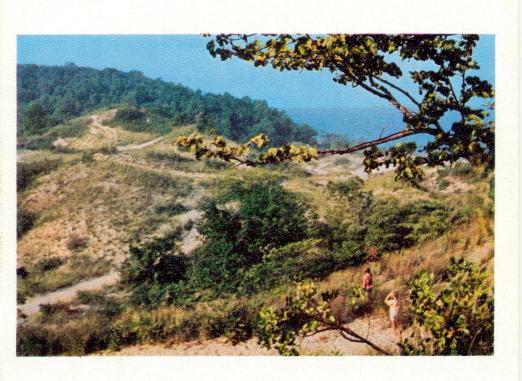
# Unique GRANID MIERE



### "UNIQUE GRAND MERE SHOULD BE PRESERVED"

"...Certainly there should be some way to preserve the unique attractions of GRAND MERE for future generations.

"Every 24 hours America loses 3,000 acres of natural land to development. This amounts to about 1,000,000 acres a year going into such things as urban expansion, housing subdivisions, shopping centers, highways and so on.

"Fewer and fewer children today have the benefit of first-hand 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 animals 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 ... 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."

Editorial appearing in NEWS PALLADIUM November 18, 1965 Reprinted by permission



## NATIONAL LANDMARK

On May 10, 1968, the Department of the Interior declared Grand Mere's 1,200 acres eligible for the status of a National Natural Landmark. The declaration was made by Stewart Udall, Secretary of the Department of the Interior, Washington, D.C.

The 1,200 acres eligible for this honor contain three lakes, two bogs and the dune bridge. The owners have been invited to make application for a bronze plaque and certificate indicating the desire on their part to accept this honor.

In order to qualify for a National Landmark distinction, an area must possess national significance and reflect integrity; it must present a true, accurate and essentially unspoiled natural example.



An area must contain several of the following requisites for national significance. Grand Mere qualifies on points 1, 3, 4, 5, 6, 7, 8, 9 and 10.

- 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.
- 5. 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.
- A site containing significant evidence illustrating important scientific discoveries.
- Examples of the scenic grandeur of our natural heritage.



INDIAN TERRITORY

This area lies close to one of the principal Indian routes of the past -- the great Sauk Trail, which passed through Berrien County. Since the St. Joseph River was one of the Indians' favorite waterways, many Indians passed northward through the Grand Mere area to reach this stream.

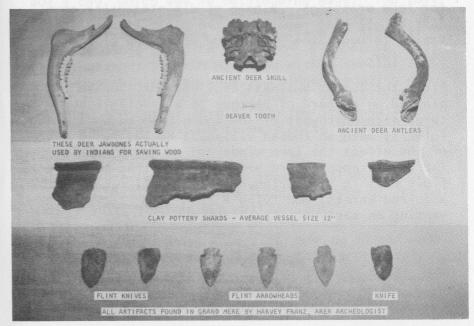
With the coming of the explorers, this area was visited by white men. LaSalle, with three friars, ten Frenchmen and a Mohican hunter, in four canoes, skirted the lower end of Lake Michigan and passed through Grand Mere on his way from Green Bay to the mouth of the St. Joseph River, where he built Fort Miami in November of 1679. Grand Mere was the route taken by many settlers and travelers. Historically, Grand Mere thus lies close to the crossroads of early travel and activity.

The Indians of this region spent at least part of each year living in small villages. These campsites are found in locations sheltered from cold north and west winds, and always near a source of water. A location near a cattail swamp was almost a necessity, since their huts were made of mats woven from cattail leaves. These swamps were a valuable source of food. Cattail roots are excellent boiled or roasted, as are the roots of Arrowhead or duck potato.

The many deer provided meat and hides for clothing. The beaver and his "little brother" the muskrat also provided meat and fur. Fish, frogs, turtles and waterfowl were always plentiful.

The activities of present-day man have erased most of the evidence of the Indian way of life in Grand Mere. A well-defined campsite existed on the east side of the highway between Grande Vista and the Stevensville Road, but it was destroyed by sand removal. Two fairly extensive campsites, one between North Lake and Lake Michigan, the other south of Dunham Dunes, existed. Scattered evidence of another is found south of South Lake. For some reason, the top of the ridge on the east side of Grand Mere seems to have been a favorite camping place. The highway now occupies this site.

When the local Indians were taken west in 1838 - 1840, some of them evaded the soldiers who were sent to round them up, and lived a few years in secluded spots in this area. No one knows definitely where they lived, but several places have been mentioned. Of all these places, Grand Mere would have been one of the most favorable and probably one of the most secluded.



### IN DAYS GONE BY

The first white man to settle in Lincoln Township on a considerable tract of land was Major Timothy S. Smith. In 1827, Major Smith, a teacher at Cary Mission, laid out a paper village on the west of the three Grand Marais. Lakes at the Lake Michigan shore. Three St. Joseph men in 1837 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 scattered forests of white pine; however, the owners objectives were never realized.

This territory was part of Royalton Township until 1867. The west part, now Lincoln Township, was the last to be settled because the sterile appearance of the soil caused most settlers to give other localities preference.

An exception to this, however, was a pioneer by the name of T. W. Dunham. In 1867, Mr. Dunham started a sawmill on the northwest shore of Middle Lake that developed into an enormous lumber business. To facilitate shipment of lumber, Mr. Dunham erected the "Dunham Pier" in Lake Michigan just west of the sawmill from which schooners were loaded for lake crossings. A heap of disintegrating sawdust is all that remains of the old mill, and some trails through the woods show where the old log roads lay.

After the lumber business declined, Mr. Dunham planted an orchard of peaches on a favorable sheltered site northwest of the South Lake on what had formerly been an Indian village. He was fully aware of the effect the lake winds had on fruit growing. The cold atmosphere retarded the swelling of early fruit buds in the spring, and late fall retained the acquired warmth, modifying a cold snap, thereby preventing an early killing frost.

\* The name Grand Mere has been spelled in various ways. Some historians believe the "Grande" is French for great, and "Mere" for mother.

At a later date, a Chicagoan, Mr. Rich, acquired property near South Lake and soon developed it into a successful cranberry growing business. The South Lake was dammed in order to flood it prior to the freezing winter months. After the lake was frozen, sand was wheelbarrowed from the Nipissing Beach to the west and spread evenly over the ice. Young cranberry plants were planted in the sand which was deposited on the lake bottom with the spring thaw. A concrete dam was subsequently built at the north outlet of South Lake which can be seen today. By means of this dam, the marsh level was controlled for winter protection which was of vital importance for a bumper crop.

During the peak of the fall harvest, up to five hundred pickers could be seen, kneeling in long, unbroken waves across the marsh. Strict foremen supervised the picking. At the sight of a few overlooked cranberries, they would tap the picker on the shoulder with a cane and order him back to clean up his oversight. Pickers were not allowed to take a lead, or peel away from their neighbors, thereby maintaining a line that was a sight not to be forgotten.

Standard measure containers or grape baskets were used for picking, and a diligent worker could earn 80¢ a day, which was an outstanding wage. The full baskets were dumped into ventilated crates that were later transported to the village of Stevens-ville by means of horse and wagon. The horse while on the cranberry marsh was shod with a special set of demountable wooden shoes to prevent bogging down. The crates were stored in Purcell's Drug Store, located on the corner across from the Stevensville Bank, and later shipped to many parts of the United States.

At the end of the cranberry season, neighbors could pick the berries and store them in crocks of ice-cold water for as long as six weeks.

Local production of cranberries came to an end when other states produced them on a much larger scale. Cranberries are still found growing wild in the area.

- by Louis P. Ueck, member of the Southwest Chapter of the Mich. Archaeological Society

### ICE CUTTING

Ice cutting on the Grand Marais Lakes was one of the major seasonal businesses. Mr. Dunham erected a large ice storage house that he filled with ice for summer deliveries on the south shore of North Lake. A crew of up to fifty men were employed for a couple of weeks in the winter. Long channels leading from great distances where the ice was of superior quality were cut by means of hand saws. Ice cakes were piked directly on a conveyor running up a chute. These cakes were drawn up the chute with a hook, rope and pulley by a team of horses.

### **DUNHAM RESORT**

While the Grand Marais Lake area had other activities, none was better known than the Dunham Resort, situated on the Lake Michigan shore northwest of Middle Lake. Social groups staged all-day affairs at this popular resort. The resort business flourished in these beautiful surroundings. Whether for business or recreational purposes, the area is outstanding. It is popular with bathers, fishermen, hunters, ice skaters, skiers and shutter bugs.





For over forty years, university, college and school students have used Grand Mere as an outdoor laboratory.

"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."

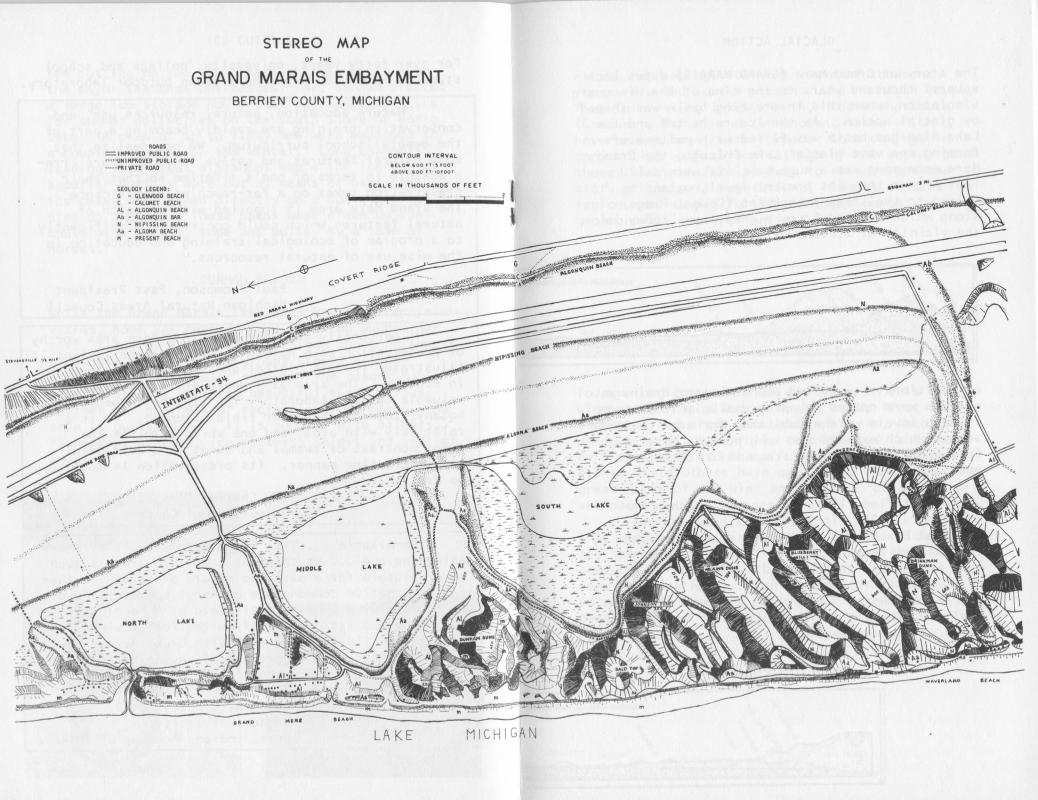
Paul Thompson, Past President Michigan Natural Areas Council

"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

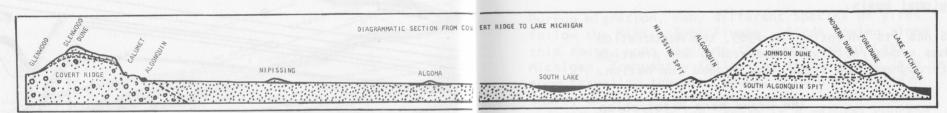
"Remarkable ... This Grand Mere area is a remarkable duneland ... We consider that this area is much more valuable for a park and nature preserve ... than for alternative commonplace one-shot commercial use. It is within my professional field as an ecologist to judge the quality of lands from the former 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



### GLACIAL ACTION

The story of Grand Mere (GRAND MARAIS) dates back several thousand years to the time of the Wisconsin Glaciation, when this interesting basin was shaped by glacial action. As the ice retreated and the Lake Michigan basin was filled with melt waters forming the vast glacial Lake Chicago, the Grand Mere embayment was a huge bay, its waters 120 feet higher than its present level, extending inland to the steep embankment (Covert Ridge) along which the Red Arrow highway runs today in the vicinity of Stevensville.



As additional ice melted and new water drainage outlets were opened up, progressively lower Lake Chicago levels were established for each of these stages which existed for long periods of time. Consequently, each lake stage left its beaches and sandbars.

Geologists find five of these old beaches in Grand Mere. The highest one is known as the Glenwood Beach; the next lower stage is marked by the Calumet Beach at 35 feet above the present lake level, and the Algonquin Beach can be traced at 20 feet above the lake level. Still lower are the Nipissing Beach at an elevation of 15 feet, and the Algoma Beach, only 10 feet above the present lake level.

Today along the Lake Michigan shore in this area, wind action has piled up moving sand, first into sandbars, and after thousands of years, into tremendous dunes, some fully tree-covered, and thereby stabilized into beautiful summits and sunlit glens; while others have open areas which show the great force of the wind and water in duneland developments.

As the retreating water over several thousand years returned to the present Lake Michigan level,

five interesting lakes, North, Middle and South

have become bogs, were formed. Core borings in

these lakes can furnish data to reconstruct the

story of the past vegetational history of this

region, and supply further information on the

geological history of ancient days.

conjunction with carbon datings of the soil around

(Cranberry Marsh) and two ancient lakes which

This vast interlocking system of dunes which occupies the southwest corner of the Grand Mere embayment and the area directly to the south, represents a complex pattern of ancient dunes which have been formed by the natural forces of the past as well as being affected by the forces of the present day. Consult your library for complete geology book on Grand Mere -- "Occasional Papers on the Geology of Michigan", by Dr. Glenn C. Tague



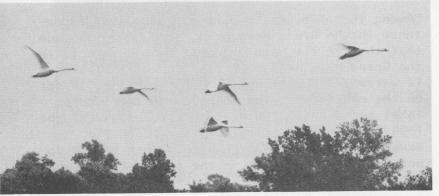
In 1965, Grand Mere became the topic of much controversial dialogue. Commercial development was proposed for much of the area. Realizing its unique values, a small group of local citizens formed the Grand Mere Association to effect the preservation of the natural features of Grand Mere as a recreation-education-wildlife complex for the benefit of present and future generations.

The Association is further dedicated to stimulating public awareness of the need for sound principles of natural resource management and preservation of prime natural areas on a regional basis.

Since its inception in 1965, the Association has grown rapidly in membership and prestige throughout the state, and indeed the nation.

The Grand Mere Association
P.O. Box 140
Stevensville, Michigan 49127





News-Palladium Photo

MIGRATORY BIRDS

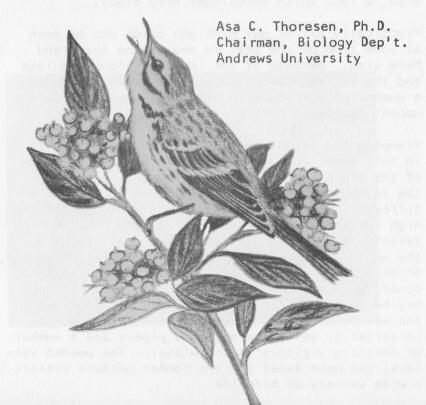
During migration, many different species of birds follow the Mississippi Flyway. Birds moving along this route, upon reaching the south end of Lake Michigan, frequently follow the shore of the lake -- some traveling the west shore, others the eastern shore, as they progress northward. Collecting over a front of fifty miles, there is a natural concentration of the different species in the Grand Mere area, a fact which encourages bird study.

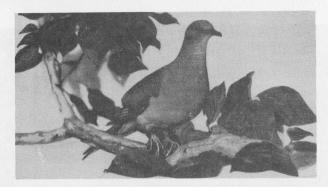
Practically all of our Michigan birds can be seen at some time of the year in and around the Grand Mere area. Because of the location along the lake and the varied habitats available among the dunes, a number of our southern Michigan summer and permanent residents nest there.

Tramping the height of the many ridges and bluffs in this area, the bird enthusiast has a close view of the migrating warblers located in the tops of the valley trees during early spring. A number of different species of hawks also commonly patrol the high ridges of the dunes. The dogwood, oak and sassafras groves on the dunes are ideal places for the nesting of several species of thrushes, bluejays, orioles, catbirds and many others. Grebes, herons, coots, gallinules and a number of species of ducks may be observed in the marshy lakes of Grand Mere. The nearby shores of Lake Michigan are frequently inhabited by gulls, terns, sand pipers and a number of northern visitors in the winter. The wooded valleys, the open dunes and the conifer borders attract a wide variety of birdlife.

"Among the warblers, one is of particular importance in the Grand Mere area, for the only place that the Prairie Warbler nests in Michigan is in the Grand Mere dunes. Protection of this area is warranted solely because of this fact, if not on the many other fine features of the swamps, lakes and dunes. The flat territory towards the I-94 Highway is particularly suited to the several species of sparrows that most people do not even realize exist -- the fox, white-crowned and white-throated.

"If our natural wild territories are destroyed, the wild life will be destroyed with them. If our Grand Mere dunes are spoiled, thousands of years will be required to bring them back again --- perhaps they will never come back. If birds are destroyed, noxious weeds and insects will multiply. Why not benefit from our past destructive, selfish experience and save this natural area for wildlife, education and for recreation from the tensions of modern life? We will help keep America beautiful and livable."





DEATH OF A SPECIE

For a thousand years, Grand Mere in the spring would see the return of the Passenger Pigeon. The Indians witnessed the arrival of many thousands; some years over a million arrived. They harvested and dried small quantities for winter food.

The numbers of the beautiful rose-gray pigeons were so great that their wingtips made the sound of a thunderstorm as they alighted in the trees. Soon after the courting, nesting and egg-laying, the squabs were hatched. The parent pigeons never fed within several miles of their nests so as to reserve the insects, caterpillars and seed near the nest for their young. The Indians and old-timers held the pigeons in high esteem because the birds literally eliminated the insects.

By the 1800's, professional pigeoneers came by the hundreds, snaring hundreds of birds from salt and grain-baited wet areas. Dressed out, pigeons were sent in barrels from Stevensville to Chicago and New York. They sold for 50¢ a dozen.

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 the specie was complete except for a lone survivor that lived in a Cincinnati zoological park until 1914. Insects returned to the area. All too late, men lamented the pigeons. A specie which had existed for thousands of years vanished within 50 years.

# GRANDE MERE NATURAL STUDY PRESERVE

Because every part of Grand Mere has something to offer, and because there are many who are willing to expend the effort to save it for conservation purposes, a group of dedicated citizens purchased 22 acres of wooded duneland at the southernmost end of Grand Mere. It has been named the GRANDE MERE NATURAL STUDY PRESERVE, and is being used by many people for educational and recreational purposes.

The Preserve was presented to the Kalamazoo Nature Center with several benefits gained, since they will supply technical knowledge and planning. The Grand Mere duneland provides habitat previously lacking under the Center's ownership, thereby expanding study areas for their use.

The Preserve is open to the general public.





### TREES OF GRAND MERE

Pepperidge Balm-of-Gilead poplar Lombardy poplar Quaking aspen Ellwanger thorn Judge Brown's thorn Large-fruited thorn New river thorn Red-fruited thorn Waxy-fruited thorn Ash, water & mountain Red twig dogwood Flowering dogwood Cork or rock elm Elm. white & winged Bitternut hickory King nut hickory Mockernut hickory Small-fruited hickory Kentucky coffee tree Locust. honey & yellow Willow, black, golden, shining, peachleaf, Sandbar, glaucous Birch, black, red, white Cherry, black, choke, pin

Shingle oak Schneck oak Chinquapin oak Perfumed cherry Prairie crabapple Wild crabapple American chestnut Tamarack or larch Carolina poplar Ash, red, white, green, blue, black Ohio buckeye Osage-orange Slippery elm Pignut hickory Hop hornbeam Horse chestnut Black walnut Buttonbush Wild plum Tulip poplar Oak, scarlet, red, black Dwarf chestnut

Witch hazel Basswood Red bud Sycamore Oak, bur, pin Chestnut oak Pawpaw Hackberry Ironwood Boxelder Arborvitae Balsam fir Black spruce Hemlock Jack pine White pine Beech Black haw Butternut Catalpa Hoary alder Alder Maple, black, silver, red Common cedar

### Ferns, Mosses Flowers, Vines and Shrubs of Grand Mere

To list the several hundred varieties of plant life that abounds in Grand Mere is not possible in our limited space. For those who enjoy finding such plants, this representative list may prove surprising:

Trailing arbutus Solomon's seal Dutchman's breeches Spotted wintergreen Roundleaf pyrola Partridge berry Evening primrose Spanish bayonet (Yucca) New England aster Heart-leaved aster Marsh marigold Cardinal flower Orchids, yellow & pink ladyslipper Lady's tresses Grass of Parnassus Fringed gentian Turks-cap lily Bluebead lily British soldiers White Fl. spurge Jack-in-the-pulpit White trillium Toad trillium Canada mayflower Bottle gentian Wild sarsaparilla Canada anemone Rue anemone Dame's rocket Blue lobelia Michigan holly Bishop-s cap Oxeye daisy Butter & eggs Pickerel weed Spatterdock Pitcher plant Lizard's tail

Wild licorice

Spring beauty

Water lily Indian pipe Goldthread Buttercups Pippsissewa Wild ginger Foamflower Nightshade Hepatica Merrybell Bellwort Columbine Baneberry Bloodroot Harebells May-apple Toothwort Lupine Pussytoes Puccoon Selfheal Bluets Ironweed Sundew Jewe I weed Crane-s-bill Wild rose Bedstraw Club moss Pixie moss Spice bush Wild iris Wood betony Bittersweet Greenbrier Raspberry Strawberry Currant Gooseberry Huckleberry Ferns Violets (in variety)



The large vellow lady's slipper grows in the bog lands of Grand Mere. This protected native orchid may take six or more years to flower from seed. Blooming time is from May-June.



Another bog plant is the unique pitcher plant. Vase-shaped leaves are often filled with water. Color and odor attract insects which are unable to escape and drown in the fluid. The insect is then digested. Birds of Grand Mere listed by Area Ornithologists

Seen on the inland lakes, the woods, the shoreline and migrating in spring and fall, many nest in Grand Mere.

Black-crowned night heron American goldeneve White-winged scooter Red-breasted merganser Cinnamon teal duck Mallard duck Canvasback duck Bufflehead duck Sharp-shinned hawk Red-shouldered hawk Fastern kingbird Ring-necked pheasant Double-crested cormorant Yellow-billed cuckon Black-billed cuckoo Ruby-throated hummingbird Yellow-bellied woodpecker Red-headed woodpecker Yellow-bellied sapsucker Great crested flycatcher Yellow-bellied flycatcher Acadian flycatcher Traill's flycatcher Eastern wood peewee Olive-sided flycatcher Rough-winged swallow Black-capped chickadee White-breasted nuthatch Red-breasted nuthatch Long-billed marsh wren Grav-cheeked thrush Blue-gray qnatcatcher Golden-crowned kinglet Ruby-crowned kinglet Yellow-throated vireo Black and white warbler Golden winged warbler Blue winged warbler Orange-crowned warbler Black-throated blue warbler Magnolia warbler Black-throated green warbler Cape May warbler Blackburnian warbler Chestnut-sided warbler Bay-breasted warbler Louisiana water thrush Connecticut warbler Yellow-breasted chat Eastern meadowlark Red-winged blackbird Brown headed cowbird Rose-breasted grosbeak American goldfinch Rufous-sided towhee Slate-colored junco White-crowned sparrow White-throated sparrow Eastern Bluebird

Chimney swift

Solitary vireo

Pied-billed grebe Great blue heron American hittern Whistling swan Blue-winged teal American widgeon Ring-necked duck Hooded merganser Common merganser Turkey vulture Red-tailed hawk Rough-legged hawk Sandhill crane Common gallinule Ruddy turnstone American woodcock Spotted sandpiper Rina-billed aull Bonaparte's gull Forster's tern Whip-poor-will Common nighthawk Belted kingfisher Hairy woodpecker Downy woodpecker Eastern phoebe Least flycatcher Tufted titmouse Brown thrasher Red-eved vireo Warbling vireo Eastern phoebe Least flycatcher Tufted titmouse Brown thrasher Swainson's thrush Northern shrike Tennessee warhler Nashville warbler Myrtle warbler Cerulean warbler Blackpool warbler Prairie warbler White-eyed vireo Mourning warbler Hooded warbler Wilson's warbler Canada warbler American redstart Baltimore oriole Rusty blackbird Cedar waxwing Scarlet tanager Indigo bunting Vester sparrow Chipping sparrow

Red-throated loon

Horned grebe Green heron Canada goose Snow goose Blue goose Black duck Pintail duck Shoveler duck Wood duck Redhead duck Lesser scaup Greater scaup Ruddy duck Cooper's hawk Bald eagle Marsh hawk Osprev Sparrow hawk Sora rail American coot Killdeer Common snipe Sanderling Herring gull Common tern Caspian tern Black tern Mourning dove Barred owl Tree swallow Bank swallow Barn swallow Cliff swallow Purple martin Blue jay Common loon Brown creeper House wren Winter wren Robin Wood thrush Hermit thrush Veerv Yellow warbler Pine warbler Palm warbler Ovenbird Yellowthroat Bobolink Cardinal Purple finch Pine siskin Tree sparrow Field sparrow Fox sparrow Swamp sparrow Song sparrow Snow bunting White pelican







