing an early killing frost. After the lumber business declined, Mr. Dunham planted an orchard of peaches on a sheltered spot northwest of the South Lake. To this day, locally, some refer to the area as "Dunham's Peach Orchard." The orchard was planted on what had once been an Indian village site — long since buried by the sands shifted by that same westerly wind that was thought to be so beneficial. The recent dune just west of this site has been formed since the peach orchard days and is already 100 feet above the lakes.

The well-known Dunham Dune which lies northeast of this site rises to a height of more than 150 feet. Just southwest of this area is "Bald Top," a dune 170 feet or more above the lake level. "Johnson Dune"



Sunday School Picnic at Dunham Resort in 1905. Courtesy of Gary Ueck.

southeast of "Bald Top" rises to a height of 180 feet above the present lake level (760 feet above sea level). This is the highest point in the entire Grande Mere group of dunes.

While the Grande Mere Area had other activities, none was better known than the Dunham Resort, located on the Lake Michigan shore northwest of Middle Lake. Social groups staged all-day affairs at this popular place. Sunday school outings were always sure to be held there. The Dunhams "took in summer boarders," many coming from Chicago and other cities to spend a month or more. The main building accommodated the dining room and kitchen, while just a few yards away another building was used for sleeping quarters. Older residents of the area can still remember today how gracious the Dunhams were. The local boys were allowed to use the outside stairway up to the second floor, actually an attic, where they could shed their clothes and put on their short-sleeved, knee-length cotton "bathing suits" to go swimming in Lake Michigan.

Dorothy Coleman Rhode likes to recall some of the early events occurring in Grande Mere, especially the activities at the Dunham resort. She remembers the advertisement that appeared in the newspaper when Mr. Dunham launched his resort business. It read:

Grande Mere Resort September 24, 1910

James R. Dunham is platting about 14 acres west of Stevensville and will call the plat "Grande Mere Resort." The plat contains some 60 lots and already 20 are spoken for. Mr. Dunham expects ready sale for the entire plat and when these lots are disposed of he will plat more ground. The lots are selling for \$50.00 to \$75.00 per lot but an advance will be made later on.

Mrs. Rhode also remembers the popularity of the old Grande Mere Inn when on weekends Chicago people alighted from the old Pere Marquette train at the old railroad station in Stevensville, where Tommy Walton would transport them down to the Inn. She says the process was reversed on Sunday evenings and often the passengers would get out and walk up the steep hill into Stevensville to make the trip easier for the horse. She said, "many of us walked to town each day and my father and I always walked from the railroad station, carrying our luggage and other parcels, and never once did we think it a hardship. One of my favorite walks at Grande Mere was through the woods to the old "ice house." I remember when Dunham Avenue was just a path. Some of the customers of Grande Mere Inn enjoyed the narrow paths through the woods for there were no other roads but the wagon trail to the Inn."

The resort business flourished in these beautiful surroundings, but as the automobile became faster and more reliable, resorters traveled farther away for more exciting things to do. Finally the Dunham Resort was no more. The old 11-room Boarding House still stands nestled in the dunes and has literally withstood the sands of time, having had a number of owners who have used it for one purpose or another. It is currently owned by Mr. and Mrs. Ralph Davis. The William Dunhams still own a house in the Grande Mere Area.

Parcels of land were being bought in Grande Mere and during the twenties and early thirties several local residents attempted to convert the Grande Mere Area once more into orchards and nurseries. Fruit farming and nurseries all gave way to land speculation, but with the present emphasis on ecology it becomes more important that Grande Mere be preserved as a natural area.

It has been found that many cultivated plants simply will not survive in Grande Mere, but wild flowers, shrubs, and trees will thrive there in abundance. For decades, many people just took Grande Mere for granted. They roamed the winding roads, climbed to the top of the highest dunes and fished from the tiny jewel-like lakes. Many from Lincoln Township enjoyed the solitude for years; next came people who wanted to live amid the beauty of Grande Mere and who therefore built their homes on the shores of Lake Michigan.

Over the years, however, college professors brought their classes to Grande Mere. Botanists, zoologists, ornithologists, archeologists, and photographers found Grande Mere the epitome of outdoor classrooms. In the Grande Mere Area the study of such varied subjects can be pursued to the fullest. Time and "progress" brought the I-94 superhighway, which not only disturbed the Indian campsites and scarred

some of the dunes for sand removal but altered some of the most significant natural areas. However, along I-94 and especially along Thornton Drive, colorful and rare plants are again beginning to make an appearance. Large quantities of rose gentians grow in this area, as well as the brilliant cardinal-flower and the great blue lobelia. The woodcock builds its nest adjacent to the Exit 22 Interchange.

By 1965 nearly 1,000 acres in Grande Mere had been purchased by three out-of-state land developers. Sandmining seemed to be the fate of the beautiful Grande Mere Dunes. THEN CAME APRIL 1965 (see pages 63-97).

The Day of the Passenger Pigeon

Hatch's Woods was the area along the side of the hill lying between I-94 and what is now known as Red Arrow Highway; and from just north of John Beers Road to Grande Vista on the Red Arrow. It is all rolling terrain and not too many people are aware of its ecological significance. It is almost inaccessible now because of private ownership and isolation by I-94. Before I-94 was constructed, there was an abundance of towering oak trees which extended westward meeting beech and maple.

Hatch's Woods, because of these tall trees, was excellent habitat for huge flocks of Passenger Pigeons migrating from their southerly wintering grounds. The birds had probably been coming to Grande Mere for a thousand years. Each spring would see the recurrence of this awesome sight when for a full day the sky would be blackened by the great flocks. The Indians witnessed many millions at times and would harvest some in their primitive way and dry them for winter food or render them for fat. The numbers of the beautiful pigeons were so great that their wings made the sound of a thunderstorm as they alighted in the great oaks and beeches.

These pigeons, unlike many other birds, paired for life. Soon after courting and nest-building two eggs would be laid, and the male and female would alternate sitting on them until the tiny squabs were hatched. Their nests were crudely constructed in every possible spot on branches and in the forks of the great trees. The adults, in search of food, would travel great distances — as far as 50 miles or more. They would eat seeds, such as grain or acorns, insects, and grubs, storing them temporarily in their crops for mixing with "pigeon milk" and later regurgitation into the mouths of the young.

Because of the great quantities of insects eaten by the Passenger Pigeons, Indians and oldtimers held them in high esteem — they literally eliminated insect pests.

The Passenger Pigeon has been described as a very timid bird that existed in the eastern part of North America in countless numbers,

but owing to the activities of ruthless market-hunters, it is now extinct. The passengers were beautiful rose-gray creatures, about 15 inches long with delicately tinted plumage, small heads, and long tails and wings, making them the aristocrats among pigeons.

Sometime, somewhere, the white man acquired the yen for breast of pigeon or squab, a real delicacy served in fancy restaurants in New York, Boston, Philadelphia, and Chicago. The killing of these beautiful birds became not only a pastime, but a full-time commercial operation for professional hunters.

By the 1800's, professional pigeoneers came by the hundreds, snaring thousands of birds from salt- and grain-baited wet areas. They brought them down with shotguns and were heard to complain when they didn't bag at least a half dozen birds with one shot. They clubbed them until the huge flocks would be decimated and many of the young were left to die in or drop from their nests.

Dressed out, the pigeons were sent in large barrels from Stevensville to Chicago or New York where they sold for 50¢ a dozen when plentiful but finally the price reached 10¢ each — the equivalent of an hour's pay in those days.

The same slaughter was going on all over the country, so that by the time citizens became concerned at their dwindling numbers, it was too late. The annihilation of this particular species was complete — by about 1900 none could be found in Grande Mere or anywhere else in Michigan. Some flocks retreated to remote areas such as the Okefenokee Swamp in Georgia or in strange cliffs in the sides of mountains ineffectively fleeing the market-hunters and their guns and clubs.

Insects returned to the area. All too late, man lamented the loss of the Passenger Pigeon — a species which had existed for thousands of years vanished within 50 years.

Memorabilia by Juniata Cupp

The Cranberry Bog

Before the turn of the century, cranberry cultivation was big business in Grande Mere. South Lake was devoted exclusively to the cultivation of cranberries for distribution throughout the midwest. Hundreds of pounds of the delicious fruit were shipped from Stevensville each fall to markets in Chicago and other cities. Local people stocked their cellars with crocks filled with the berries immersed in cold water for use throughout the season. There was no need to preserve them in any other way.

Cranberries are creeping shrubs rooted in floating mats of sphagnum moss in the bog. At times they would be overgrown with brambles from the summer's crop of wild roses which would have to be cleared away to accommodate new cranberry plantings in the fall. Preparation for winter began with damming the stream feeding South Lake in order to flood the bog before it became frozen. After the ice was solid, wheelbarrows of sand were hauled from the nearby dunes across the old wagon trail, now Wishart Road. The sand was distributed fairly evenly as top-dressing, and as spring thaws came it would work its way down to the roots, thus reconditioning the marsh.

No one remembers the exact ownership at the time, but a Mr. Rich of Chicago was the manager of the Cranberry Bog. Neither does anyone seem to remember when the old original wooden dam was built in later years but it must have been back around the turn of the century. Remnants of the old bridge and the concrete dam can still be found. The marsh level was easily controlled for winter protection, which was of vital importance for a good crop of berries. As recently as 1950, however, cranberries were found in abundance growing wild without any special protection.

During the height of the cranberry harvest in the years of 1900 to 1912, nearly 500 people could be found picking cranberries, moving slowly across the bog in a kneeling position, in long unbroken lines. Strict foremen would supervise the operation and at the sight of a few overlooked berries would tap the picker on the shoulder with a cane,



ordering him back to correct the oversight. Pickers were not allowed to take leads or pull away from their neighbors, thereby retaining a line that was truly a sight not easily forgotten. Standard measure containers or grape baskets were used and many would "dish-in" the sides of the baskets in order to reduce the measure, because pickers were paid for baskets that appeared full. The baskets were then dumped into ventilated crates and transported to Stevensville by horse and wagon. For working on the marsh, the horses were shod with a special set of demountable wooden muck-shoes to prevent bogging down.

At Stevensville the crates were stored in Purcell's Drug Store building, which was a two-story frame structure standing at the corner of John Beers Road and the present St. Joseph Street, across from the bank. Local men were employed at this location, manually operating a fanning machine to blow out the stems and leaves before shipment. These men could earn \$1.00 per day while the pickers, who were mostly women and children, could earn 75¢ to \$1.00.

The Cranberry Bog activities wound slowly to a halt around 1912 when other states started to cultivate cranberries in a more convenient and economical manner.

Waverland Beach As told by Marilyn Walker

The site of the Grande Mere Nature Study Preserve was once the Fox-Lind subdivision of Lincoln Township. It was founded by James A. Fox, a real estate broker, and Frederick Lindquist, an architect. The Chicagoans found the area around 1908 and subsequently built beach-front homes, some of which still can be seen today. The subdivision comprised over 60 acres. The Preserve today looks as it did in 1910 when man's last intrusion upon the wilderness was to bisect the area with a road for easier access to the beach-front homes. The name Fox-Lind was changed to Waverland Beach, condensed from Wave Over Land.

Fox was the son of a captain in the British Army during the reign of Queen Victoria and later enlivened many a Waverland Beach bonfire party with stories of his early youth in faraway India.

Lindquist had a natural love for the sea, having been born in Stockholm, Sweden. He was a young man when he arrived in this country and settled in Chicago, where he pursued his education and subsequent career in architecture. He was the son of a professional engineer. Many a happy memory has been evoked from his family about the times, around 1911, when he would go on the beach shaking his fist or sometimes waving a gun at the "sandsuckers" yelling, "You're ruining my beach — get away from here!" Lindquist became an early conservationist because of the "sandsuckers" — barges with derricks attached to them taking sand from the bottom of the lake for shipment to various foundries in other states. He continued his vigilance through the years until the sandmining in the lake finally stopped.

Childhood memories grew into happy adult memories for the Lindquist and Fox families as a few more homes were built and the lure of Waverland Beach called family and friends to the great outdoors. Time marched on and the young adults began their own families, subsequently taking them to Waverland Beach to be with grandfather and grandmother for the summer. Some came hundreds of miles to savor the front yard beach and the blueberry picking in the forest. The seeds of love for Waverland Beach were implanted in the young and now they in turn are teaching their children the saga of Waverland Beach for their entertainment as well as for the lessons it teaches, thanks to the Grande Mere Nature Study Preserve.



Ice cutting at the turn of the century.



North Lake activities—1973



Ice cutting at the turn of the century.

Ice Cutting

In the days before refrigeration, housewives, ice cream companies, butcher shops, and fresh-produce markets depended entirely on stored ice put in specially constructed ice houses. The typical icehouse was a spacious, partitionless room generally built with extra-thick walls well insulated with sawdust.

From the turn of the century and up into the twenties, putting up ice was an annual event at Dunham's Icehouse, located on North Lake. Much preparation for this undertaking was necessary. The repairing of the ramp, or escalator, was of the utmost importance because the entire crew depended on the ramp for a continuous operation. Up to 50 local workmen were hired and each man was assigned to a specific job.

First, surface snow was cleared with a horse-drawn snowplow. Then came a sharp-shod horse pulling a plow-type ice saw — a special, heavy, single sawblade about 6 feet long, guided by typical plow handles — which scored or cut the surface in long strips to a desired depth depending upon the thickness of the ice. These long strips were then cut crosswise to the regular block dimension. Next, hand saws were used to cut out a couple of long strips which were then taken out of the water. This opened up a long channel leading to the ramp into the icehouse. A workman with a "spud" separated the long floating blocks, at the same time guiding them with a long pike pole toward the ramp. A row of blocks was then pulled up the ramp by a hook, rope, and pulley by a team of horses near the icehouse. As the blocks entered the house, they were guided into position by long pike poles until every available bit of space was utilized. The upper and last layer was covered with a heavy application of sawdust for final insulation. The cakes of ice were not disturbed until summer when they were distributed to local consumers.

Stories and Folklore

Ray McClure of the South Bend, Indiana, *Tribune* writes that "old-timers around the Grand Mere Area say that on any summer evening when the wind naps out on the lake, you can hear the oars of a canoe splash rhythmically toward Waverland Beach. They relate that if you are a brave soul and follow the sound you will see an Indian pull a canoe up on the sand and disappear over the ridge toward Brinkman Dune.

"This is one of the many stories of Grande Mere. Like all unique areas, Grande Mere has its colorful history, but as in all colorful history there is some fiction. Undeniably, Grande Mere is mysterious, lonely, and beautiful in a raw and rugged way. To area residents, Grande Mere is basically a feeling — a sensation — and because it is, it kindles the imagination into a blaze of sight and sound that has sometimes turned history into folklore and folklore into a tall tale.

"The story is told that on a certain fall evening when the breeze softly slides across South Lake you can hear a chorus singing in the marshes. Or how on a February night when the wind screams across Wilkins Dune, you can hear the sound of sawing out on North Lake.

"It is a mixture of history and folklore, combined with a wild beauty, that prompted a long effort to preserve the Grande Mere Dunes in their original state — to keep safe the nesting place of many species of birds, and an untrampled garden for hundreds of wild flowers. In his writings, Dr. Alton A. Lindsey of Purdue University and President of the Indiana Academy of Sciences states, "This Grande Mere Area is a remarkable duneland. We consider this area is much more valuable for a park and nature preserve than for commonplace one-shot commercial use. It is within my professional field as an ecologist to judge the quality of lands from the former viewpoint. I am personally very familiar with Grande Mere and can vouch for the great importance of saving this exceptionally fine tract for the highest public uses in perpetuity.

"And so does the lonely Indian just after dusk on a summer evening when the wind naps out on the lake."

Although Grande Mere has been referred to as mysterious and lonely, it is not like Gene Stratton Porter's "Limberlost" — a swamp and quagmire in Indiana which was supposed literally to suck down into its depths any unwary individual. As far as anyone can recall, none of

the three inland lakes of Grande Mere has ever claimed a life.

There is the story told, however, about the gentleman who, in an attempt to gain recognition and publicity, tried to cross Lake Michigan in a most unusual manner. He had rigged an elaborate waterproofed encasement resembling a hugh canvas football or cocoon. Through the center of this odd contraption he had secured a long 2-inch pipe from which hung a chair-like hammock. Placing himself upon this hammock and sealing himself in, he set about to cross the lake by means of strong westerly winds. Had he tried this venture during the summer, the story would not have had such a sad ending but he chose to embark from Chicago in the cold days of November. On a bitterly cold day toward the end of that month, a Mrs. Koehler, who lived in Grande Mere, was walking along the beach near the North Lake outlet in search of driftwood for her heating stove when she came upon the frozen body of the hapless adventurer. Notifying the authorities of her find was not a small chore, for it was in 1905 when telephones were few and far between. Eventually, however, the body and his "foolkiller," as the townpeople called it, were brought by horse and wagon by a man known as "Jap" Wall to the Town Hall. There the body was placed on an old work bench alongside his contraption for all the population of Stevensville to view for several days before relatives from Illinois arrived to claim the body. There were those who conjectured that he would have made it to the beach and survived had he not been snagged by one of the old piers out in Lake Michigan near Dunham's abandoned sawmill. It is believed that it was at this point that his "coffin" began to take in water and the struggle began; finally emerging from it he was barely able to crawl to the beach and, because of the freezing weather, was unable to go further. His body was found just north of the outlet where the dam now stands.

A box was found inside the "cocoon" hanging from the 2-inch iron pipe. It contained his source of food — a few bits of hard candy. It was later learned that he had said that if he made this trip successfully he would try it over Niagara Falls.

Another twice-told tale is the legend of the horse-thief who was hanged in Holmes' Hole. Holmes' Hole was a deep blow-out of dunes west of Middle Lake, several hundred feet from Lake Michigan. It sometimes filled with water and was a good hide-out area for those fleeing from the law and where one of them met his "Waterloo."

Louis P. Ueck tells the following story.

How well I remember the last towering tree I helped to cut down in Grande Mere! It was a beautiful specimen — a 60-foot, straight whitewood or tulip tree — and it was to be used for the ice game of Flying Dutchman.

Few remember this sort of recreation, I dare say, and I would like to tell you about it. We would sink a 6-foot cedar post in Middle Lake to about 4 feet above the ice surface. The post would be allowed to freeze firmly into place and would support the long white-wood pole later. Into the top of this sunken post we would drive a 12-inch iron bolt to form an axle. This axle post was to support the longest possible pole this frozen area could handle.

When the Dunham's gave up the business of ice cutting in Grande Mere, Frank Mielke took it up and it was from him I had to obtain permission to cut this huge specimen for the 60-foot pole. Stripping it of all branches, we soon made it ready for the adventure. A single hole was drilled through the butt and placed over the iron axle for our Flying Dutchman.

To the tip of the pole we fastened a specially built round-runner sled. The sled had to be well anchored at the front and the rear. The Flying Dutchman was now ready to be swung into action, manually turned



Middle Lake

by husky fellows who had previously cut notches into the ice for a foothold at the base of the pivoted post. The butt end of this long turning pole was elevated chest high, lessening the danger of falling beneath it if any did slip — the pole would pass over without injury.

No one except the pushers were allowed into the ring area. Strong boys could spin a sled around at about a hundred miles an hour (at least it seemed that fast). There were many eager to try for the never-to-be-forgotten thrill. I remember when a neighbor boy by the name of Clarence Bartz came over to our Flying Dutchman. He took plenty of time to anchor himself at the knees and at the feet, as well as his hands — all to no avail! When the rotating sled reached the centrifugal force too great for the mittened hands, it was too late to make any adjustment. It was apparent that he was slipping! The first thing we knew, Clarence was skittering across the snow half-way up the hillside on his own momentum.

OFF THE COURTHOUSE RECORD

BERRIEN COUNTY HISTORICAL COMM.

One of the place names of Berrien County mentioned in last week's column was Grand Marais (Grand Mere), that sand and marsh area near Stevensville which has been the recent battle ground of sand merchants and conservationists. The latter's interest in it is because it still is a large natural area.

On August 31, 1850, Darius Cook, one of the county's pioneer newspapermen, wrote a description of Grand Marias as it was when it was a primeval wilderness. Cook and some friends went there for a few days of hunting. The Niles editor's party was made up of four Berrien Springs men George Kimmel, C. F. Howe, Julius Brown and Jim Watson and a Chicago man named Deniston.

"Our load," he wrote, "consisted of one tent, buffalo robes and blankets, axes, pots and tea kettles, potatoes, bread, crackers and cheese. pork, 'pakles', etc., etc., sufficient for a ten day campaign for six men, two horses and three dogs besides two full bottles of medicine for the sick and afflicted.

"At 4 p.m. the sound of our voices echoed among the sand hills of the Grand Marais pitching our tent and it should be borne in mind that this is the greatest deer and bear country in all North America and, in the way of variety, an array of ravens, turkey buzzards and crows

which throng the beach feeding upon the numerous dead deer that float lifeless to the shore having been driven into the lake by wolves."

Cook's article is full of typical hunters' dialogue, practical jokes and exaggerated shooting performances, but his description of the area is that of true wilderness.

"Pursuing an easterly course, we came to what is properly named 'the Devil's Hole', said to be impassable for men or beast at this season of the year. Either this must be crossed or we must round it some miles.

"Who dare cross this?" said Capt. Howes.

'We dare follow you", was the answer.

No quicker said than the lead was struck. The high grass, the dense thicket of the briary bushes, the high bogs, the small deep pools of water and the fallen tamarack rendered it the most difficult place to enter imaginable. Penetrating to its center, we found a miary, sluggish stream. Here a bridge was necessary which was soon built of fallen tamaracks. This over, our passage seemed even more difficult, but after more than an hour's hard struggle with briars, brambles, grass, bogs and water, we reached an im-mense cedar swamp and might have been seen upon a log resting our weary limbs and wringing our stockings



while ten thousand 'galleynippers' or musketoes, so old they have become bald headed, were sticking their halfinch bills into our veins. A specimen of these musketoes we carefully preserved for Griswold's museum.

"This cedar swamp is quite extensive and would be of immense value were it near civilization. It may be easily approached on the ice and over the marais in the winter. The cedar stands very thick and many trees are over two feet through. Those who feet through. Those who understand it have a road on the backside and it is, indeed, found by a few to be a good place to cabbage cedar which is used to good advantage in vessels."

In 1867 civilization reached this little pocket of wilderness when a saw mill began cutting the timber which was shipped by schooners loaded at a pier built nearby into Lake Michigan.

The bear, wolves and ravens and the big trees are gone, but the three lakes of Grand Mere still mark the place the French called the "Big Marsh" and where Cook swatted the big "Musketoes".

Recipes for Herbs and Teas

Grande Mere is the habitat of many plants that were once used for medicinal purposes or in cooking purely for the enjoyment of eating. Some of the following uses and recipes may prove not only interesting historically but perhaps somewhat humorous.

One is for the tea Grandmother always made in the springtime — sassafras tea, an all-around cure-all.

Sassafras Tea (Sassafras albidum)

A teaspoonful of the bark of the root, cut very small or granulated, to a cup of boiling water. May be drunk either hot or cold. Sugar added if desired. Some boil the scraped bark until the water becomes a bright orange-red tea. It is supposed to thin the blood.

May-apple or Mandrake (Podophyllum peltatum) Cathartic

A teaspoonful of the root, cut small, to a pint of boiling water. Take one teaspoonful at a time as required.

Bittersweet (Solanum dulcamara) for Skin Irritation

Two teaspoonfuls of the root to a pint of boiling water. Drink cold, 2 or 3 tablespoonfuls 6 times a day.

Rattlesnake Plantain (Goodyeara pubescens)

The fresh leaves are steeped in milk and applied as a poultice to bruises, bites of insects and skin irritations. The leaves may be used whole if preferred.

Coltsfoot (Tussilago farfara)

Petals were used as a remedy for sore throats and mouth ulcers for the peasant class. Violet petals dried and made into syrup were used for the same purpose by the gentry.

Catnip (Nepeta cataria) was used for tea by the early settlers and the Indians believed it induced sound sleep.

Rue (Thalictrum) was thought by the Greeks and Romans to protect them from diseases and over the ages this herb has become symbolic of repentance.

Wood Avens (Geum)

The bitter juice of the long, black, woody root was excellent for stomachache.



Adder's Tongue (Erythronium americanum)

The fresh leaves can be crushed and used as a poultice.

European Alder (Alnus glutinosa)

The bark and leaves may be used as an astringent.

Aloe (Agave americana) may be used as a diuretic.

Bloodroot (Sanguinaria canadensis) stimulates the digestive organs.

Flowering Dogwood (Cornus florida)

Leaves are excellent for purging.

Queen Anne's Lace (Daucus carota)

Roots and seeds may be used as a stimulant and diuretic.

Candytuft (Iberis amora)

The whole plant was used by the ancients for gout and rheumatism, and is now used for spasms of asthma and bronchial irritation.

Chicory (Chicorum intybus)

Tea made from roots is good for sour stomach. In some areas it is still used as a coffee substitute.

Indian Pipe (Monotropa uniflora)

Roots may be used as a tonic, and when mixed with fennel seed, make an excellent eyewash.

Nightshade (Solanum americanum)

Leaves are somewhat narcotic and sedative.

Gentian (Gentiana lutea)

Roots make a tonic for improving the appetite and promoting digestion.

Angelica (Angelica atropurpurea) is said to protect from harm those who use it. The leaves, blossoms, and stems steeped in boiling water make a tea for a stimulant, heartburn, and colic.

Wake Robin (Trillium recurvatum)

Roots may be used for an astringent or poultice for insect stings.



Milkweed (Apocynum androsaemifolium)

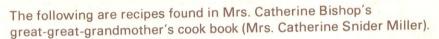
Roots make a tonic and laxative.

Ladyslipper (Cypripedium pubescens)

Plant is used for a tonic and gentle nerve stimulant, and is beneficial for ordinary nervous headaches.

Pennyroyal (Hedeoma pulegiodes) serves as a gentle stimulant.

Fennel (Foeniculum vulgare) was considered by wise men of old to be one of the nine sacred herbs that were thought to counteract the nine causes of disease. Greek mythology tells us that the knowledge of fennel came to man as a coal of fire in a stalk of fennel, directly from Mount Olympus. An old legend mentioned in Shakespeare says that he who eats fennel will enjoy clear vision.



Cancer Syrup

Burdock ½ pound Sasparilla ½ pound Dandelion ½ pound Yellow dock (narrow leaf) ½ pound

Pound fine, put in a tin pan, add 5 quarts of water, boil down to 2 quarts, strain it and add $\frac{1}{2}$ pound loaf sugar and $\frac{1}{2}$ pint Holland gin or best whyskey. Dose: one Tablespoon before meals three times a day. If your roots are green, take $\frac{3}{4}$ pound of each.

Cough Syrup

1 oz. horehound

1 oz. elecampane

1 oz. skunk cabbage

1 oz. spikenard

1 oz. dandelion

1 oz. comfrey

1 oz. licorice stick

Boil in 5 quarts of water down to one quart. Add one pound of loaf sugar, one pint molasses, one pint brandy or whyskey. Cork and keep in a cool place.



Worm Medicine

1 quart of liquor

1 ounce aloes

1 ounce oil of juniper

1 ounce oil of anice

a little asafetida

Linament

1 oz. oil of wormwood

1/2 oz. oil of Organum

1/2 oz. oil of white cedar

1/2 oz. oil of amber rectified

½ oz. oil of hemlock

1/2 oz. oil of Balsam fir

1 pint alcohol

Cough Syrup

Take one handful of wild cherry tree bark, one of dogwood bark, one of white wood bark, one of comfrey root, and one of spignut root. Poot it in two quarts of water and boil down to one quart. Add ¼ pound of loaf sugar, one gill of brandy, and a little saltpeter. Dose: one teaspoonful three times a day as a stomack will bare.

Linament

Take of olive oil, 2 oz.; oil or oreganum, 1 oz.; camphor gum, 1 oz.; Age ammonia, 1 oz. Shake well together.



Chronological Record of Attempt to Save Grande Mere

April 1965 to April 1973

Assemble 1,200 Acres For Factories

A major assemblage of a substantial land area for sizeable industrial and commercial development has been put together in the Grande Mere section of Lincoln township.

The property includes some 1,200 acres lying between I-94 and the Lake Michigan shoreline and running two miles from the freeway's John Beers road intersection south two miles to Linco road. Linco road is the dividing line between Lincoln and Lake townships.

Immediately beyond is a 500-acre parcel which the the Indiana & Michigan Electric company started to acquire quitely 10 years ago as the site of a generator plant.

Harry Gast, Jr., Lincoln township supervisor, plans to outline the Grande Mere development tonight to a meeting of the Lake-shore Chamber of Commerce at Snowflake motel.

Active in marshalling part of the acreage has been Bun Baldwin, Bridgman realtor, working as purchase agent for one of the three partners in the enterprise.

His clients are Manley Brothers, headquartered at Chesterton, Ind. Members of this partnership are Russell Manley and a South Bend, Ind., businessman, Fred Davis.

Another part of the Manley interests is the Manley Sand company, a subsidiary of the American-Marietta corporation, which operates a large sand processing plant north of Bridgman. The product is sold primarily to foundries.

The other two partners in the promotion are Victor Peters, a Chicago attorney, and Philip Shapero, just recently made a circuit judge in the Cook county (Chicago) court system.

Baldwin is expected to represent the three members as their property to industrial and business prospects once the syndicate has completed its development preliminaries.

This development

vides into four principal steps:
1. Rezoning the area from its present residential status to industrial. Unless neighborhood objections should pose unforeseen problems, this is regarded as a formality. The Lincoln township board members already have expressed full accord on the project.

2. Bringing a railroad spur line into the area. This calls for I&M cooperation because of the location of its future plant site and its adjacency to the C&O's main track lines. In effect, the quicker the I&M moves on its generator plans the faster the Grand Mere complex becomes a reality.

3. Dredging, grading and otherwise changing a wilderness into useable space. contains two of the three Grand Mere lakes, a bog and a dune bridge.

4. A water supply in sizeable volume. This requirement is a part of the thinking which has gone into the Lake Michigan Shoreline Water Authority proposal to be voted upon May

A special meeting Friday afternoon between the Lincoln board, Baldwin, Davis, C&O agents, an I&M right of way agent, and Harris K. Miller, from the Michigan Department of Economic Expansion roughed out an outline for the area's development.

This meeting suggested a commercial section, including a marina possibility, and an industrial park with a minimum individual sale of 30 acres for plant purposes. Should there be any "left over" space, this could go for housing purposes.

Grande Mere, French for "large lake," is a term descriptive of any of the five Great Lakes and the origin of whom applied it to the shoreline area from Bridgman to Stevensville has long been lost.

Early settlers timbered it and some eked out a living in farming parts of it, but through most of its area and to most local people it has been an unofficial wildlife preserve; and if it is converted to civilized processes, the best duck and small game hunting ground in the vicinity will become just a memory.

Its present unproductive state to the contrary, the price for its land sustains the thinking of people as to values of shoreline property.

The revenue stamps on the deeds picked up by Baldwin for his clients show acreage prices ranging from \$1,100 to \$2,500.

The total acreage divides approximately '375 to Judge Shapero, 500 to Atty. Peters and 325 to Manley Brothers.
Peters' holding comes out of

what in the 1920s was known as Stevensville Syndicate No. 1 and

This was a group of Chicagoans who bought the property with the thought of subdividing it for luxury homesites.

The 1930 depression stifled that thought and sent most of the syndicate members through the financial wringer; and as some were unable to pay their ownership assessments, those more fortunate took up their shares.

Two of those survivors, now deceased, were related to Bishop Fulton J. Sheen, the Catholic clergyman noted for his radio and TV lectures. They were Arthur W. Fulton, a brother-in-law, and Joseph J. Sheen, a nephew, both lawyers in ChiThis newspaper article left many readers with mixed emotions. Those who were aware of the ecological significance of Grande Mere were stunned. Almost overnight, interested persons came forth and a meeting was called on April 30 where it was decided to invite naturalists to visit the area for the purpose of making an ecological appraisal.

1965

MAY 12. A meeting is held by Lincoln Township where "plans" for Grande Mere are revealed. Newspaper headlines read:

GRANDE MERE BATTLE LINES DRAWN Industrial Use Advantage Told

Will the Grande Mere area of Lincoln Township become a site of industrial, commercial and recreational facilities or will it remain a preserve for the birds and animals of the area?

The 100 persons who attended the presentation of possible utilization of the Grande Mere area were divided into two camps . . .

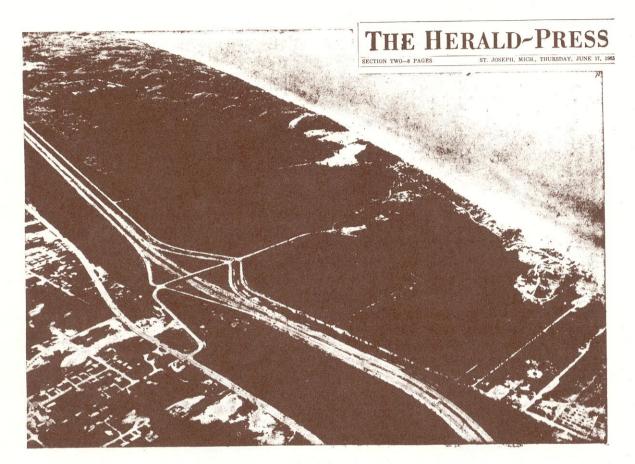
MAY 13. Those from the "neighborhood" and other conservationists get together and decide to form an organization to "Save Grande Mere"! Officers are elected, by-laws adopted, and the crusade is started. Public meetings are held and people from all walks of life and all parts of Michigan respond. Soon several hundred dues-paying members form the backbone of what is now known as the Grande Mere Association.

Reams of printed material begin to appear in newspapers, including the *Chicago Tribune* and the *Detroit Free Press*. Writers dig out old historical facts for interesting reading about Grande Mere. College professors in Michigan, Indiana, and Illinois begin writing articles extolling the natural virtues of Grande Mere. The first public hike through Grande Mere is conducted on a very cool Sunday afternoon by Gene Morgan, Biology Instructor at Lake Michigan College, Dr. Asa Thoresen, head of the Biology Department of Andrews University at Berrien Springs, and Dr. William Ashbey of Southern Illinois University.





GRAND MERE GUIDES: Group of experts in widths will be among who will conduct hike through Grand Reve Souday. They are from let William C. Ashby, professor, Southers Hillands University; Dr. Asa Ti head of the biology department at Andrews University, Earries Dyring John Caomus, Chicago: Charles Withowske, Benton Harbor High sch dent, and Richard Rambur, Lekshey, Hais, and the Bright Rambur, Lekshey, Hais, and the Revent Harbor High sch



Grande Mere Long Target Of Developers

Grande Mere has long been the target of developers.

In the early part of the 20th century S. Ella Dunham, proprietor of Grande Mere park, wrote a descriptive and historical sketch describing that part of the development lying between Stevensville and Lake

Michigan.

The name Grande Mere has been spelled in various ways but some historians believe the "Grande" is French for great and mere would mean mother which was handed down from the Indians who populate and considered in the second of the second property of the second prop

especially the wilderness along the lake as their mother lode the source of their food and

It's translation would be "Great Mother" but other historians believe it simply to be "great sea" with the sand dunes overlooking the great sea that is Lake

The Berrien County Audubon society has focused considerable interest on the Grande Mere area after it was announced developers have their eye on it as the site for light industry and recreational and resort fa-

The account of the park by

a sketch of a platted portion which lists "Pier avenue, Grande Mere street, Lake street, Pine street, Peach street, Ice street and Orchard street. The account of the park and

lows:

The Dunham estate was originally purchased by T. W. Dunham in 1885. It then consiste of 1,100 acres of thickly wood ed lands. Forests of white pine covered the dry ground white the swamps were dense with cedar and tamarack and in the marshes flourished wild grass.

In those early days the place

while these native products were harvested. A saw-mill was constructed, corduroy roads and car tracks were laid, a pier was built into the lake and a scow, called the M. N. Dunham, was made and launched at the pier.

Since then a great change has come over the landscape. Gone are almost all trace of those monarchs of the forest. The swamps and marl beds are now but pleasant evergreen parks. The
eranberry marsh has been
sommercialized and what
has not home foreken we into

AUGUST 12. Newspapers read:

ALL AGREE — GRANDE MERE IS EXCEPTIONAL

The Lincoln Township Board, caught in the no-man's land between conservationists and commercial developers of Grande Mere has received a professional planner's report to help guide

future decisions.

The ink was hardly dry on the 45-page report when it came under attack by the Grande Mere Association. The Association is sponsoring a meeting for 7:30 P.M. Saturday at Lakeshore High School at which time four speakers will explore various aspects of conservation in general and the Grande Mere Area in particular . . .

AUGUST 14. A capacity audience listens to:

"History of Grande Mere"

Dr. Charles Olmsted

Chairman

Department of Botany University of Chicago

"Grande Mere Today — The Crossroads" Dr. H. Lewis Batts, Jr.

Executive Director Kalamazoo Nature Center

"Regional Planning and Grande Mere"

Donald McGrath, Architect St. Joseph, Michigan Member, Lake Michigan Region Planning Council

"Don't Put An Iron Curtain Along Our Lakeshore"

Herbert Read, Architect Chesterton, Indiana Member, Lake Michigan Region Planning Council and Save the Dunes, Inc. The Grande Mere Association had sent a letter to Washington inviting dignitaries to attend this meeting and was in receipt of the following telegram from the Secretary of the Interior, Stewart L. Udall:

WE SHARE WITH YOUR ASSOCIATION CONCERN RE: POSSIBLE LOSS OF THIS IMPORTANT SCENIC AND RECREATION SOURCE. RECREATION AND SCENIC VALUES OF GRANDE MERE — LAKE MICHIGAN DUNES HAVE BEEN RECOGNIZED FOR MANY YEARS. URGENT NEED TO PRESERVE SUCH OUTSTANDING SCENIC RESOURCES IN YOUR HIGHLY POPULATED REGION IS WELL ILLUSTRATED IN PRESENT EFFORT TO PRESERVE THE INDIANA DUNES TO THE SOUTH OF GRANDE MERE DUNES. WE AGREE THAT AN ADEQUATE STUDY OF THE SCENIC, SCIENTIFIC AND RECREATIONAL-VALUE OF THE GRANDE MERE DUNES SHOULD BE COMPLETED BEFORE ACTION IS TAKEN TO REZONE THIS AREA FOR INDUSTRIAL PURPOSES. I COMMEND YOUR DESIRE FOR LONG RANGE TOWNSHIP AND COUNTY PLANNING. SUCH PLANNING CAN PREVENT IRREVERSIBLE ACTIONS WHICH MAY BE REGRETTED BY FUTURE GENERATIONS.

SEPTEMBER 1.

The long newspaper article that led the Grande Mere Association into thinking of obtaining state assistance:

COULD BUY LAND FOR \$500,000 Conservation Group Hopes for Millage Vote.

Grande Mere's Dunes . . . wooded trails . . . good waterfowl and small game hunting . . . lonely beaches . . . unique plant life and myriad wild birds can be saved by Berrien County voters if they are willing to pay \$500,000 it will cost to purchase the land from its present owners. Paul Armbruster, Chairman of the

Grande Mere Association said the 1,200-acre wilderness gem has a market value of \$1 million and that federal legislation makes it possible for a county to acquire land by purchase or condemnation with the Federal Government paying 50% of the acquisition costs through the Land and Conservation Fund . . .

SEPTEMBER 28. It becomes obvious that the Chamber of Commerce endorses the rezoning of Grande Mere for commercialization. A meeting and debate between conservationists and commercialists points out the wide difference of opinion. The battle is, by this time, in full armor. Bumper stickers saying "SAVE GRANDE MERE" begin to appear on automobiles throughout the area.

NOVEMBER 18. An editorial in *The News Palladium* written by the late Stanley R. Banyon:

Unique Grand Mere Should Be Preserved

Today brings forth a new chapter in the fight to save the scenic beauty and wonder of Stevensville's Grand Mere area from commercial development. Paul Armbruster, chariman of the Grand Mere Association, says that \$1,000,000 — half from the U.S., half from local sources — can save this dunes tract on the shore of Lake Michigan.

It's too early to tell whether this new approach is practical. It seems to depend on determination of actual land costs and public reaction.

But, certainly, there should be some way to preserve the unique attraction of Grand Mere for future generations.

Every 24 hours America loses over 3,000 acres of natural land to development. This amounts to about one million acres a year going into such things as urban expansion, housing subdivisions, shopping centers, highways and 60 on.

Fewer and fewer children today have the benefit of firsthand, intimate experience with the wonders and beauties of land in its natural and unexploited state.

The Twin Cities have already

lost many of the dunes for which they once were famed. Highways and parking knocked out Jean Klock Park dunes dear to the heart of childhood only 20 to 30 years ago.

Geologists and botanists have described Grand Mere as a unique natural wonder of the world. It holds myriads of animal and plant life. Once gone, its lakes, dunes and marshes could never be replaced.

The private owners of the land in question cannot be expected to hand over title without just compensation. A first step in any successful effort to save the dunes must begin with determination of a fair price.

Less consideration can be given to the drive by some local officials to commercialize Grand Mere for the economic benefit to surrounding property. There is plenty of other property in the vicinity, property not possessing the unique natural characteristics of Grand Mere.

The entire state, even the whole nation, has an interest in preserving areas like Grand Mere. The Grand Mere Association deserves support from far and wide in its efforts to save a bit of Nature for generations yet unborn.

Area THE HERALD-PRESS

ST. JOSEPH, MICH., THURSDAY, NOVEMBER 18, 1965

Section

COUNTY CAN SAVE GRAND MERE'S BEAUTY



THE LAND AND THE SRA meet here at Grand Mere in timeless solitude.

A long stretch of the dunes area fronting on Lake Michigan remains unin-



During this interval there is much dialogue concerning the rezoning of Grande Mere but the Township Board has not yet received a formal request for rezoning by the owners. Sandmining is still being carried on on Wishart Road in Grande Mere, although on a limited scale. The Grande Mere Association protests this activity to the Township Board. Nothing much can be done inasmuch as there is no sandmining ordinance in force. Immediately, the Grande Mere Association starts to work toward ordinances to control further strip mining. The Township Attorney is asked to work on such an ordinance. The first time many people hear of the word "ecology" is when it appears in the local papers in "Letters to the Editor" in relation to the need to save Grande Mere.

NOVEMBER 22. The State becomes interested in Grande Mere. Three officials tour the area, including Freshman Representative Floyd Mattheeussen (D) of Benton Harbor; Norman Smith, Chief of the Michigan Department of Conservation's Recreation Resource Planning Division; and Jim Wickes, a staff member of the Planning Division. Smith said, "The Conservation Department has been interested in the Grande Mere area for more than thirty years but the price asked has always been more than we can afford."

At this point Rep. Mattheeussen starts to promote legislation toward obtaining \$500,000 for the purchase of Grande Mere.

DECEMBER 13. Commercialists request rezoning the Grande Mere Area for industrial and commercial application.

An application to change the zoning of a large portion of the Grande Mere Area from residential to industrial and commercial has been presented to the Lincoln Township Planning Commission.

The application is signed by Russell E. Manley, Fred N. Davis, Victor S. Peters and Mildred Peters, property owners. Property owned by the Grand Marais Corporation in the Grande Mere Area is not included in the rezoning request.

DECEMBER 16. The first organization to endorse the purpose of the Grande Mere Association is the St. Joseph Valley Audubon Society. Garden clubs and other groups are taking up the banner. The Indian Hills Garden Club sends \$1,000 to further the cause.



1966 JANUARY 6.

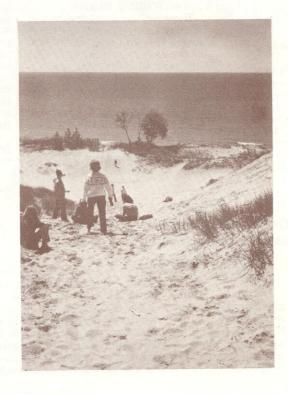
GROUP PROTEST REMOVAL OF SAND AT GRAND MERE

Members of the Grande Mere Association plan to gather in force at the Lincoln Township Hall to protest to the Township Planning Commission the removal of sand from Grande Mere by one of the land owners of that 1,200-acre wilderness tract. The Manley Sand Company last week started removing sand with bulldozers and is trucking it to its processing plant at Bridgman. The firm has cleared trees from 30 acres of dunes at the southern end of the area.

FEBRUARY 17. A public hearing is held and the sandmining ordinance is discussed at great length. Very little action is taken.

FEBRUARY 28. Headlines in The Detroit Free Press:

BILL WILL URGE CREATION OF THE GRANDE MERE DUNES PARK. SEEKS TO PROTECT NATURE REFUGE Benton Harbor — Rep. Floyd Mattheeussen (D) said that this week he will introduce a bill asking for a special appropriation to buy the 1,200-acre Grande Mere Sand Dunes near Stevensville for a State Park.



MARCH 3. The State of Michigan places a million-dollar price on Grande Mere.

MARCH 4.

BRIEF HEARING HELD ON GRANDE MERE CONTROVERSY ... WILL BE CONTINUED MARCH 24 . . . LAWYERS NOT YET READY WITH PLANS

Lawyers Not Yet Ready With Plans

By CHET NEWMAN Staff Writer

STEVENSVILLE — Two proposed amendments to Lincoln township's zoning ordinance received only brief hearings Thursday night when the township planning commission was told attorneys were not ready to make their work public.

The hearing was continued to 8 p.m. March 24, again in the township hall in Stevensville.

Attorneys representing three groups involved in the Grand Mere controversy said they had worked on the "sand ordinance" and "planned development district" documents. However, they agreed their work was not ready to be laid before the public.

SURPRISE MOVE

In a surprise move following tabling of the discussion, A.G. Preston Jr. of St. Joseph, representing Manley Bros., Inc., of Chesterton, Ind., asked that part of the firm's rezoning request receive the planning commission's endorsement.

Following a brief flurry of protests from the audience, Mrs. Christine Welch, commission secretary, said they could not grant the request because the rezoning application had not received full legal hearings.

The commission will consider Manley's request that part of the Grand Mere area be rezoned from residential to commercial and industrial at the March 24 meeting.

It was the rezoning application that touched off the controversy last year. Manley has already started limited sand mining operations. The firm supplies foundry sand to plants over much of the United States.

FIRM'S PLANS

However, sand mining is not Manley's only interes. A Grand Mere. The firm also wants part of the eastern side along I-94 to be rezoned industrial and a relatively small plot near the Stevensville interchange rezoned commercial.

Preston's request that part of the rezoning application be endorsed to the Lincoln township board was based on necessary haste, he told the meeting. Manley Bros. wants to begin dredging Middle Grand Mere lake in the near future or it will have to abandon the project, at least until next year. The firm's plans include development of the middle lake into a marina with man-made access to Lake Michigan.

Said one member of the audience: "It's best to let it sleep another year."

After Mrs. Welch told Prethen the commission could not ston dorse the partial-rezoning elman quest, he urged the commisspond to consider it at the Marchuch is hearing.

LAWYERS MEET id not be the commission of the commission of

Preston, Atty. John Spelsrepar and Atty. Julian Hughes set the meeting they had met toappar to iron out differences in compamendment proposals. The Husaid they would do so a mak before the March 24 meeting draf

Spelman represents the past and strength of the Grand Mere associate which was organized to the rezoning.

Spelman gave a brief 'b- the gress report' on the gro's if work, but said much remard

The Grande Mere Association is confronted with compromise proposals and publicly announces its stand:

NO COMPROMISE ON GRANDE MERE

Because Grande Mere is geologically unique and irreplaceable once defaced, this area should be preserved as nearly as possible in its natural state, and developed only slightly for recreational

and educational purposes for which the Grande Mere Area is best suited. The long-range wisdom of such a choice is apparent only when consideration is given to the fact that Lincoln Township still has over 6,000 acres of undeveloped land available.

MARCH 25.

OPTIMISTIC FOR GRANDE MERE BILL PASSAGE

APRIL 14.

GRANDE MERE BILL IS INTRODUCED IN THE HOUSE

MAY 18. Grande Mere Association sponsors the first big annual hike . . .

JUNE 15.

ONE-THIRD OF GRANDE MERE FOR INDUSTRY?

The Township Board backs the plan to rezone 400 acres to commercial but conservationists call it "foot-in-the-door to end wildlife."

THE HERALD-PRESS

Twin City News

ST. JOSEPH, MICH., WEDNESDAY, JUNE 15, 1966

ONE-THIRD OF GRAND MERE FOR INDUSTRY?



Township Board Backs Plan

Critic Calls It 'Foot-In-Door' To End Wildlife

The Lincoln township board Tuesday night endorsed a plan to turn over one-third of the Graud Mere area for industrial use, while keeping the southern two-thirds as a recreation and

In explaining its stand, the beard cited the need for an industrial tax base to support rapidly growing Lakeshore schools.

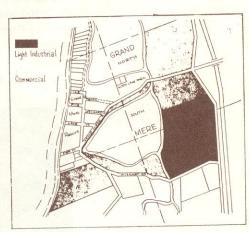
Grand Mere" campaign viewed the action as a "foot-in-thedoor" which could eventually destroy the entire wildlife retreat.

The board's action was in response to requests from landowners V.S. Peters Jr. and Manley Bros., an Indiana sandmining firm.

A request made 14 months ago for rezoning most of Grand Mere for industrial and commercial use was turned down. This was the request that started the current "Grand Mere controversy."

endersed, asks for the rezoning of the area north of Wishart road and surrounding Middle Grand Mere lake. Most of the new request is for commercial use with a smaller portion for industry.

The request was made for the land owners in a letter from their attorney, A.G. Preston J of St Joseph.



NEW GRAND MERE REZONING PLAN: Lincoln township board Tuesday night endorsed this rezoning plan of the Grand Mere area. Lower right copner of marked area would be industrial with remainder commercial, including a yacht basin in Middle Grand Mere lake. Lake Michigan is at left and 1-94 at right. All marked land is owned by Manley Bros. of Chesterton, Ind., and Victor S. Peters Jr. of Lincoln township.

JUNE 30.

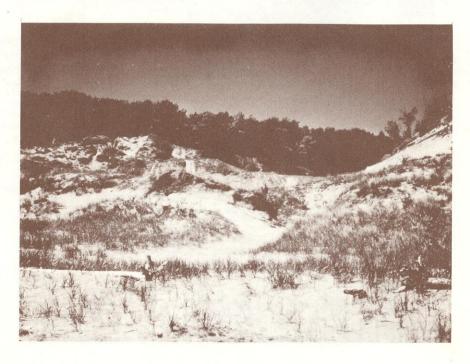
GRANDE MERE IS STILL A QUESTION. BILL PASSES BUT HAS CRIPPLING RESTRICTIONS. \$500,000 MAY NOT BE ENOUGH

The amendments state that the money has to be used within six months and that no condemnation procedures can be used, rendering it virtually useless.

1967

JANUARY 3. The Grande Mere Association receives a telegram from Michigan Governor George Romney, who endorses the Grande Mere State Park plans and asks for delay in rezoning of the area.

JANUARY 6. Lincoln Township Planning Commission endorses the rezoning of 400 acres in Grande Mere for industrial and commercial purposes. A real blow to the Grande Mere Association. The Commission explains how the plans submitted by the owners list the dredging of Middle Lake for yacht basin purposes as the first step. The yacht basin or marina plan also proposes the digging of a channel from Middle Lake to Lake Michigan. When these plans are proposed to the Berrien County Planning Commission, they receive a cool reception and at least two members said, "we have a responsibility to the generations to come and there is only so much lake front. It should be bought by the county and state for a park."



FEBRUARY 11. The final public hearing is held and despite hundreds of protests against rezoning, the Lincoln Township Board votes to rezone the area to "planned development, commercialization, and industrialization" of Grande Mere. The Grande Mere Association has only a few days to decide whether a referendum should be sought. The Board of Directors meets and votes to go ahead. In two days, the circulating of petitions results in 702 signatures — nearly twice as many as needed to demand the referendum. The Township Board does not announce when the election will be held until April 12, selecting June 6 as the date. The Grande Mere Association has its work laid out! Novices at this sort of thing, they enlist the assistance of many knowledgeable people: engineers, ecologists, T.V. personalities, teachers, writers — support comes from across the country. The battle is conservationists versus commercialists. Local groups such as the Lions Club, Chamber of Commerce, and Jaycees line up behind the commercialists, while many other organizations back the conservationists. It seems to be a toss-up! This is one of the most time-consuming, energetic operations the Grande Mere Association has ever become involved with. Thousands of dollars are spent on publicity; the contributions come from people in all walks of life the public has to be made aware of the vital issue. Grande Mere enjoys the publicity of "being on television" when WBBM-TV produces a long film of the area. Weeks of struggle and frustration, hope and despair, follow.

"Nature education, natural resources use, and conservation training are rapidly becoming a part of the general school curriculum. We now realize that many natural features and native landscapes are irreplaceable in terms of one's lifetime so that their preservation takes on a far-reaching significance . . . The Grand Mere area is supplied with a wealth of natural features which could contribute significantly to a program of ecological training and education in the wise use of natural resources."

Paul Thompson, Past President Michigan Natural Areas Council

"I personally consider the Grand Mere area worthy of preservation as a nature reserve for the lessons it illustrates in both glacial and shoreline geology and in ecology. The area as a whole still serves as a valuable outdoor laboratory for classes in geology, botany, zoology and other field sciences. It is a relatively wild area, and one which combines the great contrast of swamps and dunes in a delightful and interesting manner. Its preservation is much to be desired."

Dr. Charles Olmsted University of Chicago

"Remarkable... This Grand Mere area is a remarkable duneland... We consider that this area is much more valuable for a park and nature preserve... than for alternative commonplace one-shot commercial use. It is within my professional field as an ecologist to judge the quality of lands from the former viewpoints. I am personally very familiar with Grand Mere and can vouch for the great importance of saving this exceptionally fine tract for the highest public uses in perpetuity."

Alton A. Lindsey, Ph. D.
Purdue University
Pres. Indiana Academy of Sciences



NNER URGES SCIENTIFIC DEVELOPMENT All Agree--Grande Mere Is Exceptional THE HERALD-PRESS TTLE IS NG OVER D MERE e Smill Brill ST. JOSEPH, MICH. WEDNESDAY, APRIL 12, 1967 79



Nature Study Preserve





JUNE 6. The people of Lincoln Township have the privilege to vote.

SAVERS OF DUNES WIN IN ELECTION ON GRANDE MERE

The battle is won, but the war is far from over.

In retrospect, just shortly before June 6 the owner of 400 acres in Grande Mere, Judge Phillip Shapiro, died, leaving his property to his estate. Judge Shapiro had never asked to have his property rezoned and had expressed a dislike for sandmining.



It is about this time that the Grande Mere Association learns that 22 acres of prime duneland in Waverland Beach, Grande Mere, is going to be sold to the sandmining company; conservationists are panic-stricken. The owners are persuaded to allow the Grande Mere Association time to raise the down payment for the purchase, and by fall \$20,000 is contributed toward what is now known as the Grande Mere Nature Study Preserve.

AUGUST 4. Grande Mere Association becomes incorporated.

NOVEMBER 9.

GRANDE MERE GROUP SAVES DUNE LAND — 22 ACRE TRACT IS PURCHASED, GIVEN TO NATURE CENTER TO KEEP IT FROM FOUNDRY

The Grande Mere Association has purchased 22 acres of dune land and given it to the Kalamazoo Nature Center to save it from being carted away to a foundry.

The 22-acre Preserve is a rectangular parcel of duneland. It boasts a representative list of trees, shrubs, some very rare wildflowers, many varieties of fungi and mosses. A small hemlock forest graces the middle of the Preserve. The old wagon trails, used decades before, are now made into footpaths that criss-cross the entire area. A gravel road bisects the length of the acreage, but it is a private road for the residents of Waverland Beach to reach their homes. Walking on this road is permissible but outside vehicular traffic is discouraged.

Benches are placed at intervals along the trails for the convenience of the nature lover who may wish to stop long enough to take note of his surroundings.

The Grande Mere Nature Study Preserve has already served thousands of students and adults, but it is only a small sample of the Grande Mere Area. In three years contributions have made it possible for the land to be free of indebtedness.

Although the Kalamazoo Nature Center holds title to the Preserve and, therefore, donors may make tax-exempt contributions to support it, the Grande Mere Association meets all maintenance costs and local taxes and is consulted by the Center on the use of the area. The Association maintains the trails, signs, and bulletin boards. The Preserve is open to the public at no charge.

1968 FEBRUARY 6.

> GRANDE MERE ZONING CHANGE IS REQUESTED Want 79 Acres to be Commercial Property Located at Stevensville I-94 Interchange.

Plans to commercialize a portion of Grande Mere again confronted the Lincoln Township last night with a request to rezone 79 acres adjacent to I-94 Interchange.

The Lincoln Township Planning Commission received the request from Victor S. Peters of Chicago and scheduled a public hearing on the matter on March 4.

The written request sought re-zoning of 79 acres from residential to commercial. What type of commercial enterprise is planned was not announced.

Once more the Grande Mere Association has to decide if it should become involved in another referendum. Referendums are costly and this one could spell the doom for the Interchange. After several Board meetings, it is agreed that if the township does in fact rezone the Interchange, the Grande Mere Association will ask for a referendum.

MARCH 13.

GRANDE MERE
SUFFERING FROM CASE
OF LIMBO
No Action Taken on
Re-zoning.

Lincoln Board waits on County...

By this time many articles are being written and many people are discussing air pollution, water pollution, and the need for open spaces. Ecology is catching on and because of the eligibility of Grande Mere being a National Natural Landmark and because many are familiar with the Grande Mere struggle, the Grande Mere Association has high hopes of saving the Interchange. There are many, however, who argue that interchanges are always zoned commercial. The Grande Mere Association thinks this one should be the exception. There are several public meetings relating to this rezoning.

Months go by and no date is set by the Township Board for the referendum. Conflicting reports are printed in local newspapers and it becomes apparent that the press is no longer in the Grande Mere Association camp. There comes a period when "clarification" has to be requested in many newspaper articles, all of which causes confusion among the general public. Winning this referendum will be rough!

MARCH 22.

LINCOLN TOWNSHIP BOARD SUPPORT RE-ZONING OF 79 ACRES AT THE GRANDE MERE I-94 INTERCHANGE

APRIL 1. Grande Mere Association holds its first big event — the Coho Festival — in Shadowland Ballroom — drawing hundreds of people and swelling the treasury considerably. Members of the Michigan Department of Natural Resources are the principal speakers.

APRIL 10.

ANOTHER HEARING IS SCHEDULED — BATTLE OVER RE-ZONING PART OF GRANDE MERE

Shortly after the *first referendum* the Grande Mere Association had applied to the Department of the Interior for a survey to be made in order to ascertain whether the Area qualified for the status of a National Natural Landmark. In July 1967, Dr. John Cotter and Naturalist Earl Estes of the Department came for a two-day study of Grande Mere. Through the interest and cooperation of Senator Phillip Hart and Alan T. Edmunds, Midwest Director of the Park Service, Grande Mere was receiving recognition.

MAY 10. A telegram is received from Washington that the Grande Mere Area has been declared eligible for designation as a National Natural Landmark. In order to qualify, an area must possess national significance and reflect integrity; it must present a true, accurate, and essentially unspoiled natural example.

Grand Mere qualifies on points 1, 3, 4, 5, 6, 7, 8, 9 and 10.

- 1. Outstanding geological formations or features significantly illustrating geologic processes.
- 2. Significant fossil evidence of the development of life on earth.
- 3. An ecological community significantly illustrating characteristics of a physiographic province or biome.
- 4. A biota of relative stability maintaining itself under prevailing natural conditions such as a climatic climax community.
- An ecological community significantly illustrating the process of succession and restoration to natural conditions following disruptive change.
- 6. A habitat supporting a vanishing, rare or restricted species.
- 7. Relic flora or fauna persisting from an earlier period.
- 8. A seasonal haven for concentrations of native animals, or a vantage point for observing concentrated populations such as a constricted migration route.



- 9. A site containing significant evidence illustrating important scientific discoveries.
- 10. Examples of the scenic grandeur of our natural heritage.

MAY 17.

LINCOLN RE-ZONES 65½ GRANDE MERE ACRES

Owner tells his plans for site but County planners oppose use for shopping center.

MAY 22. Second big annual hike takes place at Grande Mere. Fundraising dinner is held to support the purchase of the Preserve.

JUNE 15.

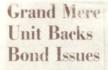
GRANDE MERE ASSOCIATION DEMANDS REFERENDUM ON RE-ZONING

Petitions presented to Township Board. Township Board still does not indicate voting date.

The board questions the legality of the petitions and sends them to the Attorney General. Upon receiving the reply that they are valid. . .

SEPTEMBER 17.

LINCOLN TOWNSHIP WILL VOTE ON RE-ZONING GRANDE MERE LAND VERDICT DUE NOVEMBER 5th



Proposed Funds For Recreation, Pollution Fight

By DICK DERRICK SJ City Editor
The Grand Mere association vending 1,000 letters in upport of two bond issues on lie Nov 5 ballot relating to bastement of water pollution and land for parks.
The association is the list of any organization in the wear to lend its mind and



SAVE WATER WONDERLAND: Theme of 1,000 letters being sent by Gre More association is "Let's save our Water Wonderland." Officers, letters

The Grande Mere Association immediately sets about the task of informing the voters of Lincoln Township of the potential of Grande Mere. The State of Michigan will have on the ballot two bond issues — one calling for a \$335,000,000 bond for clean water and the other a \$100,000,000 bond for public land acquisition for recreational purposes. The Grande Mere Association sends out over 1,000 letters urging the support of these two bond issues.

OCTOBER 30. Grande Mere Association members man the street corners handing out material relative to the bond issue. Many organizations assist in the support of the Grande Mere referendum. Low-key publicity is sent out in advance of this voting date. Three thousand copies of an eye-catching brochure are sent out to residents of Lincoln Township. It points out in brief some of the features of Grande Mere as a natural resource. Although the battle rages it is not as heated as the first referendum. Lincoln Township officials back the re-zoning to the end. A humorous note is provided by Emil Tosi with the following ad:



NOVEMBER 5

PROPOSAL TO RE-ZONE GRANDE MERE FOR COMMERCIAL DEVELOPMENT IS DEFEATED

DECEMBER 26. Mindful of the \$100,000,000 the voters supported for recreation, the Legislative Committee of the Grande Mere Association meets with Senator Charles O. Zollar (R) of Benton Harbor, Chairman of the Senate Appropriations Committee, seeking his support for assistance in obtaining a portion of this for the purchase of at least 400 acres of Grande Mere for "educational preservation." The Senator promises his support. The \$100,000,000 bond money has become a political football in Lansing and when all is said and done only 30% becomes available for actual land acquisition for purposes of preservation.

1969 JANUARY 14.

EYES STATE BONDS FOR GRANDE MERE ZOLLAR WILL URGE PURCHASE OF DUNE AREA

A long article describes how the expenditures will be made.

FEBRUARY 22.

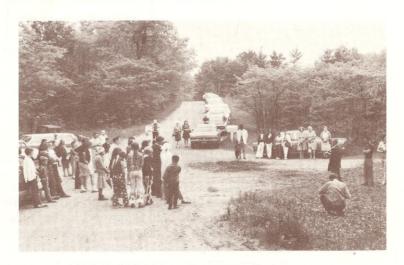
RECREATION BONDS FAR SHORT OF STATE NEEDS

MARCH 13.

RECREATION BOND SCRAP GROWS? GOP CHIEFS OPPOSE MILLIKEN. Governor vows he'll fight for 3-way split.

All of this is of great concern to the Grande Mere Association . . . is not the money for the Area coming from this fund? Senator Zollar, according to print "criticizes big city grab and opposes Milliken's plan on recreation bonds."

MAY 21. A letter explaining the participation of the Grande Mere Association in conservation was written on November 20, 1968 to the American Motors at Detroit entering that Company's annual conservation award contest. On May 21, a notification is received that the top award for the conservation organization of the year is being awarded to the Grande Mere Association.



JUNE 1. The Grande Mere Nature Study Preserve is dedicated with a ceremony at the entrance. Among the out-of-town dignitaries, The Nature Conservancy is represented.

JUNE 21. During the annual convention of the Michigan United Conservation Clubs convening in Petoskey, Michigan, a resolution is passed unanimously indicating their support of the purchase "of 1,000 acres of Grande Mere by the State."

AUGUST 1. Mr. Fred M. G. Lehm of American Motors presents the Grande Mere Association with a beautiful bronze plaque and a \$500 check for having won the top conservation organization award.

AUGUST 21. Members of the Grande Mere Association are received at the Department of Natural Resources in Lansing to discuss the future of Grande Mere and the possible acquisition of at least 400 acres. The DNR people express their support.

The Grande Mere Association has a fund-raising campaign at this time to obtain the balance of the payment for the Grande Mere Nature Study Preserve. This is accomplished, and with the aid of The Nature Conservancy, the final payment is made on November 1, 1969.

1970 JANUARY 17.

PLAN WOULD RESCUE
BERRIEN'S SCENIC
WONDERS
Open Land Will Soon
Be Gone

Planning consultant Jacob Driker points to map of Berrien County dated 1990 ... Driker's map emphasizes continuous park systems or parkway down the floodplains of St. Joseph, Paw Paw, and Galien Rivers, plus preservation of Lincoln Township Dunes (Grand Mere) . . .

This is suggested to the Berrien County Planning Commission.

JANUARY 19. Representatives of the Grande Mere Association attend public hearing in Lansing to support HB 3055.

FEBRUARY.

Tight Money Hurting Sale of State Bonds

Grande Mere has to wait for the sale of these bonds before they can expect any action from the DNR.

MARCH 11.

Lincoln Township Okays Sand Mining Restrictions

Yes, upon the insistence of the Grande Mere Association, a new sand-removal ordinance has been adopted, but it is a weak one. It requires only that a permit be obtained for the removal of sand. Hence, removing is still going on.

MARCH 30. The Grande Mere Association receives a call from Senator Phillip Hart's office in Washington inviting them to participate in a public hearing in Grand Rapids and to make a presentation at the Subcommittee on Energy, National Resources, and the Environment

The Grande Mere Association complies.

APRIL. The Grande Mere Association participates in Earth Day activities with a big clean-up campaign throughout the whole Grande Mere Area. Tons of debris are disposed of.

MAY 9. The Grande Mere Association hosts the Michigan Botanical Club at an all-day hike through the Area — just one of the many groups to use Grande Mere during the month of May.

JULY 25. The Association holds a huge rummage sale that nets over \$1,000.

JULY 30.

STATE PUTS HIGH PRIORITY ON GRANDE MERE

Purchase of 400 Acres Being Eyed . . . Deal Not on Legislature's List for Action.

JULY 30. John Humke of Nature Conservancy speaks at annual GMA meeting.

AUGUST 28. Grande Mere Association's Vice-President, Juniata Cupp, gives "Grande Mere — Is it Fact or Fiction" slide show to national convention of Nature Conservancy at University of Madison, Wisconsin. Nearly every state is represented and hears about Grande Mere.

Walter E. Scott of the Wisconsin Department of Natural Resources, upon hearing that Grande Mere no longer has an American chestnut tree growing, sends three small trees that have been planted in the Preserve.

NOVEMBER 2.

STATE TO BUY 400-ACRE STRIP AT GRANDE MERE... WILDERNESS PRESERVE PROJECT OKAYED...

STATE SENATOR ZOLLAR HAS INFORMED the Grande Mere Association that a project to establish a 400-acre conservation-education preserve in the wilderness tract near Stevensville has been approved for appropriation . . . Zollar said the Department of Natural Resources has requested as high priority \$350,000 for land acquisition. The funds, in the department's 1970-71 budget are in the \$25,000,000 portion of the \$100,000,000 recreation bond issue approved by voters two years ago.

Through recent years the Grande Mere Association has led a so-far successful battle to prevent parts of the Area from being commercialized.

1971

MARCH 20. The Grande Mere Association for the first time sends a local school teacher to Higgins Lake Conservation School on a scholarship.

MAY 23. The Association holds another annual hike attended by hundreds of people.

JULY 12. A red-letter day for Grande Mere.

MILLIKEN APPROVES DUNES ACQUISITION. GRANDE MERE ACRES WILL BE PRESERVED . . .

MICHIGAN TRYING AGAIN ON GRAND MERE

JULY 15. The Grande Mere Association hires its first paid Naturalist at the Preserve. Two fine volunteers have served in this capacity during the past two years.

JULY 24.

GROUP THANK SENATOR ZOLLAR

Senator Charles O. Zollar of Benton Harbor was formal-

ly thanked at a "VIP" dinner Friday evening when Emil Tosi, long-time member of the Grande Mere Association hosted a formal dinner...



JULY 30. Samuel Milstein, Deputy Director of the DNR, is principal speaker at Annual GMA Dinner meeting. Members hear plans for Grande Mere discussed. Mr. Millstein leaves a tentative boundary map of the proposed area with the Grande Mere Association Board — everything still very tentative.

OCTOBER 21. Grande Mere Association Board names its first Executive Secretary. Heretofore, one secretary handled all business for the group, almost a full-time job.

1972

JANUARY. Appraisers for the State are in Grande Mere determining the fair market value of the area considered for purchase. They are to report to the Department of Natural Resources by March 25. The Grande Mere Association becomes apprehensive — time drags.

During the next few months, the Grande Mere Association is concerned with annual events such as another big clean-up campaign throughout the Area on April 29, when large groups of Boy Scouts as well as adults turn out. Tons of litter are removed and hauled away.

Up to this time very little vandalism has occurred in the Grande Mere Nature Study Preserve, but now extensive damage is being done to dune paths by motorcycles. Low-key warning signs are placed throughout the Preserve, doing little good. Police and prosecuting attorneys advise us to use strong measures. \$100 reward signs are placed on premises with apparent good results. Very little litter or damage occurs.

GMA conducts a mini-membership campaign with good results. Many new people join the ranks to Save Grande Mere.

MAY 21 brings out more than 300 persons to hike through not only the Preserve but also over the Shapiro Dunes.

Legislative Committee makes frequent trips to Lansing to confer with the DNR and to keep in close touch with Senator Zollar.

JUNE 13.

HOUSE VOTES GRANDE MERE FUNDS

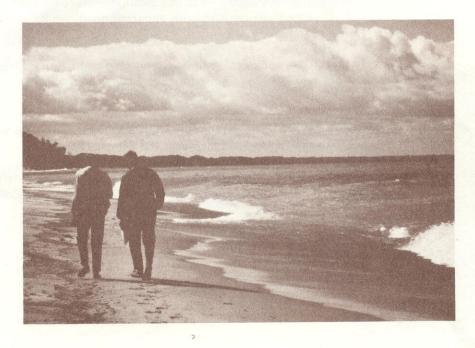
The Michigan Legislature has moved one step closer to providing Berrien County with a second State Park according to State Senator Charles O. Zollar (R-Benton Harbor). Zollar reports that another \$385,000 has been voted by the Senate for the development of Grande Mere State Park, a 400-acre facility planned for Berrien County in the sand dunes area along Lake Michigan near Stevensville...

This announcement pleases every conservationist but arouses doubt in some people's minds. Some do not like the sound of the word "park" so this has to be clarified. Neither Mr. Zollar nor the DNR meant to refer to the area as a "park" so the Grande Mere Association asks for clarification.

JULY 2 headlines in the South Bend Tribune read:

DUNES TO BE KEPT AS A PRESERVE

Appraisals completed, Senator Zollar asks the Legislature for another appropriation. \$385,000 has been added to the \$350,000, totaling \$735,000 for land purchase in Grande Mere.



OCTOBER 9. Larry Miller of the Department of Natural Resources addresses the membership of the Grande Mere Association at their annual meeting in St. Joseph. Mr. Miller is in charge of master planning of the Parks Division of the DNR and is familiar with Grande Mere.

The Grande Mere Association supports legislation concerning the Shoreline Protection Act and the Inland Lakes and Streams bill.

Fall comes to Grande Mere and many are attracted to this wilderness Area, still much the same as when the battle to save it started some eight years ago. With \$735,000 lying in Lansing that can only be used for the purchase of part of Grande Mere, it is still very much a question as to when the purchase will be made. Apparently, executors of the Shapiro estate are unwilling to sell at the price offered by the State.

DECEMBER 18.

The Berrien County Coordinating and Development Council vote unanimously to adopt a RESOLUTION which requests the Berrien County Board of Commissioners and the Parks and Recreation Commission to purchase 20 acres in Grande Mere which lies immediately south of the Grande Mere Nature Study Preserve.

1973 JANUARY 18.

"BOYLE LAKE OFF PARKSITE BERRIEN NOW LOOKING AT DUNES"

"the PRC did hold a closed discussion of another parksite elsewhere — Gebbard instructed to query Manley Brothers of Chesterton, Indiana . . . if it's interested in selling 20 acres of duneland in Grande Mere area.

"The query comes at the request of Berrien County Coordinating and Development Council which by letter last night asked the PRC to buy the 20 acres — a rectangle south of Grande Mere's south lake not far from Lake Michigan in Lincoln Township... to add it to a nearby 22 acre study preserve".

MARCH.

Parks and Recreation Commission receives letter from Manley Brothers indicating that they are "not interested in selling 20 acres at this time."

APRIL 14.

To Create Grand Mere Wilderness

Condemnation Action Asked

BY DAVE ANDREWS Staff Writer

LANSING — Recommendation that the state begin preliminary proceedings for condemnation of 426 acres in the 1,200 acre Grand Mere area for use as a "natural interpretive park" will be made to the natural resources commission at its April 12-13 meeting in Lansing.

The preliminary proceedings, if approved by the commission, would include notification to owners of the property of pending condemnation action, plus final offers for purchase.

Request for authority to begin actual condemnation would go to the commission at its May meeting, according to A. Gene Gazley, DNR director.

Gazley joined Robert G. Wood, lands division, and O.S. Scherschligt, in the further recommendation that the commission specifically allocate \$485,000 from the state recrea-

tion bond fund — as appropriated by the legislature — to acquire the land.

The site "includes the best of the area endangered by development processes which have already engulfed the northernmost two of the three Grand Mere lakes," the officials said.

The tract is now in trust under terms of the will of the late P.A. Shapiro of Chicago, whose corporation owned the land the DNR said, and effective progress toward purchase has not been made.

Taking by condemnation is "the only practical alternative now before the department if the land is to be acquired in timely manner," the department added.

The tract, which is almost contigous to I-94 on the east, includes 110 acres of lakeshore dunes, 2,400 feet of beach, 266 acres associated with South Grand Mere Lake and the 50-acre lake.

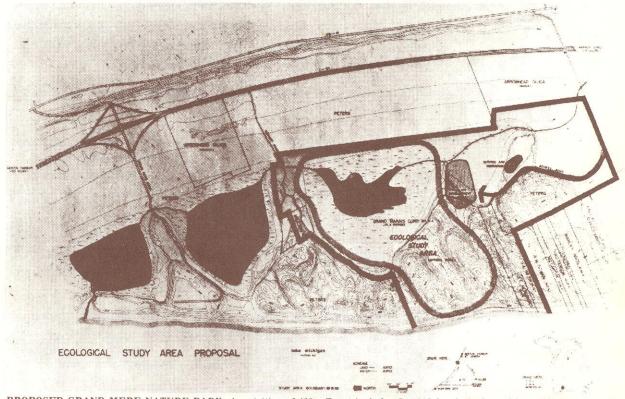
The DNR said it would plan "present and future educational and outdoor-oriented nature interpretive functions rather than the historic park objective of recreational uses by the general public for the area.

Park objectives, the DNR added, can best be served by "continued development of the closely proximate Warren Dunes park."

The department noted the inland lake and its swampy shoreline in the tract proposed for acquisiton "attracts a great variety of migratory and nesting marsh and shore birds. Marsh plants, many truly rare, grow in profusion in the shallow waters around the lake shore."

The Grand Mere association, which was organized in 1965 to fight rezoning of the area for commercial or industrial development, has spearheaded efforts since then to preserve some 1,200 acres in the Grand Mere area in its natural state.

'ALTERNATIVE' IN GRAND MERE



PROPOSED GRAND MERE NATURE PARK: Acquisition of 426 acres in Grand Mere area for proposed nature interprative park moved step closer yesterday with approval of Natural Resources commission of "final offers" for purchase before condemnation is launched by attorney general. The 426-acre tract would place in state ownership most of outlined area on map, above, provided by Mrs. F.V. Cupp, legislative chairman of Grand Mere association.

Tract includes South lake, 2,400 feet of Lake Michigan frontage, dunes. Arrowhead line marks access road proposed to interpretive center. Negotiations are underway for state purchase of several smaller parcels of land within outlined area on map. I-94 runs across top of photo, roughly parallel to Lake Michigan shoreline, bottom. Stevensville I-94 interchange is at the top left. (Staff photo)

Owners Face May Deadline Or Condemnation Suit

BY DAVE ANDREWS

— Staff Writer

LANSING — Michigan's Natural Resources commission yesterday took first steps to acquire through condemnation 426 acres in the Grand Mere area for a proposed nature interpretive park.

Commissioners authorized notification to owners of the

pending resolution of condemnation which will be before the commission at its May meeting if no negotiated sale is completed by then.

Appropriation of \$483,000 for the 426-acre tract also was approved. The funds are part of \$715,000 approved by the legislature for Grand Mere land acquisition and development. The 426-acre tract is one of the assets of the family-owned corporation of the late P.A. Shapiro of Chicago now in trust under terms of his will and Illinois law, according to the DNR. It has been appraised at \$483,000, the DNR said.

Condemnation is the "only practical alternative" if the land is going to be acquired in "timely" manner, the department added.

Mrs. F.V. Cupp of St. Joseph, legislative chairman of the Grand Mere association which has been working since 1965 to preserve the entire Grand Mere area of about 1,200 acres in its natural state, said the association and DNR are in complete concurrence over plans for the preposed park.

She said the association has worked closely with the DNR and Sen. Charles O. Zollar over planning and funding for the park.

The \$715,000 legislative appropriation from Michigan's recreation bond fund includes money for acquisition of land, plus development of ramps, trails and an interpretive center and access road, Mrs. Cupp said.

She said no camping, picnicking or vehicular travel will be permitted in the proposed park and "heavy usage" will be discouraged.

The proposed acquisition includes the entire South lake — one of three Grand Mere area lakes — along with 2,400 feet of frontage on Lake Michigan.

Action by the commission provides about three weeks for "final negotiation" before start of formal condemnation proceedings by the attorney general.

The commission will meet again in the first week of May.

APRIL 30.

Grande Mere Association having petitioned the road commission to have Wishart Road in Grande Mere declared a scenic road, PUBLIC HEARING to be held on May 16th at Lincoln Township Hall.

If this receives favorable decision it will be Southwestern Michigan's only official scenic road.

So — for every disappointment comes an encouraging word and with the tenacity of purpose the Grande Mere Association relentlessly plods along. They are not about to abdicate their responsibilities to the many people who have shared their faith. Instead they will work harder to achieve their purpose. There are still high hopes of the Department of Natural Resources reaching their goal of obtaining at least 400 acres and who knows? Perhaps by the time this last chapter is being read good news could come. The Grande Mere Association will always be mindful of and grateful to the Department for their interest in Grande Mere.

At this writing, the chapter must end with hope and perseverance as allies. No true conservationist is going to give up at this time. The final chapter of this history can only be written when all of GRANDE MERE is saved for future generations to appreciate and enjoy.

Please help whenever, wherever, and however you can.

Suggested References and Supplemental Reading

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