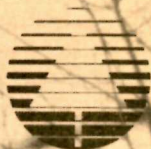


National Provincial Parks Association



Man's impact on Point Pelee National Park

J.G. Battin & J.G. Nelson

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Robin Fraser,
President,
NPPAC

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Chapter 1

Point Pelee: A Human Ecological Approach

This book reveals that the present Point Pelee landscape is quite different than any of the changing states through which it has passed in the last several centuries. Plant species composition and distribution, birds, fish, beaches, and marshes all have been changed not only through the long-time action of wind, waves, and other so called natural processes but especially as a result of the activities of European man following his invasion of the area during the 17th century. Since that time the Point Pelee area has been subjected to commercial trapping, fishing, lumbering, mining, drainage, cultivation, grazing, and other cultural processes. The current and future state of the park ecosystem can only be understood in terms of these processes.

Indeed as human ecologists we consider man to be a part of nature and not distinct from it. For, even though man's ideas and technology have led to many changes in the world and appear to set him apart from his surroundings, he is still very much an agency within the system in the same sense as other animals, glaciers, waves, wind, and running water. His hunting is basically no different than predation by wolves or cougars. The browsing and grazing of his livestock is similar to the feeding of deer, bison, or other plant-eating herbivores.

The activities of man are part of the entire set of interacting processes responsible for the state of the ecosystem or the landscape at some point in time, whether today or one hundred years ago.

How are we to organize, understand, and explain the erosion, deposition, lumbering, mining, and other interacting processes which have shaped the beaches, trees, and landscape of the Point Pelee area over the centuries? In the past we have generally attempted to do this through distinct disciplines such as botany, zoology, geology, geography, history, chemistry, and anthropology. While working within the general confines of these disciplines - or professional spheres of interest - scientists, scholars, and students have learned much about the anatomy of frogs, sediment movement along shores, water quality in marshes, the chemistry of soils, and other topics. But this learning is to a large degree private, separated from other researchers and the public by professionally useful but esoteric terminology and theory. Intense specialization within these disciplines contributes to this privacy and so to lack of integrated learning. Members of different disciplines often find it difficult to talk to one another, or the lay public, even at a relatively general level.

In this study an attempt is made to synthesize and generalize upon the work of many disciplines and so give the scholar, administrator, teacher, and especially the

recreational learner a broader integrated understanding of the changing Point Pelee landscape and the effects of man upon it. The key integrating concepts are ecology and process. Overall the study is ecological in that trees, plants, fires, grazing, hunting and other elements and processes are studied as part of an interacting system which changes in space and time. The basic environmental elements and processes are discussed in Chapter 2. In subsequent sections, the historic or changing activities of man are related to this environmental background. This is done by dividing the span of known human occupancy rather arbitrarily into periods characterized by one or more cultural processes or persistent forces of importance to landscape development. The hunting and fishing of pre-Caucasian man is the prime subject in Chapter 3. Caucasian exploration, surveying, settlement, and extractive processes are examined in Chapters 4 through 6. The draining of the marshes for agriculture, the intensified land use developments late in the nineteenth century, and the naturalistic, scientific, and other activities leading to the establishment of the national park are discussed in Chapters 7 and 8. In Chapter 9 we examine those cultural processes which continued on the peninsula after the creation of Point Pelee National Park in 1918. The operation of these and other processes after 1918 is discussed in Chapter 10. Chapter 11 summarizes the biophysical and cultural processes

which have shaped the Pelee landscape and contains commentary on the future.

Chapter 2

Basic Environmental Elements and Processes

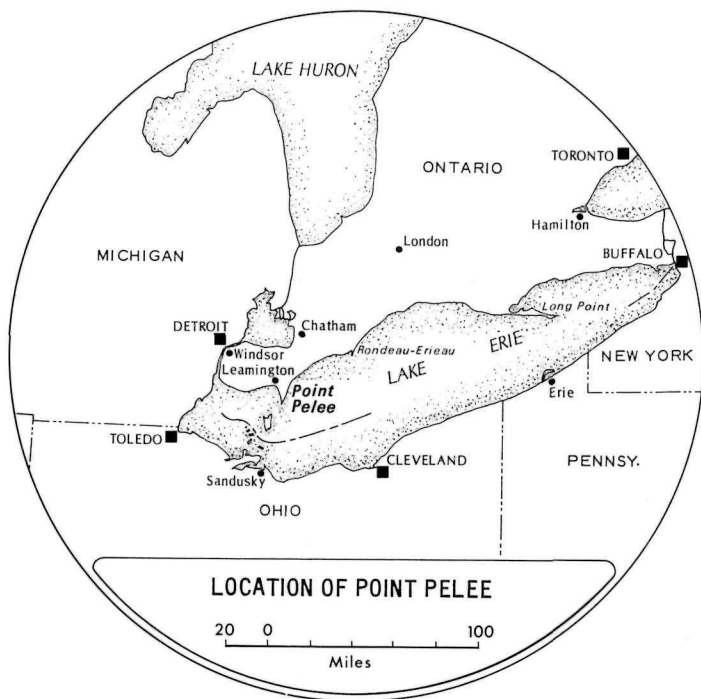
Point Pelee National Park (41 degrees 54' North Latitude and 82 degrees 22' West Longitude) encompasses a peninsula jutting some nine miles into Lake Erie (Figure 1). The peninsula is the southernmost tip of mainland Canada and essentially consists of two sand bars, or beach-dune complexes, enclosing 2700 acres of interior marsh representing about 66 percent of the total park area.

Climate

Point Pelee and adjacent coastal areas possess one of the warmest and vegetatively favourable climates in Ontario, if not all of Canada. The annual temperature is 48 degrees F. The January and July means are 26 degrees F and 70 degrees F respectively. The frost-free period is between 165 and 175 days. The growing season normally commences early in April and averages 218 days.

One of the unfavourable climatic features can be lack of precipitation, especially in summer. Drought conditions are apt to occur three years out of five.¹ Nevertheless Point Pelee's climate is conducive to the growth of a variety of plants which will be discussed more fully shortly. Another influential climatic element is wind, which prevails from the southwest across a 40 mile fetch of open water. One result is high waves and coastal erosion in the Point Pelee area.

Figure 1

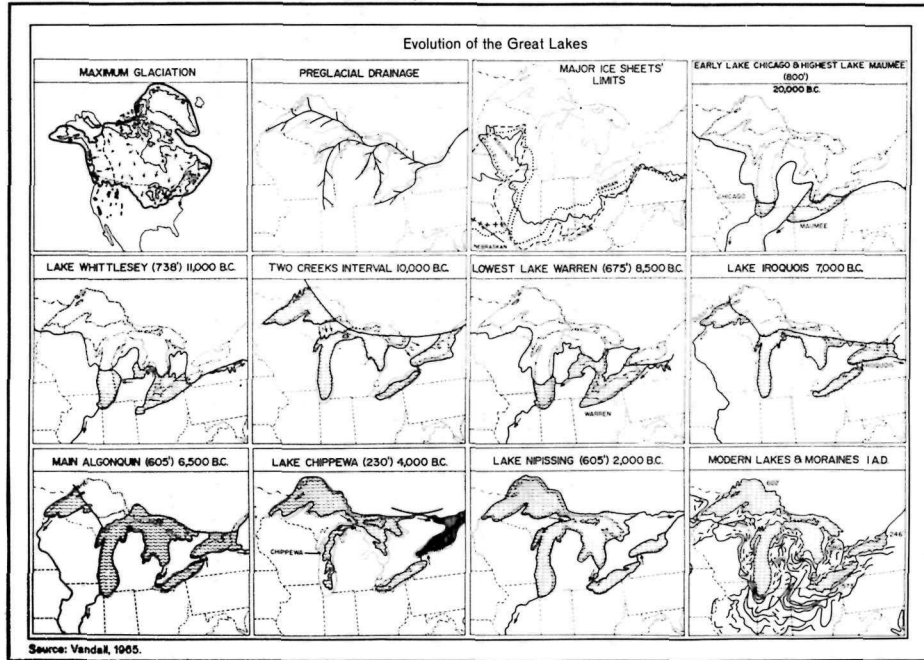


Erosion and Deposition

The processes of wave erosion and deposition have been and are of fundamental importance in the formation of Point Pelee. The beginnings and early history of the peninsula although obscure, are associated with the advance and retreat of late Wisconsin continental glaciers and the creation of a series of fluctuating lake levels - precursors of the present Great Lakes - during approximately the last 11,000 years (Figure 2). According to one authority much glacial debris was deposited on the higher bedrock ridges of what eventually became the floor of Lake Erie. Today two of these ridges divide the lake into three basins (Figure 1). The western basin is the smallest and shallowest. It has an average depth of about 24 feet and encompasses 13 percent of the total lake area and five percent of the volume. The basin seldom stratifies thermally during the summer because of its small size and shallow depth and large inflows from the Detroit, Raisin and Maumee Rivers.²

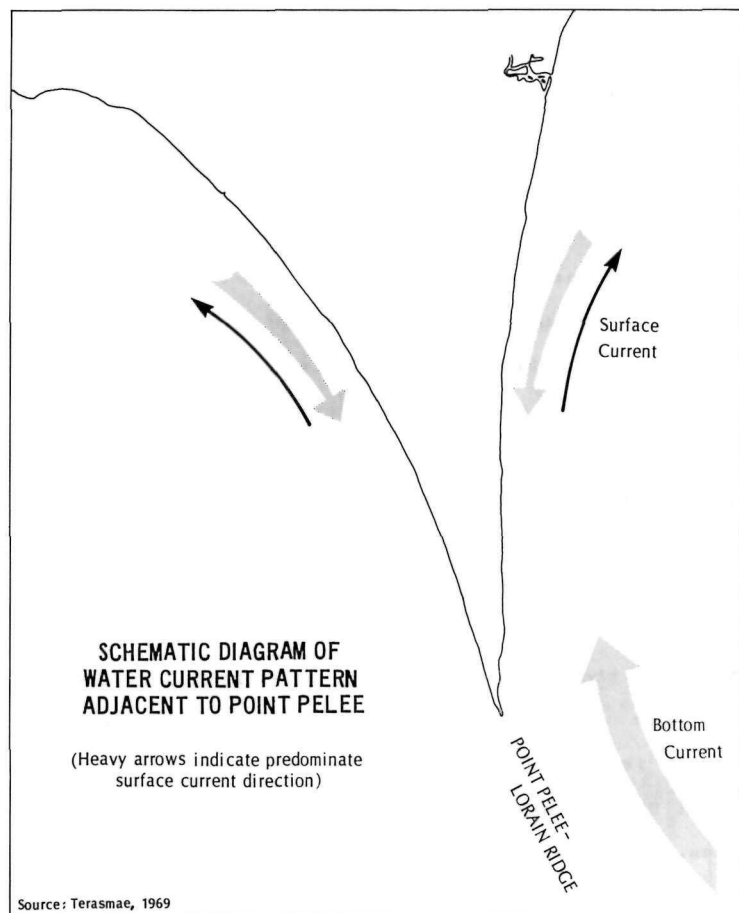
The central basin is the largest, averaging about 59 feet in depth. This basin is deep enough so that it stratifies in summer, with cooler heavier waters remaining closer to the bottom. Little overturning and mixing of water and dissolved oxygen occurs. The eastern basin is of less interest to the student of Point Pelee. This basin has an average depth of about 78 feet and encompasses 24 percent of Erie's surface and 32 percent of its volume.

Figure 2



According to some geologists, the Point Pelee - Lorain, Ohio ridge separating the western and central basins has greatly influenced the direction of current flow in western Lake Erie and so the building and shaping of Point Pelee (Figure 3).³ The transport of sand and other sediments onto the ridge reportedly has led to the development of two sand spits which eventually merged around an enclosed lagoon. This lagoon has slowly filled with sediment and muck to form the present Point Pelee marsh. Some measurements of shoreline erosion and deposition have been taken in the vicinity of Point Pelee during the last forty years. The results have been compiled by Coakley and Cho (1972) and show that present shoreline is quite active, with erosion being relatively pronounced west of Kingsville as well as on parts of Pelee's east bar or spit.⁴ To what extent this erosion and associated deposition is due to forces independent of man and to what extent they are due to the construction of groins, dykes, and other devices which interfere with sediment movement is a question that has bothered Point Pelee National Park managers and nearby coastline residents for decades. A variety of structural, vegetative, and other devices have been used within and outside the national park in attempts to achieve the nearly impossible and ultimately very expensive goal of preventing these processes from occurring as they have during the last several thousand years. Furthermore, the achievement of a high level of control over these processes could cause

Figure 3



additional perhaps unwanted changes in the marsh and other landscape elements and processes. But more will be said about this later, after discussion of fluctuating lake levels which fundamentally affect erosion, deposition, burning, and other processes at Point Pelee.

Fluctuating Lake Levels

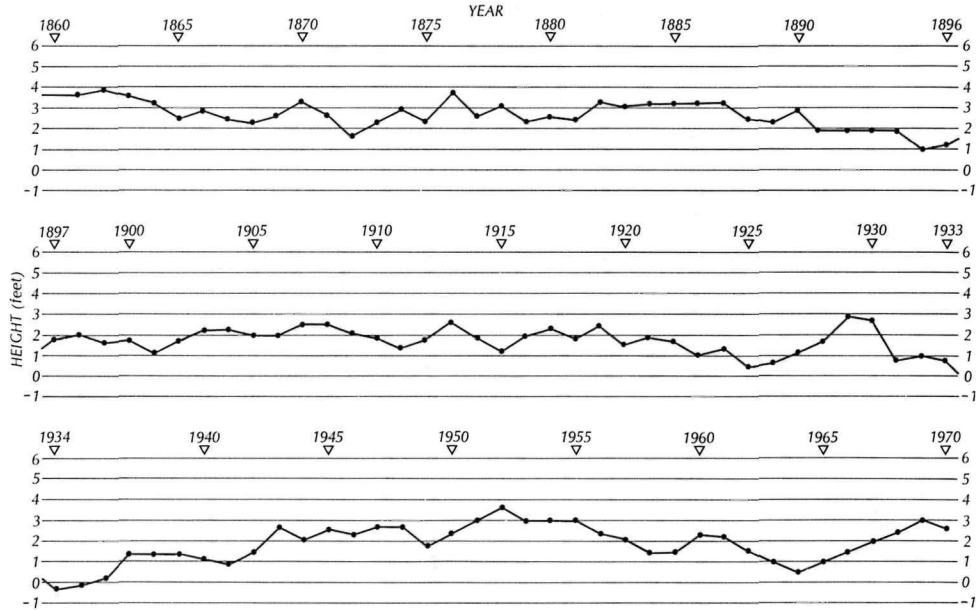
The record of lake level fluctuations is lengthy (Figure 4). At Cleveland, Ohio it covers the period from 1860 to 1973. The recorded low is 567.5 feet and the high 573.3 feet, for a range of 5.8 feet in 113 years. Low water usually occurs in November - December and high water in June - July. Annual fluctuations in level frequently exceed two feet.

The lake level has been below 569.3 feet in about 34 of the 113 years of record. Five times the levels have been below 569.3 feet for three or more years in succession: 1894-96, 1909-11, 1923-26, 1931-39, 1963-65. Water levels also were relatively low in 1864-73 and during the 1890's and early 1900's.

The 569.3 foot level is of special interest because Erie was at this elevation in the fall of 1922 at about the time an engineer conducted a survey of Point Pelee. He took several photographs, including one near the head of the marsh and the east beach (Figure 5). The photo shows that much of the marsh is exposed and relatively dry. A re-photograph at approximately the same site in fall, 1973, when the lake level was about 573 feet, shows

Figure 4

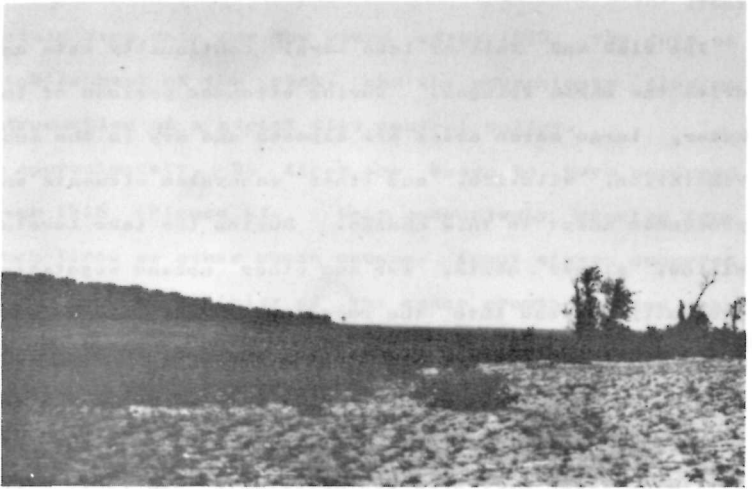
LAKE ERIE WATER LEVELS, PORT COLBORNE, 1860-1970



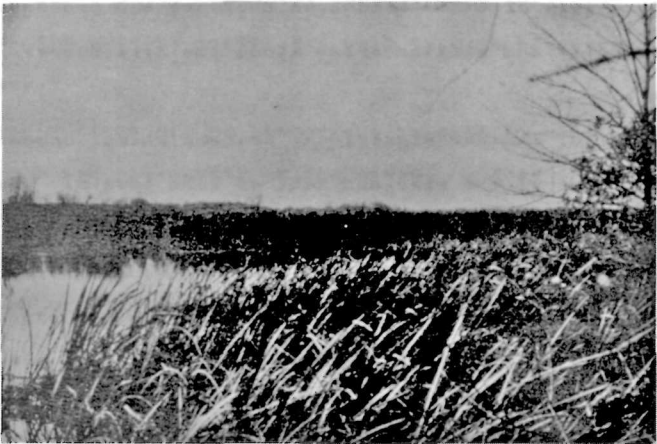
Source: Coakley and Cho, 1972

Elevations are in feet, referred to 1955 Great Lakes Datum (568.6)

Figure 5



(a) 1922 (Mills) The Point Pelee marsh during a low water period. Note the sparse vegetation cover and the encroachment of dryland vegetation on the marsh fringes.



(b) 1974 (Nelson and Battin) The Point Pelee marsh during a high water period. Note the dominance of cattails.

how far water and marsh extends onto the surrounding low ground with a vertical rise in lake level of about 4 feet.

The rise and fall of lake level continually wets and dries the marsh fringes. During extended periods of low water, large marsh areas are exposed and dry in the sun. Vegetation, wildlife, and other ecosystem elements and processes adapt to this change. During low lake levels, willow, silver maple, ash and other upland vegetation gradually extend into the receding marsh, along with deer, other herbivores, and their predators. During long high water periods, some trees fringing the marsh are damaged or killed and carp, turtles, and other marsh animals move into what once was relatively dry land. The rise and fall of lake levels is therefore a process of fundamental importance, primarily because of its effects on a network of other landscape elements and processes in Point Pelee and similar areas along the Erie shore.

Fire

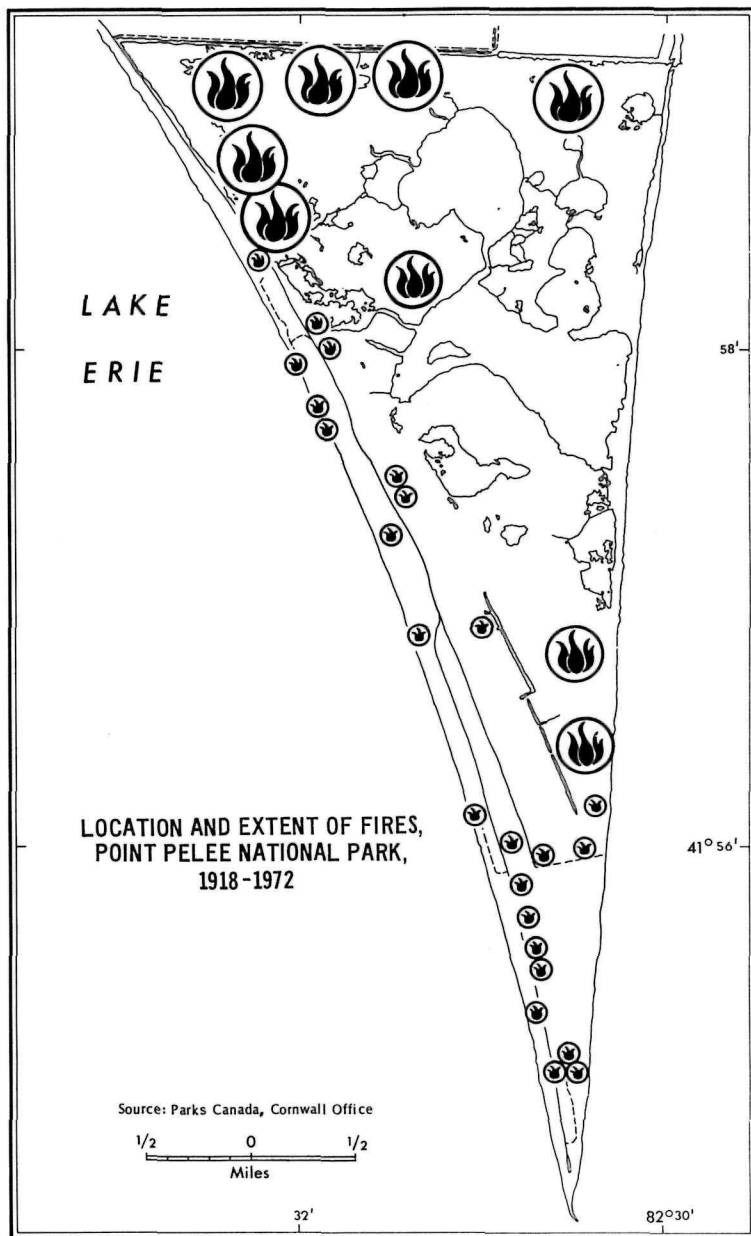
Fire is another significant process which appears to be affected by the rise and fall of lake levels. During low water periods, large areas of cattail, rushes, and other combustible vegetation dry to produce excellent fuel. Marsh fires are known to have limited tree and shrub encroachment and assisted in the maintenance of extensive marshes in the Everglades area, Florida. Similar effects could be expected in Point Pelee and other smaller marshes.

Fire records are rather scarce for Point Pelee area. Some references to burning are occasionally found in the nineteenth century literature. National park files also contain fire data for the years after 1918, the date of establishment of the park, and the approximate time of introduction of a strict fire control policy.

Approximately, 33 fires are known to have occurred after 1918 (Figure 6). Many undoubtedly started from brush fires or other human causes. About eleven occurred in the general vicinity of the cedar growth located near the southern end of the peninsula. At least nine occurred within the marsh itself. Some of these marsh fires must have occurred at low lake levels for they reportedly burned both vegetation and underlying organic debris, leaving basins in the marsh floor. These basins later filled with water as lake levels rose. Some of the ponds, for example Sanctuary Pond in the northwest section of the present marsh, are said to have originated in this way.⁵

Clearly fires are an important process in maintaining the depth and integrity of the marsh. What their frequency and extent was in pre and early European days is unknown. But any reduction in fires by national park managers or others during recent decades favoured accumulation of organic debris and infilling and termination of the marsh. Such changes become more important when it is recognized that nineteenth and twentieth century marsh

Figure 6



drainage and destruction along Lake Erie has left only a relatively small marsh area along both the Canadian and American shores. The value of these marshes for birds, fish, and other life will be discussed shortly.

Vegetation

Although now largely cleared of trees, in pre-Caucasian time southwestern Ontario was forested with maple, beech, red, white, and black oak, basswood, hemlock, and other trees. This forest cover is generally envisioned as having been very extensive, although some areas are known to have been cleared by Indian girdling, burning, and agriculture. Other areas, for example the lower Thames River valley and delta, are thought to have been covered by extensive areas of marsh and grassland.⁶

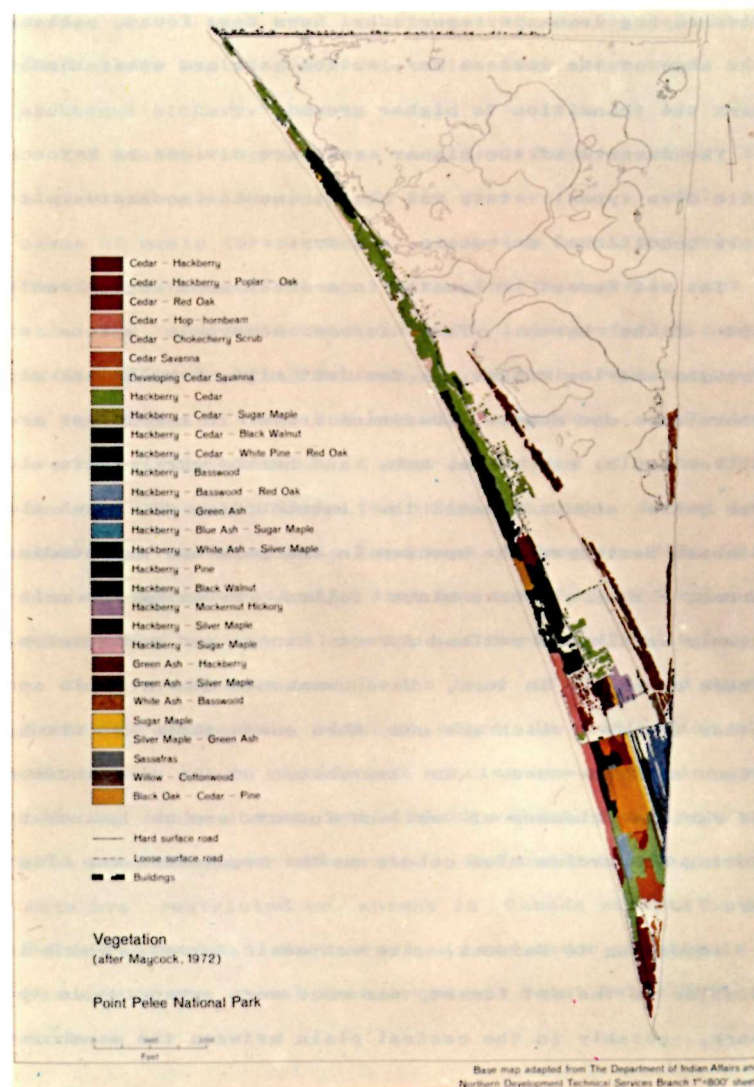
South of a line extending from about Grand Bend, on Lake Huron, to Toronto, is the area considered to have been dominated by the so called "Carolinian forest." Details on the species composition of this forest are not available. But trees and shrubs such as the tulip, black walnut, blue ash, sycamore, sassafras, pawpaw, red mulberry, and spice bush, occurred in this mild region and generally in no other in Canada. Some trees and shrubs such as red cedar, wafer ash, and fragrant sumac - all of which are important in Point Pelee - are generally thought to have been common in the Carolinian forest, although it is recognised that they range further north and east in Ontario as well. Within Point Pelee itself,

the wafer ash reportedly achieved its greatest concentration in Canada. Certain interesting grasses and forbs also are considered to have been restricted to the point, among them sand grass, swamp rose mallow, prickly pear (of western dryland fame) wild potatoe-vine, and flowering spurge.

However it is extremely doubtful that Point Pelee's pre-Caucasian vegetation bore close resemblance to the common image of the Carolinian forest of southern Ontario. Indeed, the plant species and associations on the beaches and dunes of Pelee appear to be the unique result of the interaction of post-glacial plant migration across Lake Erie via a possible Lorain, Ohio-Point Pelee land bridge, as well as dry sandy soils, relatively frequent droughts, and other local influences, including lumbering and other activities of Caucasian man. Today nearby sandy peninsulas, - such as Rondeau and Long Point - contain different species and associations than Pelee and this was probably true in the past as well.

Maycock's (1972) recent detailed studies of Point Pelee vegetation have greatly advanced knowledge of the peninsula's plants.⁷ The complexity of the vegetation is reflected in his map (Figure 7). For ease of understanding the plants can be divided into two units: 1) The marsh and; 2) the forests of the dunes and other higher ground.

Figure 7



The marsh vegetation has not yet been mapped in detail. Many of the plants apparently grow on a floating mat of cattail roots and decaying humus. On some pond borders bog remnants reportedly have been found. Along the edge of the western bar, button carr and other shrubs mark the transition to higher ground.⁶

The forests of the higher areas are divided by Maycock into five types: wet, wet mesic, mesic (moderate moisture conditions) dry-mesic, and dry.

The wet forest is located in a small area on the south end of the marsh. This forest occurs in a zone of troughs and low ridges, a few feet high, which mark old shorelines and dunes. Dominant trees in the forest are silver maple, red maple, ash, and hackberry. White elm was quite abundant until the introduction of Dutch elm disease destroyed the species in the park and surrounding areas. Many elm have since fallen, breaking the relatively continuous wetland forest canopy and root system. These changes, in turn, have weakened nearby maple and other trees, which are now more susceptible to strong winds and blow-down. An impression of the distribution of various classes of wetland forest can be gained by noting the medium blue colour on the vegetation map (Figure 7).

According to Maycock, the wet-mesic forest, which is similar to the wet forest, was once more extensive in the park, notably in the central plain between the marsh and

the higher western dunes. This, however, is the area that has been most affected by Caucasian agriculture during the last one hundred years. In one relatively undisturbed area, the most important tree species are white elm, silver maple, green ash, white ash, bass wood, and mockernut hickory.

The mesic, dry mesic, and dry forests occupy the higher and greater part of the western bar. Only two areas of mesic forest occur, one being north and west of the Henry Community Camp in the north central part of this bar, and the second near the interpretation centre and so-called Woodland Reserve. In both areas hackberry is the dominant tree, and red oak, basswood, and walnut are relatively common. A rich assortment of herbs forms the understory. These two areas of mesic forest have been seen as especially important because: "it is on these sites theoretically that the most highly developed, terminal or perhaps climax type of forest will develop."⁹

The dry forests occupy the tops of the sand dunes. Hackberry dominates, although often in combination with red cedar. Less significant species are white pine, red oak, and choke cherry, while black walnut, black oak, and iron wood are minor elements. Red cedar-hackberry forests are restricted or absent in Canada except on the Pelee Peninsula. Hackberry and red cedar constitute 60 percent of the total tree cover of Point Pelee National Park.

Succession from beach to forest on the western bar is envisioned as follows. In the wave-wash zone, next to the lake, algae and other plants and animals grow and die, gradually adding organic matter and other nutrients to the soil. Above the wave-wash zone, sand-binding plants such as sea-rocket begin stabilizing the sand. On the adjoining inland sand plain grow grasses, forbs, and shrubs such as panic-grass, bearberry, and wormwood. As the sand grains are held, and a thin vegetation and soil cover develops, clumps and thickets of ground juniper, fragrant sumac, wafer ash, chokecherry and other shrubs form. Excellent stands of juniper occur south of the northwest beach, along the western dunes. Red cedar, red and black oak, and other trees gradually invade thickets, shading out the light-demanding species of early successional stages. Eventually the red cedar, is overgrown and gradually shaded out by hackberry, walnut, and other species more tolerant of the low light on the floor of the darkening forest.

However, this rather idealized successional model apparently does not hold on the east bar, the southern end of the peninsula, nor other parts of Point Pelee National Park. In fact, no detailed vegetation mapping of the eastern bar has been completed. The tree cover seems to be composed largely of clumps of willow, and cottonwoods, as well as associations of low shrubs, grasses, and forbs.

Reconnaissance field work on both the western and eastern bars indicates that much vegetation change has occurred in the last 50 to 100 years. 1922 photographs of the western bar indicate that the beach, sand plains, and fore dune areas were largely free of grass, forbs, wafer ash, and other now common shrubs although juniper seems to have been a conspicuous early successional plant, for example at the northwestern beach (Figure 8). The 1922 photographs, and field studies, also indicate that red cedar, oaks, and some hackberry were dominant along the inland dunes at that time. More hackberry has since grown up and begun to shade out the cedar. Tree ring studies in the vicinity of the northwest beach support the suggestion that most of the hackberry growth is relatively recent; many of the 33 larger trees that we dated are about 50 years old.

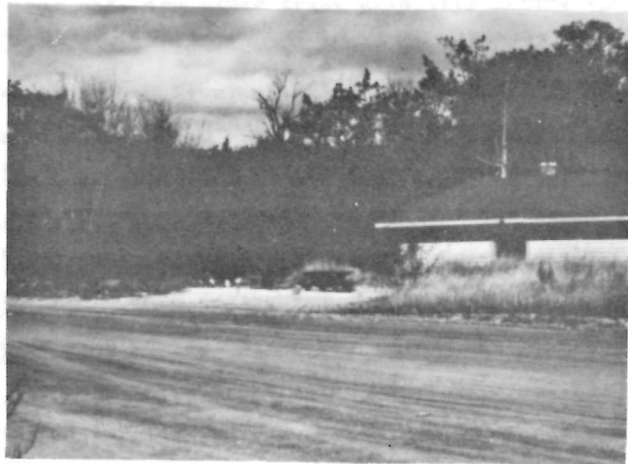
1922 photographs of the eastern bar indicate that trees were uncommon and that the vegetation was largely grass, forbs and low shrubs (Figure 9). Houses and other signs of the fishing activity are quite apparent in the 1922 photographs. 1973 photographs show that willows, cottonwoods, and other trees and shrubs have begun to cover increasingly large parts of the eastern bar. Any ecological order in these recent vegetation changes remains unknown.

Field study and comparison of 1922 and 1973 photographs also reveals considerable change in the composition of the red cedar forests located in the central

Figure 8

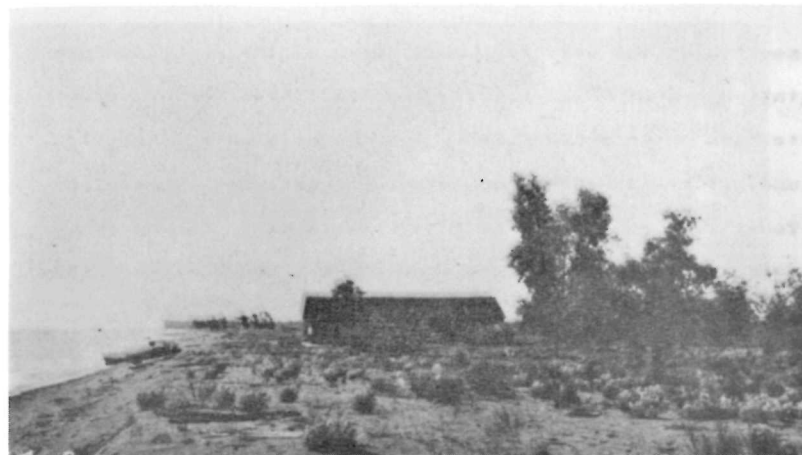


(a) 1922 (Mills) Facing northeast along the West Beach. Note the lack of grasses, forbs, and small shrubs. Juniper and cedar predominate in the foredunes with large oak and hackberry present in the background.



(b) 1974 (Nelson and Battin) Facing northeast along the West Beach. Change on the fore and back dunes is dramatic. Hop trees and other hardwoods are now present along with grasses and shrubs.

Figure 9



(a) 1922 (Mills) Looking south along the East Beach opposite the marsh ponds showing the Campbell Brothers twine and fish house. Note the sparseness of vegetation, particularly the grass and forb cover.



(b) 1974 (Nelson and Battin) Looking south along the East Beach. With the removal of the fishery and the passage of time, regeneration has occurred. Panic grass, staghorn sumac, willows, and other shrubs appear to be important colonizers. Red cedar is also visible.

section of the west bar, just north of the park interpretation centre (Figure 10). In 1922 these forests appear to have been predominantly red cedar with a very light understory of shrubs or other successional vegetation. Today this red cedar is interspersed with hackberry and other hardwoods which are crowding out the early coniferous growth. A much more vigorous undergrowth is also apparent in the 1973 photographs. The 1939 photograph (Figure 11) of the red cedar savannah formerly located near the tip of Point Pelee is of special interest in that it may indicate what large parts of the Point were like in pre-park or even pre-European days. Pelee is said to be a French term for "bald". We have, however, found little actual evidence of extensive grassland and red cedar savannah on Pelee in earlier times.

What has caused the vegetation changes of the last 50 to 100 years on Point Pelee? Many of the changes are probably related to shifts in land use or cultural processes. For example, hackberry may not have been very numerous in the park until about 1900. Many of these trees could have been introduced by residents and cottagers at about that time. If so, the tree spread very quickly between about 1900 and 1973. This rapid diffusion of the hackberry may have taken place because few understory plants were available to compete with it on the forest floor at the time of its introduction. During the early decades of the twentieth century, cottagers and

Figure 10



(a) 1922 (Mills) View on roadway fronting Lot 6. Note the dominance of red cedar, little undergrowth and brushed appearance.



(b) 1974 (Nelson and Battin) In the same general location. Note the mixed red cedar and hackberry stands and the luxuriant undergrowth that have developed as a result of the gradual elimination of clearing and underbrushing.



(a) 1939 (Lewis et al.) Open growth of red cedar (cedar savannah) just north of the tip of the peninsula. Note the manicured appearance of the park landscape.



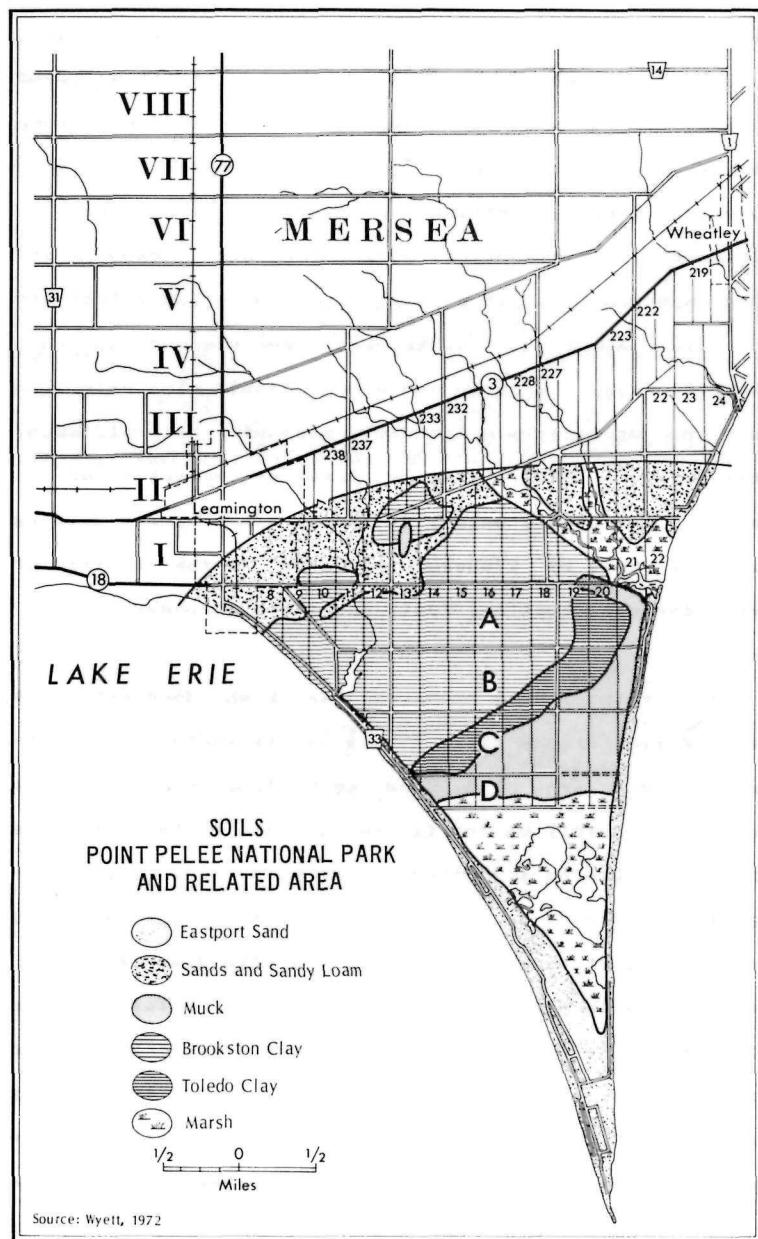
(b) 1974 (Nelson and Battin) Succession of grasses, staghorn sumac, and other growth in the same general location.

park residents are known to have cut, burned, and cleared undergrowth over large areas. Such activities could account for the lack of undergrowth in the 1922 red cedar forest photographed near the interpretation centre. However, forest clearing was gradually discouraged by national park authorities after 1918 and hackberry and other species could then have begun to spread relatively quickly. Prior to 1900 browsing and grazing by deer, rabbits, pigs, horses, and other animals also helped to keep the understory down; but more will be said about this later. The relatively treeless character of the east bar may be due mainly to former browsing and grazing of stock kept by fishermen and also to the cutting of trees for construction, fuel, and other purposes.

Soils

Relatively little research has been done on Point Pelee soils (Figure 12). Those on the western and eastern bars have been classified as Eastport sands. These soils form mainly on the flanks and the hollows of dunes where most leaves and other litter accumulate. In a generalized Eastport soil profile, beneath an approximately one-half inch organic A layer is a thin grey A horizon perhaps two inches thick. A yellow sandy B layer, less than one inch wide, may occur below this. But it is often absent. The underlying parent material is normally grey sand. Some evidence of thin buried soil profiles has been found. But more study is necessary to determine

Figure 12



the distribution and possible significance of these profiles to our understanding of environmental changes in Point Pelee.

Fauna

Although animals such as the bear, bobcat, wild turkey, ruffed grouse, passenger pigeon, and sturgeon are now extinct, or very rare in Point Pelee National Park, a large and diverse fauna still lives there permanently or seasonally. Birds are probably the most striking element of the present fauna, attracting naturalists and amateur bird watchers from hundreds of miles away each spring and fall. Two major North American flyways, the Atlantic and Mississippi, overlap at Point Pelee and the process of transcontinental migration can easily be observed and studied on the peninsula. The recognition of Pelee as an outstanding bird area was a basic factor in the creation of Point Pelee National Park.

Since 1877 when the first records were published, the total number of bird species reported for Point Pelee is 326. Of these, forty species have only rarely been seen and are on the hypothetical list.¹⁰ 103 species are known to have nested or bred on Point Pelee between 1877 and the present. Not all of these birds nest in the summer however, some doing so as early as March. Among the summer residents for which no nesting has been reported are the eastern bluebird, rufous-sided towhee, savannah sparrow, vesper sparrow, and oven bird. Nesting bird popula-

tions do, of course, change with time. In 1957 a few rare Bewick's wrens constructed three nests in the park. But this promising beginning was aborted by the destruction of two nests by enthusiastic birdwatchers anxious to look at both nest and eggs.

The large size of the visiting or resident bird populations is not generally appreciated. For example, Point Pelee and the agricultural lands located just to the north are preferred loafing and feeding areas for many gulls and terns. On July 29, 1963, approximately 10,000 gulls reportedly were observed in the onion fields adjoining the park. During their migration, huge flocks of swallows visit Point Pelee. One flock within the park was estimated to contain 10,000 birds. Flocks of 1000 to 5000 are not uncommon.

The size of some bird populations undoubtedly has increased through the clearing of forests, the cultivation of crops, and other disturbances by man. Many small birds are more numerous on the nearby farmlands than in the park itself. These birds include bobolinks, meadow larks, killdeers, horned lark, and upland plover.

However, the marsh is a very significant habitat for birds, including mallards, blue-winged teal, long-billed marsh wrens, Virginia rails, herons, and bitterns. Amid the vines and shrubs of the forests are found cuckoos, flycatchers, vireos, indigo buntings, yellow breasted chats, cat birds, brown thrashers, and cardinals.¹¹

Mammals are still numerous in Point Pelee, although the whitetail deer population is now estimated at only about 35. These animals are thought to have numbered about eight in the late 1940's and have led a precarious existence since. Other mammals include coyotes, red fox, raccoons, skunks, muskrats, mink, long and short tail weasels, cottontails, mice, voles, and shrews.

Many reptiles, amphibians, insects, and other animals also occur in the Point Pelee area. Soft-shelled turtles and fox snakes are rare in the park and believed to be extinct in the rest of Ontario. Point Pelee is well known for its fall migrations of monarch butterflies which rest on the peninsula on their way South across Lake Erie.

The present Point Pelee fish population can be divided rather arbitrarily into two groups; those of the marsh and the lake. However, spawning and other movements do connect these two areas. The marsh fish include species such as bowfin, northern pike, carp, sunfish, bullhead, and large mouth bass. The carp, an exotic introduced into the Great Lakes in the nineteenth century, is believed to be the most numerous species. Its browsing has been blamed for the disappearance of wild rice and elimination of game fish from the marsh.¹² The lake fish include perch, freshwater drum, small and large mouth bass, and white bass. Walleye, muskellunge, sturgeon and other species also are still found in the vicinity of

Point Pelee, but are much reduced from their former populations.

At the time of settlement, the great quantity and variety of fish inhabiting the lake and its tributaries included many of the preferred food and game fishes - small mouth and large mouth bass, muskellunge, northern pike, and channel catfish inshore; and lake herring, blue pike, lake whitefish, lake sturgeon, walleye, sauger, freshwater drum, and white bass in the open lake. Even lake trout maintained a moderate population in the eastern end of the lake. Some of these species moved into tributaries to spawn and were readily captured by Indians and the early settlers. Today, the blue pike, sauger, and native lake trout are gone; very few sturgeon, lake herring, lake whitefish, and muskellunge remain; and the numbers of walleye and northern pike are greatly reduced. The present fish community is presently dominated by yellow perch, white bass, channel catfish, freshwater drum, carp, goldfish, and (another exotic) rainbow smelt.¹³

Footnotes

- 1 W. Wyett, Point Pelee Interpretive Plan Concept (Ottawa: National and Historic Parks Branch, 1972), p. 13.
- 2 H.A. Regier and W.L. Hartman, "Lake Erie's Fish Community: 150 Years of Cultural Stresses", Science, Vol. 180 (1973), pp. 1248-1255.
- 3 Wyett, Interpretive Plan, p. 7.
- 4 J.P. Coakley and H.K. Cho, "Shore Erosion in Western Lake Erie", Proceedings 15th Annual Conference on Great Lakes Research (International Association for Great Lakes Research, 1972), pp. 344-360.
- 5 C.H.D. Clarke, Marsh Management, Point Pelee National Park (Ottawa: Canadian Wildlife Service, 1942), p. 15.
- 6 F.C. Hamil, The Valley of the Lower Thames 1640 to 1850 (Toronto: University of Toronto Press, 1951).
- 7 See, for example, P.F. Maycock, An Ecological Study of the Forests of Point Pelee, Essex County, Ontario (Ottawa: National and Historic Parks Branch, 1969-1972); P.F. Maycock, Ecological Relationships of the Forests and Other Upland Vegetation of Point Pelee National Park, Essex County, Ontario (Toronto: University of Toronto, Erindale College, Department of Botany, 1970).
- 8 Wyett, Interpretive Plan.
- 9 Ibid., p. 22.
- 10 G.M. Stirrett, The Summer Birds of Point Pelee National Park (Ottawa: Queen's Printer, 1973).
- 11 Ibid.
- 12 Letter, F.H. Conover to J.B. Harkin, November 17, 1919, Government of Canada, Public Archives, Manuscript Division, File P296, Vol. 1.
- 13 Regier and Hartman, "Cultural Stresses", p. 1248-1249

Chapter 3

5. Pre-European Man

The length of time that man has lived in the Point Pelee area is unknown, although it probably includes the entire post-glacial period and exceeds ten thousand years. This estimate is based on the results of the extensive archeological research conducted in the Great Lakes area during the last several decades. Within the park itself, archaeological investigations have been few and have not revealed a very lengthy human record, although work by Sanderson in the early 1930's, Lee (1951) and Keenlyside (1972) indicates that Indians have inhabited the peninsula for centuries.¹

Keenlyside has organized pre-Caucasian human occupation of the Point Pelee area into four periods:

- Period 1 : 600-700 AD
- Period 2 : 700-900 AD
- Period 3 : 900-1100 AD
- Period 4 : Post 1100 AD

Period 1 : 600-700 AD

Two sites on Point Pelee are representative of this period. Both are situated on the eastern side of the prominent north-south sand ridge which forms the backbone of the western bar. The marsh and lakeshore, lying two hundred to three hundred yards to the east and west, are easily accessible. The sites appear to have been occupied several times, for short periods, possibly by the same group returning in successive years.

Marsh proximity is strongly reflected in the faunal collections. Muskrats, turtles, waterfowl, and fish remains are plentiful and probably indicate the main food sources; the occasional deer or elk supplementing this diet. Some squirrel, raccoon, rabbit, and chipmunk bones have been found, these small mammals possibly being principally valued for their furs. The absence of migratory bird remains suggests summer occupation of the sites. Evidence of cultigens or wild plants is absent from the collection. Signs of a twenty foot square wooden shelter were discovered. Stone projectile points, food processing implements, ceramics, and specialized woodworking tools were also found at these sites. Dorsal fish spines, hardened at the tip through heating were also common.²

Period Two : 700-900 AD

Near the end of the eighth century A.D. a number of changes took place in the Pelee area. Archaeological evidence for these changes comes from two excavations situated close to the previous two sites, on the eastern slope of sand ridges adjacent to the marsh. Both sites are believed to have been used in summer by relatively large groups which returned to the same camp for many years.

These people apparently relied to a greater extent on large land mammals, particularly deer, but turtles, muskrat, fish, and waterfowl remained extremely important in

the diet. The remains of small fur-bearing animals also are strongly represented at these sites. No signs of the use of cultivated plants or agriculture were uncovered. Many implements for hunting, butchering, cutting, scraping and woodworking were found, as well as ceramics and evidence of housebuilding.

Period Three : 900-1100 AD

Near the close of the ninth century A.D. a marked cultural change apparently took place in the Point Pelee area. Seasonal habitation sites are more numerous and exhibit signs of greater cultural diversity.

As in previous periods, faunal remains indicate exploitation of a diverse and relatively rich environment. The marsh was hunted for turtle, muskrat, and waterfowl, and the forested areas for large and small mammals. Some corn appears to have been grown at this time, on a relatively small scale. It may have been produced on plots situated upon the open sand dune areas on the eastern side of the western bar.

Period Four : Post 1100 AD

Archaeologically, the four to five hundred years following period three do not appear to be well understood. The Pelee area may not in fact have been regularly used or occupied by natives at this time. This avoidance could have occurred because the area served as a buffer zone separating the aggressive Iroquois to the east and other agriculturalists and hunters to the west and

north.³ During the seventeenth century, when Europeans first began to come into the Pelee area, much of the north Erie shore was dominated by agriculturalists and hunters, such as the Neutral Indians. Their hunting and agricultural activities, emphasizing the production of corn and beans, may not have been much different than those of the people who lived at Point Pelee between 900 and 1100 AD.

Fire is known to have been used by these eastern woodland peoples as a tool for hunting and driving game, increasing the growth of berries and other early successional plants, and clearing the forest for agriculture. However, no direct evidence has been found to indicate that fire actually was used for these purposes by the Neutrals or others in the Point Pelee area. Lightning and man-made fires presumably occurred in the marsh and nearby forests from time to time. But nothing can be said about their frequency nor their effects.

Footnotes

- 1 See, for example, T.E. Lee, "A Preliminary Report on an Archaeological Survey of Southwestern Ontario for 1949", Annual Report of the National Museum of Canada for the Fiscal Year 1949-1950 (Ottawa: Department of Resources and Development, Bulletin No. 123, 1951), pp. 42-48; D.L. Keenlyside, Late Prehistory of the Lake Erie Drainage Basin - the Point Pelee Region (Ottawa: National Museum of Man, Archaeological Survey of Canada, 1972).
- 2 Ibid., pp. 3-7.
- 3 D.L. Keenlyside, Personal Communication (October 25, 1973); Keenlyside, Late Prehistory, P. 18.

Chapter 4

6. The European Invaders or Explorers: c1670-1790

Only a comparatively small number of European travellers, traders, soldiers, and missionaries seem to have travelled through the Pelee area in the early years, most "white men" apparently preferring to use the northern route from the Ottawa River through Lake Nipissing to the French River, Georgian Bay, and the country farther west. Furthermore, the Europeans who did visit the Pelee area did not record much information on wildlife, plants, or other relevant ecological detail.

Dollier and Galinee, two Roman Catholic priests, are the first white men known to have described the Point Pelee area. In 1669 and 1670 these Frenchmen travelled from Quebec, along the north shore of Lake Ontario, overland to Lake Erie, and along the north Erie shore to Point Pelee and, eventually, Sault Ste. Marie. They left behind better information on Long Point and Rondeau than Pelee peninsula. Large numbers of deer and other wildlife were recorded on the first two peninsulas. The Frenchmen actually took part in a deer hunt on Rondeau, a number of deer being driven into the water, killed and smoked for future use. After loading their "fresh and smokey meat" the travellers moved on to Point Pelee, reaching this "long point" on March 26, 1670. Little is said about the area, beyond noting the fine beach off the east bar.¹

In 1721, Pierre Francois Xavier Charlevoix, a Jesuit priest, visited the Point Pelee area, noting that:

On the 4th (of June) we spent a good part of the day on a point which runs north and south three leagues and which is called Pointe Pelee. It is, however, well enough wooded on the west side but the east side is a sandy tract of land with nothing but red cedars that are quite small and not in abundant quantity . . . there are a great number of bears in this part of the country and last winter more than 400 were killed in Pointe Pelee alone.²

In 1749 Joseph Gaspard de Levy wrote a rather detailed account of the portage used to cross the Pelee Peninsula.

July 24, we left before daybreak; at 10:00 o'clock in the morning I portaged over La Pointe Pelee; one league from the said Pointe this portage is 3/4 of a league long. It is necessary to carry the canoe for six arpents in order to enter into a marsh where there is enough water, and on getting out of it you have to make another portage of 14 arpents. Then you are on the other side, a league and a half from the tip of La Pointe Pelee. Thus you have saved 1 3/4 leagues of travel and you have bypassed the most dangerous point of the lake. This portage could easily be arranged so that the 3/4 league crossed by water in the marsh would be easy by cutting the trees that have fallen in it. Some canoes that have tried to round La Pointe Pelee were wrecked. Even though the wind was not very strong the waves break with great force.³

In 1768 John Lees, a merchant and traveller from Quebec, also wrote of the Pelee portage, navigation dangers, and rapid rates of erosion and deposition.

The portage is made at many parts of this point of land, as the weather suits incoming over the Lake: The doubling of this point is reckoned very dangerous on account of a long point of land that runs off. The treachery of the Pointe is not lessened by

the fact that its shape and length are subject to change.⁴

Interest in the granting and cultivation of land in the Point Pelee area apparently was expressed as early as 1789 by a group of Pennsylvania Quakers.

. . . the board promised to grant . . . each head of a family . . . 200 acres in a township to include Point Pelee, provided they . . . subscribed to the declaration of fidelity before July 1, 1790. The grant of the whole township would have to await the approval of Lord Dorchester.⁵

The commentary of settlers who moved into the Pelee area in the early 1800's also casts light on the character of the area, and the impact of the white man upon it. One of the Delauriers', who reputedly were the first Caucasians to occupy land in the area, is quoted in the June 16, 1923 Border Cities Star as distinctly remembering the story of Point Pelee as told by some of the later Indians and also by some of the older residents.

French voyageurs followed the rivers and lakes from Quebec and when they came to Point Pelee they saw it would shorten their trip considerably by crossing the narrows. When they came to what is now known as Hillman Creek, they pushed their bateaux (boats) through the reeds and entered the lagoon, now named the Big Pond, and came to the narrows where their boats were carried to the west shore of the point and again put into the water. On their trip down the lakes they stopped only a short time but on their return they found it was necessary to replenish their stock of food and remained for a short time.

They camped on the Point over night and the next day a number of men were sent out into the woods to hunt deer and other animals which would be used as food.⁶

Although this statement is rather vague, it and the previously quoted sources of information raise some significant points about the ecological history of the Point Pelee area. The passage of increasing numbers of travelers and traders undoubtedly put considerable pressure on the deer, bear, and other animals of the peninsula. Aside from being used for subsistence, these animals, and others such as the beaver, muskrat, and fox, undoubtedly were heavily hunted for the fur trade. French-Canadians and Metis undoubtedly took a direct part in this hunting at least occasionally. But much of it would have been carried out by the Indians. The demand was, of course, almost limitless, as the furs and skins were being obtained for large growing external markets in Europe and the Old World, and not for the needs of a relatively small local Indian population, as was the case prior to the coming of the white man.

The pre-Caucasian animal population of the Point Pelee area is impossible to estimate. Small streams in the vicinity of the Point, such as Hillman and Sturgeon Creek and their tributaries, seemingly would have provided suitable habitat for many beaver and other small fur bearers. The suggestion by Charlevoix, that hundreds of bears were present in the Pelee area is, at first, difficult to accept, although we do not know how many square miles he included in the term, "area". Perhaps the area was not too large. For the subsistence base available to

bears and other large animals undoubtedly was much greater in the past than now. Not only could bears feed on berries, roots, leaves, and other vegetation but also on other food, including fish. Large quantities of sturgeon, in particular, are known to have moved into the marshes and creeks of the Pelee area to spawn. Many bears could have been maintained by these fish. In fact these animals could have come into the Pelee spawning grounds each spring from some distance away. At that time they would have been quite vulnerable to Indian and later to European hunting.

- ¹ L. Bevan, History of Point Pelee National Park (Ottawa: Department of Indian Affairs and Northern Development, National and Historic Parks Branch, 1972), p. 5.
- ² Ibid., p. 6.
- ³ F.S. Snell, ed., Leamington's Heritage (Toronto: University of Toronto Press, 1974), p. 179.
- ⁴ "When Indians Roamed Point Pelee", Leamington Post and News, June 28, 1956, p. 1.
- ⁵ F.C. Hamil, "Quakers Sought Point Pelee Land in 1789", London Free Press, October 30, 1948.
- ⁶ E. Anderson, "All Clothing Made By Hand". Border Cities Star, June 16, 1923.

Chapter 5

The Surveyors and Squatters: c1791-1830

Although the first permanent European settlers apparently did not take up land in Mersea Township just north of Point Pelee until about 1820, land surveying preceded these residents by approximately thirty years. The first permanent settlement on Pelee peninsula itself, did not occur until about 1832.

In 1791 Patrick McNiff ran a survey from Pointe Aux Pins (Rondeau Peninsula) to Lake St. Clair. His account of Point Pelee is as follows:

From west side of Pointe Aux Pins to east side of Point Pelee a broken country where no settlement can be made to front on the lake.

From east side of Point Pelee to commencement of the new settlement (Detroit) 16 miles, good land here also the general plan of survey may be complied with, but the only place in that space where a town can be laid out is on very high land where no access could be had to the Lake nor any harbour for watercraft, but on this high land are plenty of springs.¹

In 1791 Iredell conducted a survey of Mersea Township and produced a sketch map of the peninsula which shows a portage, some cabins, and Indian cornfields. The builders or occupants of the cabins may have been Metis, transient Caucasians, or, perhaps, Indians. The formerly much greater extent of the Pelee marsh is indicated on this map as well. Yet the extent and character of the marsh did not dissuade Iredell from surveying its northern portions into lots for settlers.

In 1805 and 1806 Thomas Smith surveyed the Point Pelee area. His records provide glimpses of the pre-Caucasian landscape, its inaccessibility, and the difficulties of surveying and settling low-lying areas in Essex county.

The land is both well forested well timbered and the soil excellent - but the water bad . . . crossed the Big Marsh with much difficulty - the water in some places three feet deep - a quagmire, apparently having been a lake at some early period. The land generally very good timbered with walnut cherry elm . . . hickory and oak . . .

Sturgeon Creek is mirey and full of weeds and commonly shut at the mouth by a sand bar. Navigable with a batteau about 70 chains.

Friday - Ran the 1st Con. line . . . in Point Pelee marsh. The marsh a quagmire not passable. The land . . . low and swampy. Con A . . . the land rich and well timbered but in general wet.

Sunday - Took the meanders of the Lake . . . to the end of Point Pelee and examined the shoal off the point and the depth of the water thereon lying between 2 & 3 feet. Discovered a current off the Point to set SouthEast at the rate of one mile per hour. It may be owing to the wind being then from the South West and not from a regular flux. Excellent ground to draw a scene-pass in abundance. Being foggy for several days I lost the opportunity of ascertaining the distance from the Point to Pele Island by an intersection.

Monday - Surveyed the East side of the Point and returned to our encampment at Sturgeon Creek. The strip of woodland on the west side of Point Pele is excellent - timbered with oak, hickory, and some scattering of cedars. The marsh is not passable and has a small lake fed by Goose Creek (and Goose Creek is commonly blocked at the mouth by a sand bar until the swelling of Goose Lake forces a channel.) No current in Goose Lake - famous for muskrat . . .

Pt Pele marsh is covered with water and in some places a quagmire and never can be improved.

In the three townships of Colchester, Gosfield and Mersea not above the third part of them is habitable - extensive swamps and morasses perilous places - thickety and the water throughout stagnant and ruinous. The Survey has not been able to keep a party two weeks complete for sickness. McNiff and a party of soldiers attempted to run a line from Lake Erie to Lake St. Clair about the year 1790. Some of the men died in the weeds, others afterwards in the hospital.²

. . . such an abominable country as the three townships of Colchester, Gosfield and Mersea I never before traversed . . . a surveyor can make but very little progress in a day. I am no longer surprised that former surveyors never attempted the interior of those townships.³

On the survey of Mersea last spring my party was reduced by sickness from 9 men to 3 and being at some distance from habitation and not able to recruit - I was forced to quit the duty. My own health has not escaped for I have been unwell ever since.⁴

Smith also left some impressions of the vegetation of the southern Point Pelee. He found willow to be the chief cover on the east beach north of the present interpretation centre, while cedar, oak, and walnut predominated on the opposite shore. The tip was vegetated with cedar and oak. Smith also noted that a main road ran into the peninsula from the north.

In the early 1800's Mahlon Burwell began surveying in the Pelee area and his notes and correspondence provide further information on the marsh and surrounding wetland as well as the drowned river mouths, which must have pro-

vided excellent habitat for fish, birds, and other animals. In a letter of 1816 Burwell stated that:

. . . a large and deep marsh prevented me from producing the line between Colchester and Gosfield quite through in the mean time . . . in the early part of the summer it was almost impossible to survey on account of the depth of water in the rear parts of the townships. The men were much afflicted with scalded feet that I could with much difficulty retain them in the woods and when the hot and dry weather came, as the waters began to evaporate rapidly it was not more than three or four weeks before it was entirely gone so that I could not get any by digging four or five feet. The subsoil in these places is invariably a hard clay which must be the cause of this . . . three of my men got ague and others discouraged so that I was forced to leave the woods.⁵

. . . the land in the vicinity of the Two Creeks and their branches which are in Mersea, is very wet and swampy near the lake - the branches of the Two Creeks are very wide and full of deep dead water - They would be exceedingly difficult to bridge . . . impossible to lay the road westerly through Mersea . . .⁶

In 1827, Joseph Pickering, an emigrant farmer from the United Kingdom traversed the Point Pelee area in his search for land. Although he was not a surveyor in the technical sense, his account provides information that supplements earlier observations.

April 1, 1827

Left the outlet (Rondeau) at three o'clock this morning, with a light, but fair and pleasant breeze which continued through the day, with mild air and cloudless sky. Doubled Point Pelee . . . the most southern part of Canada, soon after noon, and rowed round Pigeon Bay, a great fishing place of the Indians, particularly for sturgeons. Cedars grow along the sand banks which sur-

round the Point and enclose large ponds and marshes as at Rondeau, and perhaps a greater place for waterfowl. Stopped near mouth of Sturgeon Creek at an American's for the night.⁷

Pickering's observations and the writings of the surveyors indicate that settlement was underway in the Point Pelee area by about 1820, although slow to penetrate the peninsula itself. Fishing was becoming a well established activity in Lake Erie at this time. Commercial fishing apparently began about 1812, when the American shore was being rapidly settled and towns such as Detroit were growing rapidly. Widespread subsistence fishing was carried out in the streams and bays of the lake, but Erie was then only on the verge of producing the fish bonanza of which we will never see the like again.

The commercial catch of fish from Lake Erie over the past 150 years has exceeded that of the other four Great Lakes combined. The fisheries for lake herring, lake whitefish, blue pike, and now yellow perch and rainbow smelt have been outstanding: total fish harvests have averaged about 9 kilograms per hectare per year.

The commercial fishery began after the War of 1812, while the south shore of Lake Erie was being rapidly settled and development of the north shore was advancing at a more deliberate pace. Subsistence fishing was practiced in the streams and coves of the lake. At the outset, populations of towns were small, the preferred species were readily caught, and transportation systems were inadequate; consequently, no market or commercial fishing of appreciable scope developed until about 1820. During the ensuing 70 years, however, social, economic, and technological developments were

so rapid that the catches increased at an average rate of about 20 percent per year.⁸

Nevertheless, the first settlers on Point Pelee were primarily interested in subsistence fishing. They were French-Canadians, and like their counterparts who took up land in the Lower Thames River valley before 1800, they apparently preferred to live near marsh and grassland, beside rivers and lakes, where they could fish, hunt, graze free-ranging pigs, cattle, and horses, and cultivate a little corn and other crops. Their goals and lifestyle, their landscape preferences, differed from the English and American settlers who later moved into these general areas and eventually exploited the lake.

From an early date the English were very conscious of their economic and political interests in Point Pelee and other relatively isolated areas on the north Erie shore. The Delauriers, Lafleurs and other French Canadians who took up land in Point Pelee in the early 1830's were later labelled as "Squatters", presumably because they had not secured title to the legal satisfaction of the English and Anglo-Canadians.

The potential value of Point Pelee's forests and their susceptibility to damage and destruction at the hands of settlers also was recognised early by government, which was anxious to preserve a supply of wood for the fleet, notably white pine and other tall straight trees for masting. Accordingly it was decided that:

Trees suitable for masting for His Majesty's Navy, especially that growing along rivers, should be reserved to the Crown . . . and suitable inspectors . . . appointed to determine which trees should be so reserved.⁹

Although Pelee apparently contained very few pine or other trees of the desired size and character - and so was an unlikely area in which to apply this very early conservation regulation - the Point was set aside as a naval reserve some time in the 1790's. No trees are known to have been cut for the fleet. But Pelee's reserve status later made it possible to take steps against excessive cutting of cedar and other trees by settlers and exploiters from the United States.

Footnotes

- 1 P. McNiff, "Letter, P. McNiff to Powell, Grant and Robertson, giving report on the shore from Long Point to the Detroit River", Surveyors Letters (Toronto: Ontario Department of Lands and Forests, 1790), Vol. 3, No. 11.
- 2 T. Smith, Survey Records (Toronto: Ontario Department of Lands and Forests, 1805-1806), No. 133.
- 3 T. Smith, Survey Records (Toronto: Ontario Department of Lands and Forests, 1805-1806), Vol. 133, No. 61.
- 4 T. Smith, Survey Records (Toronto: Ontario Department of Lands and Forests, 1805-1806), Vol. 31, No. 66, No. 67.
- 5 Ibid., Vol. XI, pp. 261-265
- 6 Ibid., Vol. 13, No. 47.
- 7 L. Bevan, History of Point Pelee National Park (Ottawa: Department of Indian Affairs and Northern Development, National and Historic Parks Branch, 1972), p. 20.
- 8 H.A. Regier and W.L. Hartman, "Lake Erie's Fish Community: 150 Years of Cultural Stresses", Science, Vol. 180 (1973), p. 1249.
- 9 W.E. Phillips, "Tall trees marked for navy use when land went to farmers", London Free Press, February 28, 1942.

Chapter 6 Expanding Economy, Extractive Processes, and the Beginnings of Conservation: c1830-1893

After about 1830 the effects of rapidly expanding settlement in Upper Canada and the United States began to have an increasingly heavy impact on the Point Pelee area. Of special importance was the rapidly expanding commercial fishing from Leamington, Detroit, Cleveland, and many other growing ports. Expansion depended largely on a rapidly changing technology. New machines revolutionized transport and fishing effectiveness. The construction of railroads reduced dependence on canals and roads and enlarged the market for many products, including fish. Refrigeration replaced smoking and salt-curing and changed tastes and demand for fish. Steam power was applied to boats and fishing equipment, increasing the speed and range of fishing operations.

Fishing gear also became much more effective in middle and late nineteenth century. Hooks, seines, traps and other small stationary equipment were characteristic before 1850. Afterwards, gill and pound nets were introduced and combined with improved engines and water craft to move fishing well away from shore, throughout the entire lake, by the 1880's.

The lake sturgeon was the species most seriously affected in the 1860's as it became a serious problem to the early gill net fishery, which was directed chiefly at lake trout, lake herring, and lake whitefish. Because the sturgeon was large (sometimes over 80kg.) and had external boney

armor, it readily tore the nets set for smaller species. Fishermen then devised heavier nets with large mesh to capture sturgeon and destroyed the fish caught with them - often by piling them like cordwood on the beaches, dousing them with oil and burning them.¹

Records of such activity are available for the Point Pelee area. In 1942, a resident of Ohio, recounted that his grandmother, who was born about 1850, had lived on Point Pelee.

She remembered when sturgeon came to the bar off the Point in May and June in such numbers that her father standing in a flat bottomed boat killed numbers of them by hitting them on the head with an axe. Only the largest were taken. These they boiled in a big pot using driftwood along the shore. When it cooled, the oil was skimmed off and sold in Detroit at 75 cents per gallon. It was probably used as a paint oil. The flesh was fed to pigs, and plowed into the ground. . . . Small quantities were smoked and eaten or sold to people who came for it from Detroit. Other ways of preparing it were by drying or putting it in brine like corned beef.²

In their excellent article, "Lake Erie's Fish Community: 150 Years of Cultural Stresses", Regier and Hartman state that Lake Erie fishermen saw "no value" in the sturgeon until the 1860's when an emigrant from Europe arrived with a knowledge of how to smoke it, render its oil, manufacture caviar from its eggs, and make isinglass (jelly or gelatin) from its air bladder.

By 1870 the sturgeon had become a valued species, but also a much less abundant one. Although sturgeon or marsh populations were probably damaged by other cultural stresses, some sturgeon spawned toward the eastern end of Lake Erie, where environmental conditions must have remained nearly

ideal long after sturgeon had dwindled to insignificance. A few are still taken in commercial gear each year.³

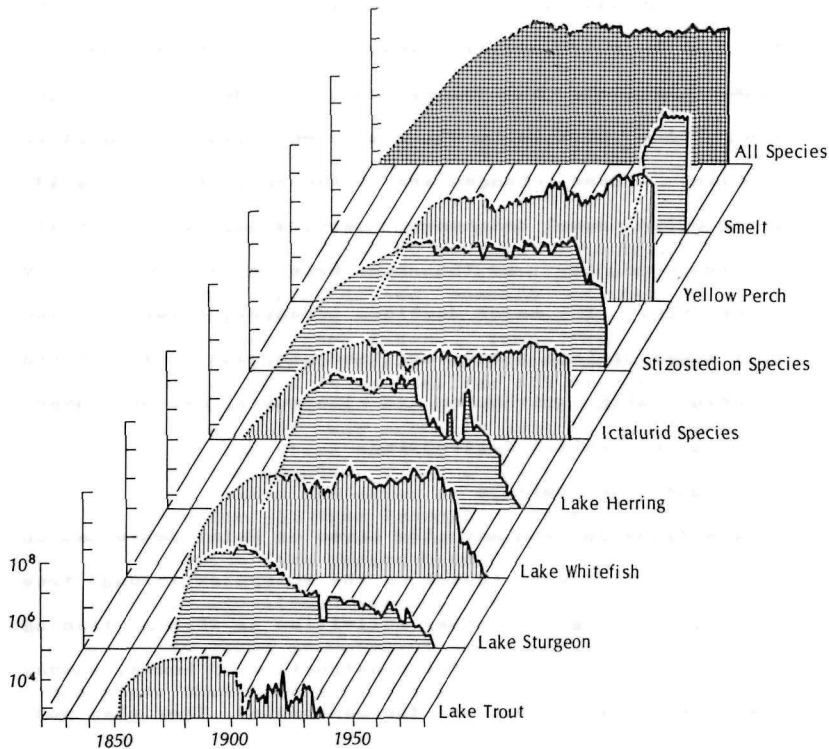
Intense fishing, marsh drainage, and other habitat changes introduced later in the nineteenth century, combined with eutrophication and other effects of phosphorous, nitrates, and new agricultural chemicals to bring the decline of lake trout, lake whitefish, and other species. These changes are illustrated in Figure 13, which shows annual catches of selected species, and all species combined, by the Lake Erie commercial fishery since 1820. The major declines occurred after 1900 and only those of lake trout and lake sturgeon seemingly can be principally attributed to nineteenth century overfishing and habitat destruction.

Grazing and Agriculture

The fishermen who actually lived on Point Pelee had an equal if not greater impact on the ecosystem through tree cutting, grazing, and other activities as through fishing itself. They cut wood for construction of homes, sheds, boats, and fuel throughout the peninsula. They also possessed numerous cattle and other stock which ranged widely, browsing, rooting, and otherwise modifying the vegetation.

Although the number of domesticated animals present in the park area during the nineteenth century is unknown, there are suggestions that the range may have been stocked to its carrying capacity. The marsh undoubtedly

Figure 13



ANNUAL COMMERCIAL FISH CATCHES

The vertical scale is logarithmic. Continuous lines represent data reported annually by commercial fishermen, dashed lines represent less firm data that involve considerable interpolation, and dotted lines are based on a number of semi-quantitative accounts. *Stizostedion* species include walleye, blue pike, and saugers; *Ictalurid* species include channel catfish and bullhead.

Source: Regier and Hartman, 1973

was of vital importance in supporting animals, as is evident from Oliver Delaurier's remarks of March 23, 1882, to the effect that "the marsh has been my support for 45 years, for hunting rats, fishing and for pasture as the sandy soil [of the nearby dunes] provides no pasture."⁴ In spite of Delaurier's negative comments about the pasture outside the marsh, heavy livestock pressure was undoubtedly placed on parts of the western and eastern bars. In the late 1880's the lighthouse keeper living at the south end of the Point complained that squatters' fences were preventing his cattle from getting sufficient feed. In 1889 he was allocated 29.5 acres for his home, fuel, and also for his animals.⁵ In about 1890 settlers' cattle destroyed vegetation at the tip of Pelee while reportedly grazing there in order to escape the flies and insects that plagued the peninsula in summer.⁶ In about 1891 a government official reported that cattle had destroyed willows which were planted near the tip of Point Pelee in order to cover bare sand and reduce erosion.⁷

Hunting

Relatively little direct reference to nineteenth century hunting of deer and other animals in Point Pelee has been found in contemporary articles and books or in government reports. However, hunting is generally recognised as having been an important means of subsistence and sport for settlers and visitors in the Pelee area.

Accounts in twentieth century newspapers and other secondary sources give an impression of early wildlife numbers and hunting that, although undoubtedly based on the accounts of early settlers or their descendants, may be rather extravagant. One article reads as follows:

-the now extinct passenger pigeon lived . . . in the millions. They were so thick that a person had little difficulty in killing them with a club. So thick were they . . . that large flocks would completely obscure the sun.

Black squirrels . . . lived on Point Pelee in large numbers. It was once the main Sunday sport to go hunting these elusive animals with bow and arrow.⁸

Another quote from the Border Cities Star of June 16, 1923 indicated that:

Much of the time was spent hunting and fishing and at that time there was almost an unlimited supply to be had. Deer lived on Point Pelee in large numbers and thousands were killed by settlers and used for food.⁹

It is not known when deer actually became rare on Point Pelee, although unlike muskrats, waterfowl, and other animals, they are not mentioned much after the early nineteenth century. The small size of Pelee and the increasing intensity and scale of human activity during 1830-1880 must have severely reduced the population. In addition to the effects of hunting, the animals would have had to compete for space and forage with livestock. According to an article in the February 8, 1945 Leamington Post and News deer had become scarce in Essex County as a whole by 1898 or 1899.¹⁰

Waterfowl are mentioned rather frequently in government and other documents of the mid and late nineteenth century. Hunting for subsistence and increasingly for sport by residents and visitors from other parts of Canada and the United States probably had substantially decreased the numbers of herons, ducks, and other waterfowl by the 1860's. In an October 15, 1870 letter to the editor of the Ottawa Daily Times, a government employee, W.F. Whitcher, emphasized that hunting at both Rondeau and Pelee had seriously reduced duck populations. He went on to note that less depredation had occurred at Long Point Peninsula which, in 1866, was leased by a group of citizens for management as a private game reserve.

Attempts subsequently were made to establish game reserves in the Pelee marsh. On March 24, 1870, for example, a Toronto resident applied for a lease "...to preserve the marsh and game from being entirely exterminated...."¹¹ On March 28, 1870, another Toronto resident applied for a lease for similar purposes. It is not clear whether either of these leases were granted by the British government, which gave up control of the naval reserve to the Canadian government in 1871.¹²

Early lease requests may not have been granted because of concern over the right of "squatters", and, perhaps, of Indians. However, such problems must have been resolved in some fashion by the 1880's, following Baird's

survey of the lots ; for in April 6, 1885, a large part of the marsh was leased for 21 years at an annual rent of \$400 to the South Essex Gun Club, composed chiefly of people from St. Catharines.¹³ The new managers quickly began to restrict the use of the marsh by settlers and visitors. This led to strong complaints, especially by the squatters and also, perhaps, to some recovery of waterfowl populations, due to improved management for a smaller group of users. A large part of the marsh is still open to sportsmen today, even though the area has become a national park. The continued hunting of waterfowl is a source of increasing concern to some conservationists.

As elsewhere in Ontario, blackbirds, robins, meadowlarks, and other small passerine birds undoubtedly were hunted for feed and sport until well into the twentieth century, although once again no direct reference to this activity has been found in the documents directly bearing on Point Pelee. Pressure on the smaller birds decreased in Ontario after the passage of the Migratory Birds Act in 1916.

Wood-cutting

Caucasian wood-cutting originally occurred on a small scale for fuel and other needs of settlers and nearby residents. By 1850 a saw mill had been built at Sturgeon Creek near the present site of Leamington.¹⁴ In 1852 a settler near the Point reported that cedar on the penin-

sula was being cut by Indians and Caucasians and sold in American markets. In the reporters opinion, if this practice were not stopped, it would "soon clear the place." Between the years 1849-1852, approximately five to nine thousand red cedars reportedly were cut for pickets and transported to American markets. In a letter to the Commissioner of Crown Lands, dated October 4, 1852, J. Bell noted "the continued plunder of the timber on government lands at Point Pelee."¹⁵

One direct result of this lumbering was the heightening of concern about shipwrecks. Point Pelee had long been recognised as a very dangerous place for shipping. By 1852 an increase in traffic in nearby waters led to the decision to build a lighthouse on a submerged reef located four miles off Point Pelee.¹⁶ Due to construction difficulties the lighthouse was not completed until 1862. Later a lifesaving station was built on the nearby southwestern shore of Pelee. Aside from these technical aids however, many people believed that the trees of Pelee helped to reduce shipwrecks because the high forest could be seen by sailors approaching shore. Timber also provided protection against wind and waves for vessels in the waters near the Point. Such considerations were in the mind of Mr. T. Trudeau in 1860 when he noted that "the great depredations being committed on Point Pelee by cutting down the green timber or brush wood" were doing little to preserve "a shelter for vessels loading at the Point."¹⁷

By May 7, 1881, removal of timber at Point Pelee was considered so serious a problem that a caretaker was appointed "to protect timber at Point Pelee Naval Reserve."¹⁸ Mr. Peter Conover, a nearby settler, filled the new post. How much the forests had actually been affected by woodcutting is difficult to say. In an 1883 survey the drainage engineer, Alexander Baird, was still able to report "that the land lying southwest of the squatters was composed of red cedars, . . . scrub red oak, a scattering of black walnut, hard maple, bass wood, and black oak; . . ."¹⁹ In this and earlier reports no mention is made of the hackberry so common in the area today.

The reference to hard or sugar maple suggests that it was more common in the 1880's than now, when only a small number of older representatives of this species are found, chiefly within a few acres in the northwest corner of the park. Furthermore, if other reports are correct, sugar maple numbers in the 1880's were lower than in earlier days, the decline largely being due to the continued tapping of the tree for sap for about 40 years. Cedar reportedly were "filling in the bare spots" vacated by the maple.²⁰

Conover continued to report "pilfering of trees" for years after his appointment. He also sent in reports suggesting that trees were becoming more numerous in the park, although rapid growth of cedar and other vegetation

may have been overlooked to some degree amid the pessimism current at the time of Conover's appointment. By 1893, "thousands of small trees" were recorded on the peninsula, some of these definitely "coming up on what was once bare ground"; and this in spite of fires encouraged by brush left after the cutting of trees for telephone poles in earlier years.²¹ In the 1890's Conover also made the first known reference to presence of hackberry on Point Pelee peninsula.

At this time tree growth was proceeding so well that Conover recommended that "it would improve the appearance of the Point if some of the large cedars were cut."²² He estimated that 30,000 posts could be removed. In November, 1893, Everett Wigle was authorized to cut cedars designated by Conover because "the cedar are so plentiful and growing so closely together that the undergrowth is destroyed." Wigle was allowed to cut and remove all cedar trees outside the squatters' holdings with a diameter equal to or greater than 5 inches.²³ Wigle was to pay \$400 for this privilege. He subsequently removed 11,400 cedar and 69 walnut valued at \$1,682.66.²⁴ Protests immediately came, first, from the South Essex Gun Club because of possible effects on the waterfowl population; second, from residents who feared loss of protective forest on the west side of the peninsula; and, third, from the Department of Fisheries because of the possibility that Point Pelee would be less visible to sailors in bad

weather. Wigle was ordered to cease lumbering and subsequently refused to pay his \$400 fee. He also left a large quantity of slash and waste wood, which possibly contributed to fires that destroyed cedar and maples on the Point in 1894.²⁵

Shore Erosion, Sand Mining and Other Processes

In the late nineteenth century the government caretaker and first conservation officer, Peter Conover, had to contend with a number of other processes and problems that have had continued to plague parks officials and others interested in Point Pelee ever since. One of these processes has been shore erosion. In April, 1884 Conover planted windbreaks of willow and other trees "where no timber is growing"; the aim being to protect property and to prevent portions of the beach at Point Pelee from being washed away."²⁶ However in October, 1884 the east beach was reported to be "washed away considerably."²⁷ More trees were planted to "preserve" the shore.

As early as the 1870's sand and gravel was being mined on the Point and shipped on American vessels to the United States for use in construction and other activities. In the 1890's Conover received an application from an American to take sand from Pelee shore.²⁸ While this particular request may not have been granted, permission later was given to some Americans to remove sands from submerged deposits located off the south end of Point Pelee. This activity continued until recently in spite

of the proximity of the dredged area to Point Pelee National Park and the possible impact of this activity on fish, other organisms, sediment movement, and beach stability in this area.

Other activities that were later to have a major impact on the Point Pelee landscape also began in the 1870's and 1880's, for example visits by ornithologists and naturalists concerned about preserving birds and also by engineers and others interested in draining the Pelee marshes for agriculture.

Footnotes

- ¹ H.A. Regier and W.L. Hartman, "Lake Erie's Fish Community: 150 Years of Cultural Stresses", Science, Vol. 180 (1973), p. 1249.
- ² W.J.K. Harkness and J.R. Dymond, The Lake Sturgeon (Toronto: Ontario Department of Lands and Forests, 1961), p. 4.
- ³ Regier and Hartman, "Cultural Stresses", p. 1250.
- ⁴ Letter, O. Delaurier to the Minister of the Interior, March 23, 1882, Department of the Interior, Admiralty and Lands Branch, Land Patents, File 750-4-3-7.
- ⁵ Government of Canada, P.C. No. 1972, July 26, 1889.
- ⁶ Letter, P. Conover to the Minister of the Interior, January 7, 1891, Government of Canada, Public Archives, Manuscript Division, File 1509, Vol. 2.
- ⁷ Ibid.
- ⁸ E. Anderson, "Furnishes Proof of Battle", Border Cities Star, June 16, 1923.
- ⁹ E. Anderson, "French and Indians Waged Battle In Which Many Fell", Border Cities Star, June 16, 1923.
- ¹⁰ J. Miner, "Is Dogging Deer Right?", Leamington Post and News, February 8, 1945.
- ¹¹ Letter, J.O. Heward to the Secretary of State, March 24, 1870, Department of the Interior, Admiralty and Lands Branch, Land Patents, File 750-4-3-1-Heward.
- ¹² Although the Canadian government assumed responsibility for all naval reserves in Canada from the British Imperial government in 1871, requests for licenses of occupation on Point Pelee required the approval of the British Lords of the Admiralty under the Naval Vesting Act of 1851. This consent was given on May 13, 1873 with the distinct understanding that squatters' rights on the peninsula were not to be disturbed. See, for example, Letter, Captain Hall to Undersecretary of State, May 13, 1873, Department of the Interior, Admiralty and Lands Branch, Land Patents, File 750-4-3-1-Heward.
- ¹³ Government of Canada, P.C. No. 2340, April 6, 1885.

- ¹⁴ L. Bevan, History of Point Pelee National Park (Ottawa: Department of Indian Affairs and Northern Development, National and Historic Parks Branch, 1972), p. 20.
- ¹⁵ Letter, J. Bell to Commissioner of Crown Lands, October 4, 1852, Government of Canada, Public Archives, Manuscript Division, File 1694, Vol. 1.
- ¹⁶ Government of Canada, "Report on the Foundation Works of Point Pelee Light House", Journal of the Legislative Assembly, 21 Vict. (1858), Appendix to the Commissioners of Public Works, Appendix No. 19, Appendix A.
- ¹⁷ Letter, T. Trudeau to A. Russell, Commissioner of Crown Lands, Quebec, June 11, 1860, Government of Canada, Public Archives, Manuscript Division, File 1694, Vol. 1.
- ¹⁸ Government of Canada, P.C. No. 316, February 28, 1881.
- ¹⁹ Letter, A. Baird to the Minister of the Interior, May 10, 1883, Government of Canada, Public Archives, Manuscript Division, File 1694, Vol. 1.
- ²⁰ Letter, P. Conover to the Ministry of the Interior, March 15, 1892, Government of Canada, Public Archives, Manuscript Division, File 1509, Vol. 2.
- ²¹ Letter, P. Conover to the Ministry of the Interior, February 24, 1893, Government of Canada, Public Archives, Manuscript Division, File 1509, Vol. 2.
- ²² Ibid.
- ²³ Government of Canada, P.C. No. 3055, November 29, 1893.
- ²⁴ Letter, Minister of the Interior to P. Conover, May 29, 1895, Government of Canada, Public Archives, Manuscript Division, File 1509, Vol. 3.
- ²⁵ Letter, Minister of the Interior to P. Conover, March 16, 1894, Government of Canada, Public Archives, Manuscript Division, File 1509, Vol. 3; Letter, P. Conover to Minister of the Interior, July 4, 1894, Government of Canada, Public Archives, Manuscript Division, File 1509, Vol. 3.
- ²⁶ Letter, P. Conover to the Minister of the Interior, October 7, 1884, Government of Canada, Public Archives, Manuscript Division, File 1509, Vol. 1.

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28 Letter, P. Conover to the Minister of the Interior,
November, 1891, Government of Canada, Public
Archives, Manuscript Division, File 1509, Vol. 2.

Chapter 7

Draining the Marshes

Drainage began about the same time as cultivation in southern Ontario, runoff and percolation often being slow on the low-lying lake and other glacial deposits typical of counties such as Kent and Essex. Most of the early drainage improvements were undertaken by individuals using ditches or simple sub-surface drains of rock, wood, or brick. These early methods had obvious limitations and were of no use at all in satisfying the growing interest in "reclaiming for agriculture" the large marshes concentrated along the north Erie shore.

In the 1860's, 1870's and 1880's a number of financial and organizational changes made it possible for individuals to co-operate with each other and with municipal and provincial governments in drainage projects. Municipal governments were empowered: 1) to grant permission for projects within their jurisdiction, upon petition from interested farmers, and given the submission of a favourable engineering report; 2) to secure loan funds from the provincial government at low interest rates, and; 3) to levy taxes to maintain the large municipal drains.

These fundamental changes and institutional arrangements were paralleled by important changes in drainage technology. The development of tile, and the introduction of large steam powered dredging machines and pumps made it physically possible to drain the large marshes

which had been beyond the settlers' capabilities previously.

In the early 1890's these new institutional and technical developments were directed against the Point Pelee marshes. On November 20, 1893 one "W.L. Scott, presented a petition signed by R.L. Hillman and 37 others praying that ascertained lots mentioned in said petition be reclaimed by dyking in order to bring such land into a state of cultivation and usefulness."¹ After submission of a favourable engineering report, on March 19, 1894, the Mersea Township Council passed Bylaw 523 which permitted the Pelee Drainage Project to proceed (Figure 14).

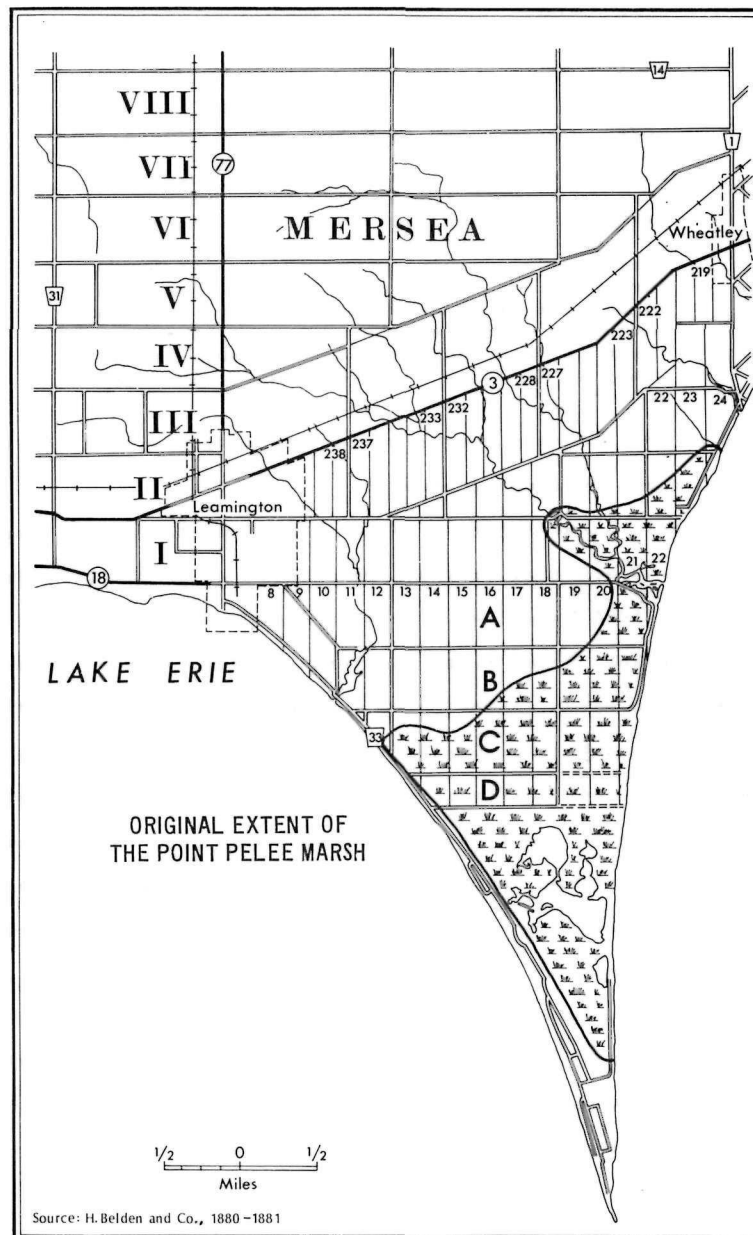
Contemporary news reports about the project were enthusiastic and reflect something of the values and attitudes towards the recreational and wildlife potential of large marsh areas.

"To convert five thousand acres of wild swampland into the richest and most productive soil in Ontario is an undertaking the immensity of which few people have any conception. On the east side of Point Pelee, in the Township of Mersea, ten thousand acres have for ages lain entirely useless, serving no better purpose than as the home of muskrats and wildfowl."²

The drainage project was an immense undertaking even by today's standards.

Active operations were begun on May 15, 1894 and on June 27, 1895, at 6 p.m., the dredge in tow of the barge Energy left the cut, having completed the circuit of 5,000 acres (3,000 acres of low land and 2,000 acres of high land) leaving behind her a canal nine and a half miles long, 33 feet wide and seven to 11 feet deep.³

Figure 14



Agriculture appears to have quickly dominated the reclaimed land.

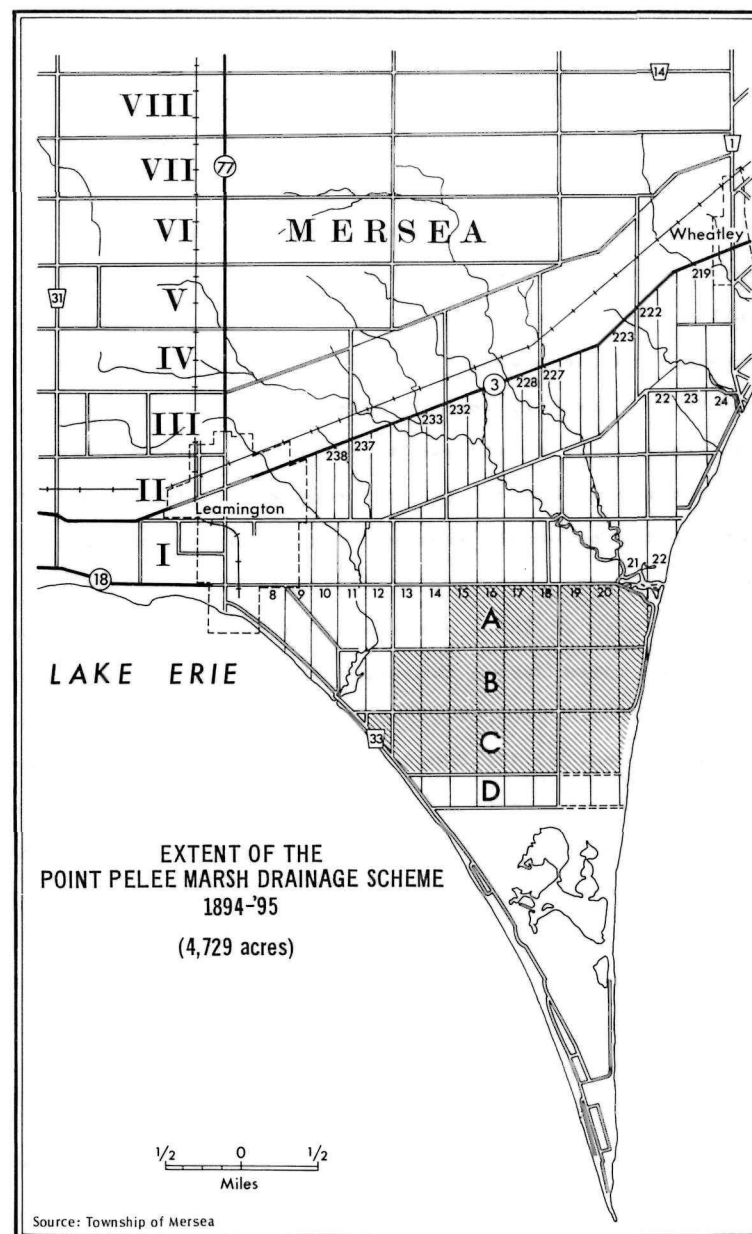
Already one-fifth of the reclaimed land is under cultivation and the prospects are that this year the crops will turn out remarkably heavy. Farmers . . . declared that in all their experience in this fertile county they had never seen the equal of the crops this year of wheat, barley, corn, potatoes etc. in this marsh land. The section is already taking on the appearance of a settled community, houses and barns having sprung up as if by magic. There is a steady demand for land, which today is selling at from \$20 to \$25 per acre.⁴

Figure 15 indicates the extent of the original 1894 Point Pelee Marsh Drainage Scheme.

Almost immediately after its completion, the \$22,844.00 drainage scheme, was beset by problems. On July 22, 1895 "a slide or cave-in occurred in the embankment of the Point Pelee Drainage System at the point where the marsh water used to flow to Pelee Creek."⁵ Repairs to both the pumping equipment and to the embankments were continually being made through the latter part of the decade. For example, on November 16, 1896 it was reported that the "embankment . . . had settled as much as to be unsafe to keep the water from flowing over into the marshlands."⁶

In 1903, under Bylaw 690, the Point Pelee Marsh Drainage System was repaired at a cost of \$13,721.00. By 1904 Lots 19, 20 and 21 in Concession C were so poorly protected by the drainage system that under Bylaw 701 a

Figure 15

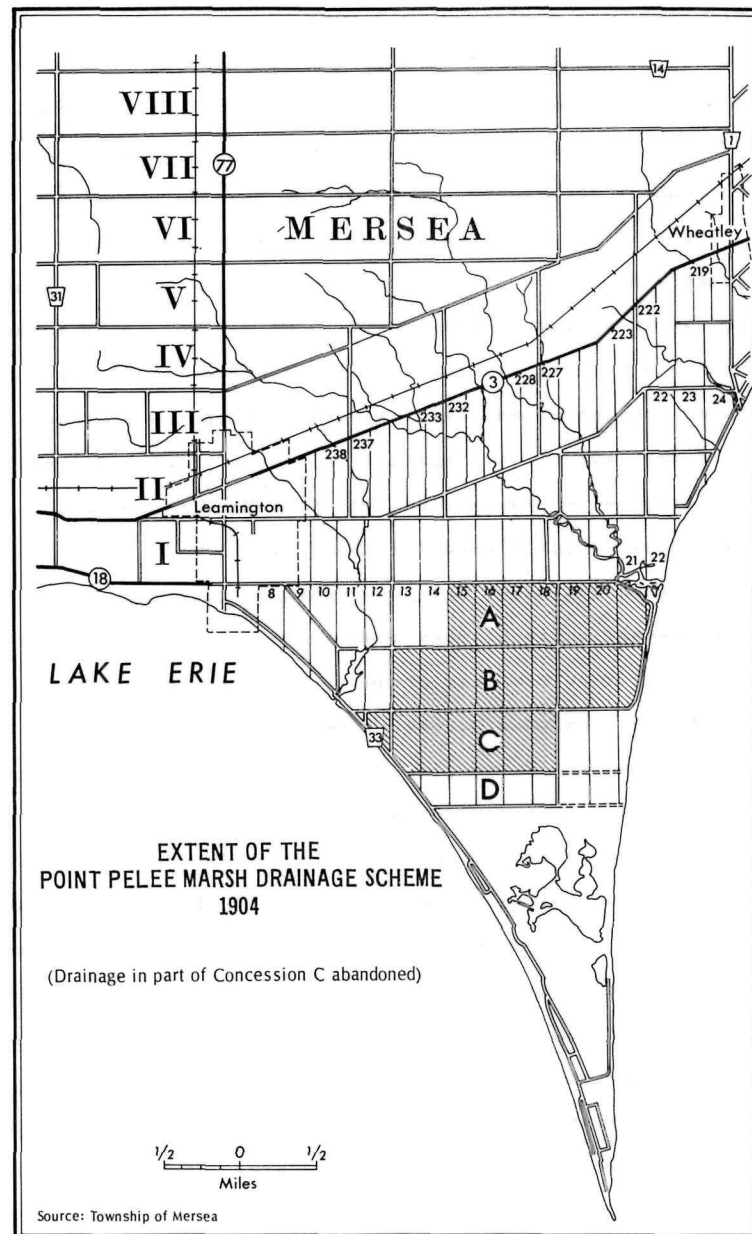


total of \$4,000.00 was paid to Alister McKay in exchange for abandonment of his land within the scheme.⁷ This change is indicated in Figure 16.

By 1905 the Point Pelee Marsh Drainage System was \$46,000.00 in arrears, necessitating the passage of a Private Member's Bill in the Ontario Legislature to consolidate the debts for the scheme. This private bill was called the Point Pelee Marsh Debenture Act 1905.⁸ In response to the passage of this bill, on June 5, 1905, the Mersea Township adopted Bylaw 719 which provided for the issuance of debentures to cover the debts outstanding for the scheme and to pay for repairs costing \$8,900.00. The repairs primarily involved deepening and dredging to remove sediment which had collected in the canals.⁹

In October of 1908, seepage of water into the drainage scheme prompted Mersea Township Council provisionally to adopt Bylaw 790 providing for repairs to the system at an estimated cost of \$26,000.00. However, this bylaw met with stiff resistance from ratepayers because all the repairs were to be conducted in only one part of the drainage scheme. An injunction from an objector prevented the Council from proceeding. On September 29, 1909, after long deliberation, drainage referee G.G. Henderson of Chatham, divided the Point Pelee Marsh Drainage Scheme into two sections: the East Marsh Drainage System and the West Marsh Drainage System. This division, the boundary line of which is the present 18/19

Figure 16



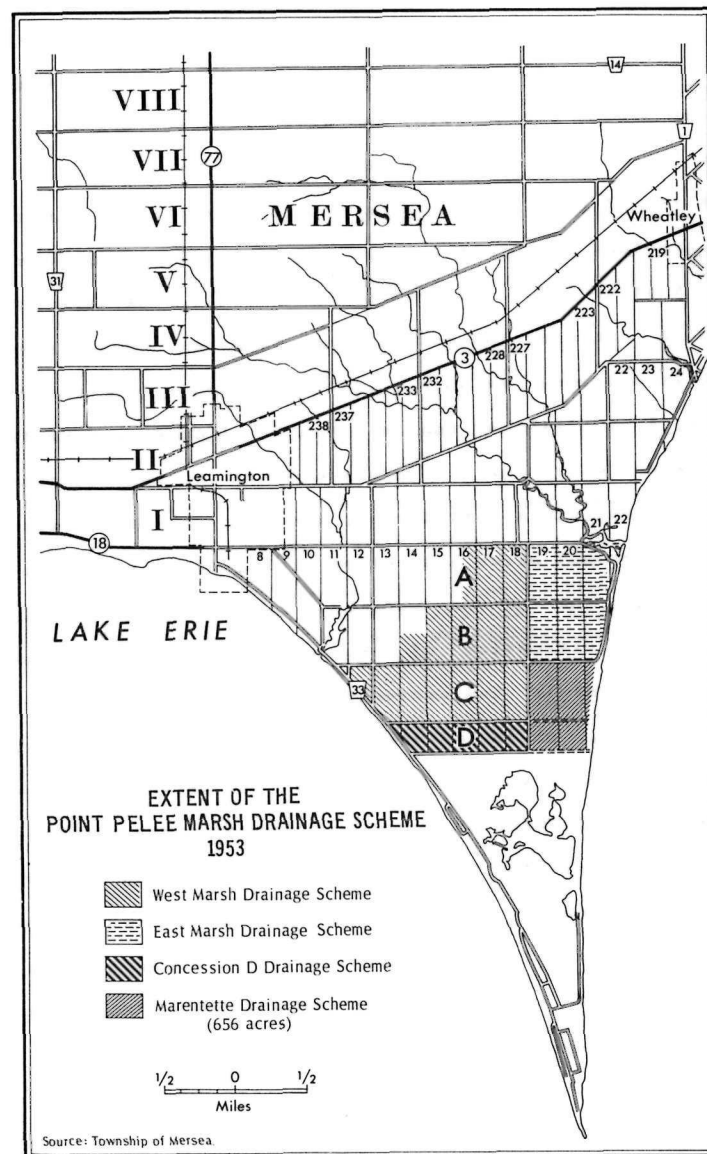
Sideroad, is portrayed in Figure 17. This legal change led to completion of repairs to the East Marsh Drainage Scheme at a cost of \$9,596.00. Continual repairs to the pumping equipment of the east marsh scheme were necessary throughout the second decade of the twentieth century.

In 1910 the accumulation of sediment and muck in concession C forced the repair of the West Marsh Drainage Scheme at a cost of \$14,490.00. On May 24, 1913, Mersea Township Council was forced to borrow additional money to cover the increased costs of constructing the system. In 1918 the annual levy against all land owners for maintaining the scheme was raised from \$550 to \$1,100, an exceedingly high figure for those days.¹⁰

Further drainage of the marshlands directly north of the present national park boundary occurred in 1914. The extent of this drainage project, known as concession D or the Lloyd Drainage Scheme, is depicted in Figure 17. Constructed on lands owned by the South Essex Company, this scheme contained 535 acres. The Concession D System remained in private hands until 1922 when its poor condition prompted land owners to petition Mersea township council to take over responsibility for its operation. This was done under Bylaw 149. This section of drained marsh continued to cause financial and other difficulties for the township in succeeding years.¹¹

In the years between 1894 and 1918, the date of establishment of Point Pelee National Park, numerous smaller

Figure 17



drains were constructed within the East, West and Concession D drainage systems. These are too numerous to discuss in detail but include Hillman drain, A and B Concession drain, and C drain, and 18-19 Sideroad drain.

As can be seen from this short summary, the "reclaimed marsh lands" have presented numerous physical and financial problems for their owners and Mersea Township Council. Whether a benefit-cost analysis would show that the costs of draining and maintaining them has been worthwhile is unknown, as such a study has never been undertaken. A benefit-cost analysis would, of course, have to include estimates of wildlife and other intangible values. To complete a satisfactory study of this type, even for the present birds and other biological and recreational resources of the marshes, would be exceedingly difficult. Disruption of the marsh ecosystem through drainage certainly has decreased recreational and other opportunities, while at the same time incurring heavy costs on Mersea Township residents, the provincial government, and citizens of Ontario at large. The approximate halving of the Pelee marsh area also has placed additional stress upon the remaining wetlands, which are required to satisfy the recreational and conservational requirements of local residents and visitors from other parts of Ontario, Canada, and the United States.

Footnotes

- 1 Township of Mersea Council Minutes, November 20, 1893, Province of Ontario, Archives, G.S. 947-949.
- 2 N.F. Morrison, "Point Pelee Reclaimed", Windsor Star, June 23, 1951.
- 3 Ibid.
- 4 Ibid.
- 5 Township of Mersea Council Minutes, July 22, 1895, Province of Ontario, Archives, G.S. 947-949.
- 6 Township of Mersea Council Minutes, November 16, 1896, Province of Ontario, Archives, G.S. 947-949.
- 7 J.G. Battin and R.D. Kreutzwiser, "Municipal Drainage in the Pelee and Rondeau Peninsula Areas" (unpublished research manuscript, University of Western Ontario, 1974), p. 1.
- 8 Province of Ontario, 5 Edward VII, 11th Legislature, 1st Sess. (1905), No. 19.
- 9 Battin and Kreutzwiser, "Municipal Drainage", p. 1.
- 10 Ibid., pp. 1-4.
- 11 Ibid., p. 6; Letter, J. Dunne to Deputy Minister of the Department of the Interior, August 24, 1914, Government of Canada, Public Archives, Manuscript Division, File 1694, Vol. 3.

Chapter 8

Use and Conservation: The Growing Conflict

Continuance of Previous Processes

By about 1900 settlement and economic development were well underway in the Point Pelee area. Many cultural processes had been introduced which were substantially modifying vegetation, animals, and other aspects of landscape. Woodcutting was one of the more important of these processes. Numerous pine for masts also were cut about this time by squatters and fishermen. Government activities contributed to the problem as well. The Point Pelee pathmaster arranged for the cutting of timber along the main road into the peninsula. On November 26, 1900, the naval reserve caretaker advocated cleaning up the brushwood and undergrowth and making Pelee "the finest resort in Canada."¹

Fishing continued to be an important commercial and subsistence activity. As of 1918 some seven fisheries were operating on the peninsula. Some fishermen opened and deepened the east bar marsh outlet in order to facilitate the catching of carp. This action reportedly lowered the marsh level 16 to 18 inches; its effects on the marsh ecosystem remain unknown.

Hunting continued on both the west and east bars as well as in the marsh. Deer are not mentioned, but duck hunting was noticeably poorer.²

Crop cultivation had been a minor but expanding cultural process in the park area throughout the 1800's. Most of the crop production appears to have been for subsistence and to have been concentrated in the east central section of the peninsula in the vicinity of the sand plains, where early Indian farmers and the first French-Canadian settlers grew their corn, beans, and other food.

However cultivation began to emerge as a major land use on Point Pelee about the turn of the century. Hundreds of peach trees were planted by squatters and burley tobacco was introduced. Large quantities of peaches were shipped in 1901. Squatters began selling part or all of their holdings to people in Leamington for the production of peaches and also for summer homes.³

Browsing and grazing of livestock continued to have effects as well. Cattle reportedly fed on and killed cedar trees. Hogs ran "wild". Visitors to the Point were surprised at the number of cattle and hogs roaming all over the reserve, uprooting trees, and tearing up the soil. Fires also were set on the peninsula at this time.⁴

Interest in drainage and reclamation continued. In 1914 the Point Improvement Company applied "to drain the entire 2685 acres and place it in a state of cultivation."⁵ An official of the Ordinance and Admiralty Lands Department recommended against this change on the grounds that

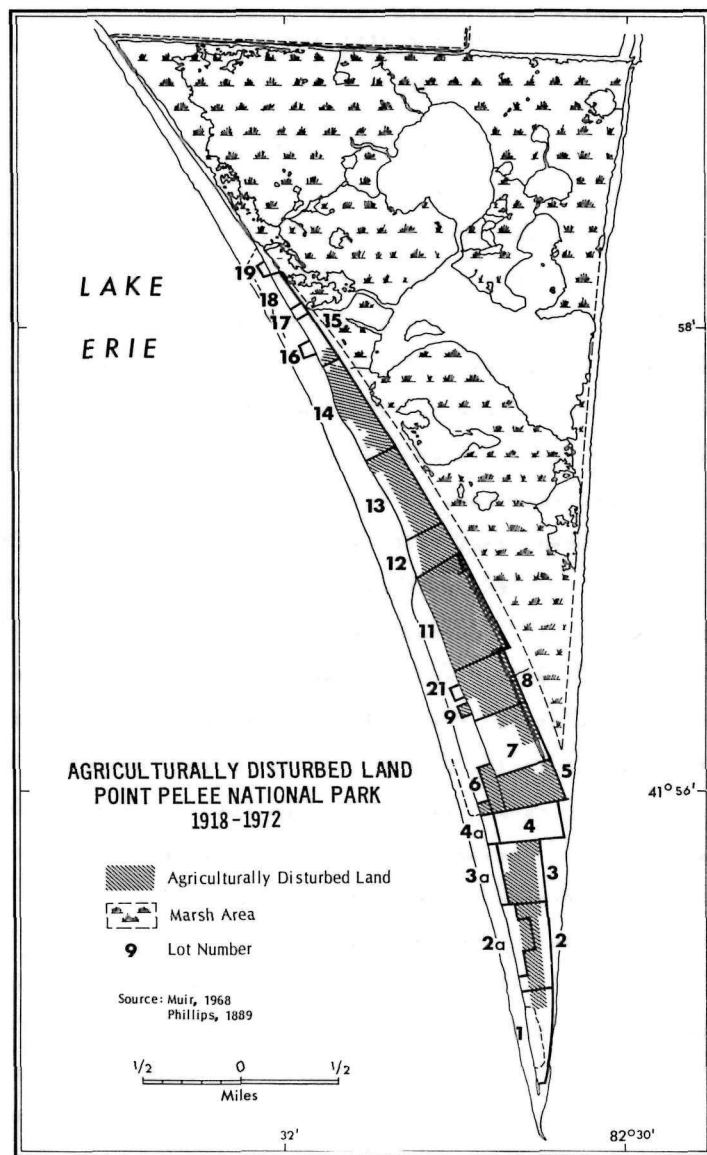
. . . tracts of land or marsh suitable for the propagation and preservation of game where the public may enjoy a few years sport are very scarce and are becoming more so each year. The land should be retained as a game preserve for the public interest.⁶

The effects of nearby drainage schemes and of hunters and fishermen on the marsh were undoubtedly intensified by the low lake levels current in the 1890's and early 1900's. In only three years out of 15 between 1870 and 1890 did the lake level fall below 569 feet, even in November and December. In contrast, in only two years out of the 20 between 1891 and 1910 did the lake rise above 570 feet. In consequence, much of the former marsh bottom was laid open to various types of land use. One report noted that "100 acres are dry" and could be reclaimed "as the soil is peaty and very fertile."⁷ In 1910 the marsh reportedly was so dry that one could "walk on it for 1 mile," and the muskrats had "all gone to the dyke" separating the reclaimed northern marshlands from those still in the park.⁸ Cattle, hogs, and other stock undoubtedly range widely through the marsh at this low water stage. Several applications were made to cultivate the newly exposed marsh bottom (Figure 18).

Oil Exploitation and Mining

Perhaps partly as a result of low marsh levels, a short-lived oil boom occurred in Point Pelee area about 1900. The impetus to prospecting apparently was the "flow of oil from wells originally bored for water on

Figure 18



settlers lands."⁹ As early as January 19, 1894, the naval reserve caretaker, Peter Conover, wrote the Minister of Interior, asking what action could be taken against squatters who had leased land to the Ontario Natural Gas Company. About one year later however, he applied for permission to lease land for oil and gas prospecting. Some applications were granted in the next few years. Yet very little drilling actually appears to have taken place in the marsh or other parts of the peninsula.

Interest in sand and gravel mining accelerated about the turn of the century. Several applications for permission to mine were rejected. But some leases were granted and a considerable amount of disturbance of vegetation and soils undoubtedly occurred in parts of the park. A.B. Drake of Windsor held and operated a lease of "39.45 acres along the west beach between the road allowance and the highwater mark of Lake Erie."¹⁰ In October 1912, James Young of Windsor was leased an area "along the east beach from the road allowance between lots 4 and 5 to a point midway along the east boundary of lot 2"¹¹ (Figure 28). In 1913 James Thompson of Windsor leased 18.1 acres "between the road allowance and the high water mark of Lake Erie on the west beach along the westerly boundary of lot 1."¹² American operators dredged or sucked sand from the submerged deposits off the southern tip of the peninsula.

Opposition to mining was voiced by naval authorities who were most concerned about the possible effects of off shore dredging on erosion of the peninsula. In July 22, 1914 C.E. Kingsmill, Vice Admiral and Director of Naval Services, stated that:

"The end has shortened over 1/2 mile in two years . . . dredging should be abandoned. This continued dredging on the Point will, in my opinion, very much alter the direction of the currents. It does not seem right that the integrity of the shoreline should be interfered with for the convenience and profit of the private individuals."¹³

The Naturalists and Scientists

As mining, lumbering, agriculture and other activities increased, some people became interested in introducing legislation to provide greater protection for Point Pelee. Among the leaders were the naturalists, ornithologists, and other scientists, who began coming to the peninsula in the 1870's. Prominent among these men was W.E. Saunders, of London. Saunders, an ornithologist, organized field trips to Point Pelee with other naturalists, such as Swales, Klugh, and Taverner. These trips led to the establishment of the Great Lakes Ornithological Club in 1905 and to the building of a shack or a clubhouse on the west bar, not far from the present interpretation centre. Members spent increasing amounts of time there, observing birds, trees, and other phenomena, preparing publications which made the special characteristics of the Point better known and appreciated.

An example is, Birds of Point Pelee, by Taverner and Swales, published in 1907.

Klugh, a botanist, prepared a brief report on the vegetation, principally the trees. He noted that the flora was "directly Carolinian" and "getting scarcer and scarcer in the adjoining country as . . . sites are being cleared up and made into corn and wheat fields."¹⁴ According to Klugh, in the early 1900's,

The eastern shore . . . being composed of but a single sand-dune bare of vegetation except for a meager covering of zerophytic plants and a few scattered cottonwoods . . . The plant life is typical of such places and is composed of Sand-drop-seed, Sporobolus cryptandrus Knott-weed Spurge, Euphorbia polygonifolia and Tall Wormwood, Artemisia caudata. Several scattered clumps of Cottonwood . . . occur on the crest, and patches of Sea Sand-Reed, Ammophila arundinacea, and Smooth Panic Grass, Panicum virgatum . . . The older residents say that some forty years ago this shore was nearly three-quarters of a mile wide and clothed in heavy timber.¹⁵

The western side . . . is heavily wooded with deciduous and evergreen trees. Black walnut, Juglans nigra, is one of the most conspicuous species of the former and Red Cedar, Juniperus virginiana, of the latter. In fact, these two with Juniper Juniperus communis, are the species that give the most striking character to the floral aspects of Point Pelee. Here and there a tall White Pine, Pinus strobus towers up among the other growth . . . to form piney groves. The extreme end of the Point is covered with a heavy growth of Red Cedar in clumps filled in between with great beds of Juniper. This growth . . . continues down the point in a sharply defined belt between the beach in front and the deciduous woods behind.¹⁶

In the center of this woodland are extensive fields, both cultivated and waste,

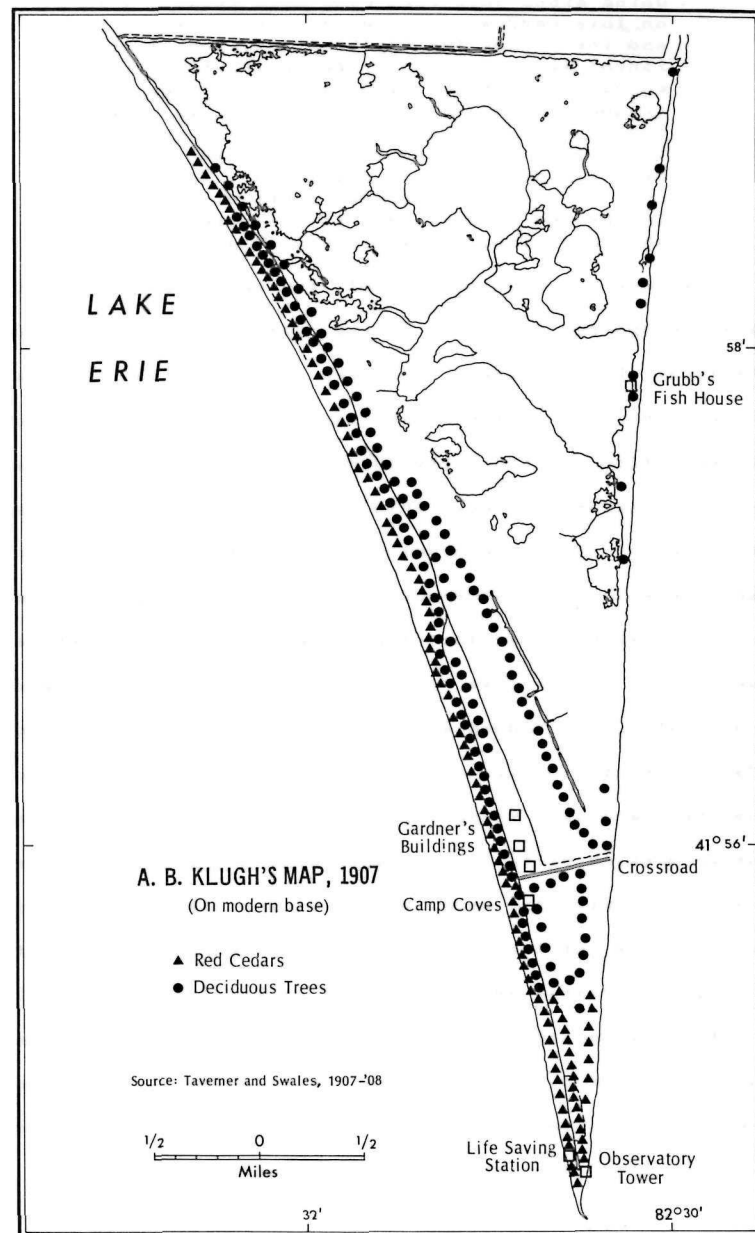
some more or less grown up with thickets of Hackberry . . . hickory . . . Black Walnut, Red Oaks, and Chestnut Oaks¹⁷ (Figure 19).

This account of the vegetation is difficult to relate spatially and historically to earlier ones. But it does indicate that red cedar and black walnut were still relatively common on the west bar and near the southern tip of the Point. Red cedar and juniper appear to have been predominant in the early vegetation succession on the beaches, the pattern probably resembling that shown in the 1922 photographs of this environment.

According to observations made earlier in the nineteenth century, various species of oak were found on the dunes, in association with red cedar and walnut. But Klugh mentions oak, along with hackberry, hickory, and black walnut, only in connection with the cultivated and disturbed ground in the center of the west bar. Perhaps a zone of hackberry, oak, and other trees was located or developing east of the western dunes, this zone being a forerunner of the hackberry-rich forest found there today.

The previous interpretation is supported by the work of another biologist, C.K. Dodge. In 1914, at the urging of Taverner, he published an Annotated List of Flowering Plants and Ferns of Point Pelee, Ontario and Neighbouring Districts. Some of his remarks suggest that hackberry may have become more numerous in the late nineteenth century and that it had since spread into the southern half on the peninsula,

Figure 19



Going along this road (the main road) . . . on this narrow strip between the west beach and the marsh, the black walnut, one of our finest trees, usually found in rich open woods or on river and creek bottoms, is frequent and apparently thrifty in pure sand, and the hackberry is very common. These two trees are very plentiful about half way to the south point . . . The dominant tree of the timbered portion, however, is the red cedar, and it is more or less abundant along the whole west side.¹⁸

The work and publications of the naturalists and scientists spurred interest in the creation of Point Pelee National Park.¹⁹ These men were able to make headway largely because of the establishment of the Commission on Conservation in the early 1900's under the chairmanship of Sir Clifford Sifton. This is not the place to discuss the history of the Commission in any detail, nor its connection with the history of conservation thought in Canada. Suffice to say that the effects of European settlement and extractive industry at Point Pelee were duplicated and indeed exceeded in many other parts of Canada and the U.S., contributing to growing concern for better land use management about 1900. Saunders and other members of the Great Lakes Ornithological Club were associated with the work of the Conservation Commission, and because of their contacts undoubtedly were able to bring the promise and the plight of Point Pelee forcibly to the governments attention. In a 1915 report, Taverner described the floral and faunal attributes of the peninsula for the Commission on Conservation. He noted that besides its "peculiar faunistic characteristics",

The Point forms one of the most important migration highways in America and in a station from which such phenomena can be studied with great advantage, as almost incredible numbers of birds follow its length on both their spring and autumn journeys.²⁰

Footnotes

- 1 Letter, P. Conover to the Minister of the Interior, November 26, 1900, Government of Canada, Public Archives, Manuscript Division, File 1509, Vol. 3.
- 2 C.K. Dodge, Annotated List of Flowering Plants and Ferns of Point Pelee, Ontario, and Neighbouring Districts (Ottawa: Department of Mines, Geological Survey, Memoir 54, No. 2, Biological Series, 1914), p. 4.
- 3 Letter, P. Conover to the Minister of the Interior, November 18, 1897, Government of Canada, Public Archives, Manuscript Division, File 1509, Vol. 3.
- 4 Letter, J. Dunne to W. Cory, July 19, 1911, Government of Canada, Public Archives, Manuscript Division, File 1694, Vol. 3.
- 5 Letter, J. Dunne to Deputy Minister of the Department of the Interior, April 14, 1914, Government of Canada, Public Archives, Manuscript Division, File 1694, Vol. 3.
- 6 Ibid.
- 7 Letter, L. Wigle to M. Cowan, March 2, 1900, Government of Canada, Public Archives, Manuscript Division, File 1694, Vol. 2.
- 8 Letter, E. Livingstone to the Minister of the Interior, October 25, 1910, Government of Canada, Public Archives, Manuscript Division, File 1694, Vol. 3.
- 9 Letter, L. Pereira to P. Conover, September, 1895, Government of Canada, Public Archives, Manuscript Division, File 2235, Vol. 1.
- 10 Government of Canada, P.C. No. 1460, May 30, 1912.
- 11 Government of Canada, P.C. No. 2829, October 15, 1912.
- 12 Government of Canada, P.C. No. 222, February 6, 1913.
- 13 Letter, C. Kingsmill to the Minister of the Interior, July 22, 1914, Government of Canada, Public Archives, Manuscript Division, File 1637, Vol. 2.
- 14 P.G. Maycock, An Ecological Study of the Forests of Point Pelee, Essex County, Ontario (Ottawa: National and Historic Parks Branch, 1969-1972), p. 78.
- 15 Ibid., p. 74.
- 16 Ibid., p. 76.
- 17 Ibid., p. 77.
- 18 Dodge, Flowering Plants, p. 5.
- 19 L. Bevan, History of Point Pelee National Park (Ottawa: Department of Indian Affairs and Northern Development, National and Historic Parks Branch, 1972), p. 24.
- 20 P.A. Taverner, "Recommendations for the Creation of three New National Parks in Canada", Sixth Annual Report of the Commission of Conservation (Ottawa: Department of the Interior, 1915), p. 304.

Chapter 9

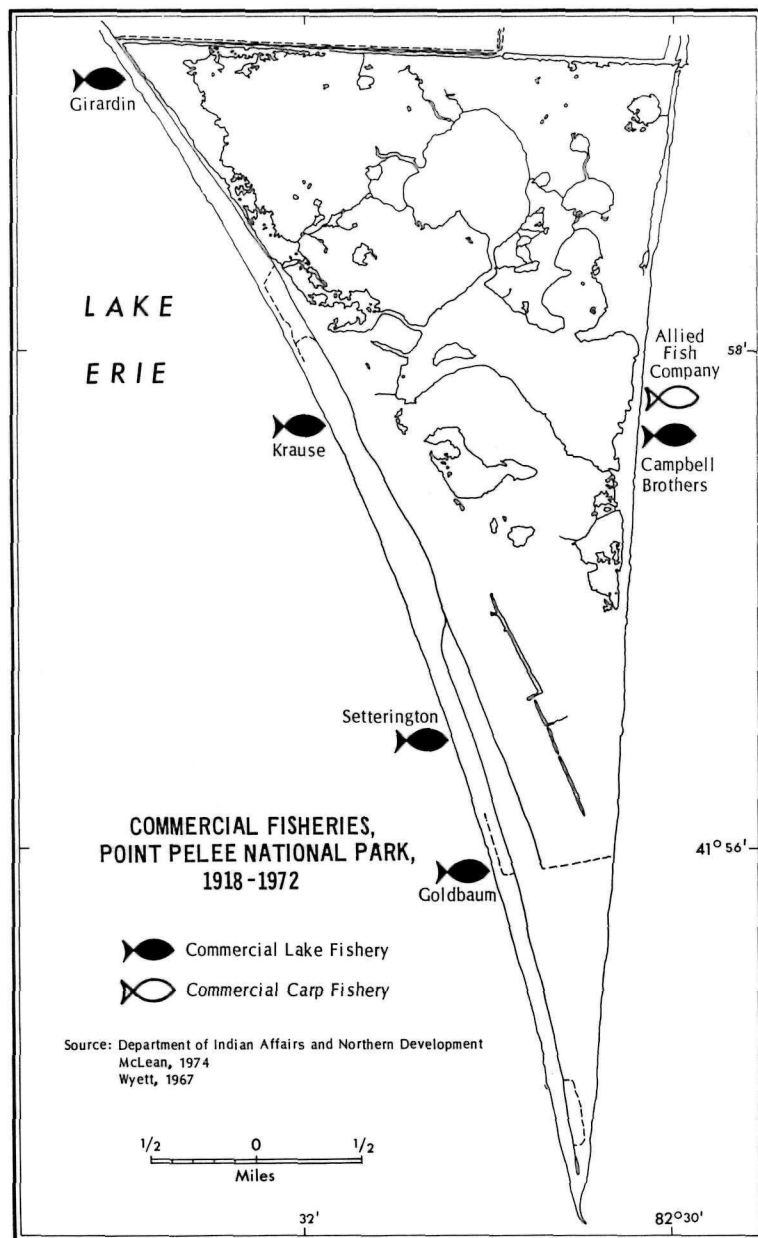
The National Park Period (1918-1977)

Changes in Previous Uses and Practices.

Introduction

With the May 29, 1918, proclamation of Point Pelee National Park, new land use policies and institutional arrangements came into effect on the peninsula. In past as a result of the development and implementation of a national parks policy, several pre-park activities such as fishing, trapping, agriculture, oil and gas exploration, and mining were greatly reduced or eliminated from crown and private lands within the park. However fishing, hunting, clearing, underbrushing, reforestation, beach protection and other activities continued to be important on and near the peninsula.

In 1918 approximately seven commercial fisheries were in operation within Point Pelee National Park of which six were largely concerned with lake fishing (Figure 20). Four lake fisheries were located on the peninsula's western shoreline. On the eastern bar, two fisheries were operated, one by the McLean Brothers from their Wheatley headquarters, the second by the Campbell Brothers of nearby Wheatley. While no buildings were erected by the McLean Brothers within the park, the Campbell Brothers constructed wooden shanties on the East Beach opposite the marsh ponds for fish storage purposes. These buildings, however, were destroyed by fire in 1931.¹



Pound nets appear to have remained in extensive use on Point Pelee. On the eastern side, as many as thirty pound nets were erected on leased water lots. On the west side of the peninsula, prior to 1949, some twenty seven pound nets were in operation. In 1949, following a poor fishing season, the more mobile trap net came into increased usage on Point Pelee. The utilization of the trap net also reduced the amount of shoreline area required by each fishery for equipment storage and repair. For example, the shoreline area used by the Krause fishery dropped from 1,000 feet to some 250 feet.²

By 1958 declining catches in the western basin and the government decision to acquire private land within the park " . . . to improve the scenic drive,"³ left only the Girardin and Krause fisheries in operation. While the Girardin fishery was moved north of the park in 1962, the Krause fishery continued to operate until 1969 when the lease on its 1.6 acre site expired. Similarly, government buildings associated with fishing and navigational safety were also removed. In March 1953 the life-saving station erected in 1921 to replace the earlier station was dismantled. A lighthouse capable of battery operation was subsequently built some six miles south of the tip.⁴

In the mid 1940's smelt fishing developed into a major seasonal activity on the peninsula. In the spring of 1959 some two million pounds were reportedly taken in a

three day period. Despite the short smelt season, extensive damage to shoreline vegetation was caused by fishermen. In this same period sport fishing from park shoreline areas also became important, particularly near the tip.⁵

The remaining commercial fishery located on the East Beach opposite Big Pond was primarily devoted to catching carp in the Pelee marsh. Operations of the Allied Fish Company centred on a pound net enclosure built directly west of a channel excavated between the marsh and lake. Shortly after the establishment of Point Pelee National Park, strong concern was expressed regarding the continued existence of the fishery. As early as 1919 local officials informed Park Commissioner Harkin that the fish company's interest in the park was "simply nothing."⁶ On November 27, 1919 W.A. Knister of Windsor, owner of the Allied Fish Company, was notified that future excavations of the channel would occur under the supervision of the Superintendent.⁷ Finding this "incompatible" with his business, Knister abandoned his fishery and unsuccessfully demanded \$4,000 compensation from the parks branch.

On February 11, 1920 Knister again applied for a licence to fish for carp commercially in the Pelee marsh. The licence was granted on the condition that Knister construct a concrete flume and traps which would prevent carp from entering the marsh from the lake and also regulate water flow between the lake and marsh. Knister

found the flume cost to be prohibitive and sold his fishery rights and buildings to the McLean Brothers in 1922. Later, in May, 1922 the Dominion Parks Branch permitted George Horton to open a channel between the marsh and lake to trap carp and dogfish. Writing to Commissioner Harkin on May 1, 1922, Honorary Park Superintendent Forest Conover reported that one fishing operation by Horton had lowered the marsh water level by some nine inches in two days. He also pointed out that "filth and dregs from the marsh were noticeable for three miles along the shoreline."⁸

With their purchase of fishing rights in the park marsh, the McLean Brothers employed new fishing techniques. Under an agreement with the parks branch, a gasoline engine coupled to irrigation pipes was utilized to pump water from the marsh. Following the lowering of the marsh water level to trap carp in the pound net, pumping was reversed and the water level restored. By this method as many as ten tons of carp were removed in one day. A similar operation was used in the Hillman Marsh fishery north of the park.⁹ Refused an extended lease, the McLean Brothers dismantled their buildings in 1930 and used the salvaged lumber to construct sheds at their larger Wheatley operation. Two additional attempts to fish for carp commercially in the Pelee marsh were made in 1932 and 1934.¹⁰

Signs of the fishing have quickly disappeared from the park landscape. Tarred nets and material can still be found here and there on the East Beach.

Hunting and Trapping

With the creation of Point Pelee National Park all hunting became subject to federal regulations. However, duck hunting was allowed within the park " . . . under permit from the Commissioner of Dominion Parks during such times as the Governor in Council shall from time to time decide."¹¹ There is no definite indication as to why this concession was granted but Snell (1974) has suggested that it was permitted " . . . in deference to long tradition . . . "¹²

Private lands in Pelee were made subject to hunting regulations similar to those for crown parks and forest reserves through declaration of a provincial Order-in-Council on September 3, 1918. The effect was to make Pelee National Park a "game sanctuary," although provision was made for "the destruction of noxious, dangerous and destructive animals."¹³ An array of such animals has identified and the provision quickly acted upon. In a June 26, 1919 letter to Superintendent Conover, Commissioner Harkin stated that:

Since masterless cats at large, living on valuable game birds are distinctly noxious you are authorized to instruct Warden Finlayson to shoot such cats on sight, providing however, that no cat must be shot within a quarter of a mile of any inhabited dwelling.¹⁴

On January 19, 1921 the Border Cities Star noted that "a rabbit drive was conducted within Point Pelee Park with 200 of the little pests destroyed."¹⁵ In contrast, Harkin denied several requests by park residents to hunt hawks, crows, and blackbirds. However, private landowners occasionally illegally hunted these and other birds. Coyotes seen in the park in 1945 were also classed as "dangerous and destructive". Muskrats were classed as "noxious," being trapped in the park marsh as late as 1958.

Since 1918 National Parks Game Regulations have permitted duck hunting to continue despite numerous attempts by concerned naturalists to eliminate the activity from the park.¹⁶ Hunting in Point Pelee National Park often is described as " . . . inconsistent with National Park philosophy and policy."¹⁷

Some information is available on early duck hunting and its possible effects in the Pelee area. On January 17, 1919 zoologist C.G. Hewitt noted that "shooting in the fall of 1918 within the park boundary was the poorest in years."¹⁸ In 1929 Harkin expressed the view that "scarcity of migratory game birds in the Point Pelee marshes is a condition due almost exclusively to the diminishing food supply."¹⁹ As early as 1919 local hunting clubs organized programmes to "feed the marsh" with wild rice and celery pods. However, in 1925 and 1926 observers commented on the decreasing waterfowl numbers and the sharp decline in the "usual quota of ducks."²⁰

Hunters demanded improved passage within the park marsh, particularly access to the marsh ponds. As early as 1922 logs were dynamited, water lilies cut, and channels deepened and widened to facilitate canoes and boats. Blinds were frequently used for duck hunting in the park, although in 1943 Clarke recommended their removal to ". . . improve the appearance of the marsh."²¹

Hunting had other impacts on park marsh. By 1965 government officials estimated that the marsh was annually receiving some 200 pounds of lead during the hunting season.²² More recently, Bull *et al.* (1973) have observed that:

. . . the building of blinds and the use of motors has its effects. In some cases, the bottoms of some of the smaller ponds have been cleared of most of the bottom growths to facilitate the hunters in pursuit of their sport and large amounts of shelled corn are dropped into the waters to lure ducks into gun range. The use of motors in the marsh has the effect of mowing the bottom growths from the channels and ponds and this must almost certainly increase the capability of the sunlight to penetrate to the plants the following season and thereby increase the amount of bottom fill-in. A potentially more serious problem is that an estimated 10% to 20% of fuel used by an outboard is discharged directly into the water. This ignores the actual effects of exhaust products.

Both the boardwalk and hunter/fishermen combination radically increase the potential of fire in the marsh.²³

Agriculture and Drainage

By 1918 private lands on the western bar had already undergone substantial levelling as the sand dunes were

flattened for crop cultivation. Asparagus was grown as well as peaches and burley tobacco. A thirty acre orchard began producing in the central part of the western bar in 1912. Small garden plots, some as large as 1/2 acre, were cultivated adjacent to the farmer's homes and produced beans, peppers, tomatoes, watermelons, and strawberries for home consumption. Acreage not utilized for crop cultivation served as general farmland and was used as woodlot or grazing land. On some lots large permanent homes were erected.²⁴ By 1931 some of the marsh borderland had been reclaimed through dredging and land filling.²⁶

The remaining acreage soon became subject to numerous land uses, notably recreation. As early as 1923 portions of private land within the park were subdivided and developed into "Lake Erie's finest summer home sites."²⁵ The Post property, or southern part of the Pelee peninsula, was sold to the National Parks Bureau in 1938. This purchase allowed the park management to exercise jurisdiction over all lands located east of the main park road and south of the east-west crossroad. Legal implications resulted in the abandonment of the apple orchard located on the property. In 1954 the remaining apple trees were cut down. Reforestation was carried out in the following year.²⁷

By the mid 1950's consumer demand for apples, peaches, and asparagus in Canada and the United States had

increased sufficiently to warrant the expansion of acreage devoted to these crops. More low lying land was filled and re-claimed. Advancements in dredging technology permitted this operation to be undertaken on a larger scale than previously. Between 1955 and 1963 a total of fifty acres were added to the existing seventy five acres of apple and peach orchards. Draglines operated eight months out of the year dredging ditches some sixty feet in width and twenty five in depth parallel to the marsh. The excavated organic material was deposited on the nearby land. As a result the eastern portions of some lots were raised as much as seven feet. The newly opened ditches and canals served a further purpose. As the ditches filled with water, they provided convenient sites for the operation of mobile irrigation pumps during the dry summer months.²⁸

Agriculturalists further modified the park landscape when high marsh water levels flooded the easterly low lying portions of their lands. They excavated channels through the East Beach to remove "excess water."²⁹ These channels were, at times, sixty feet wide. Originally these operations were undertaken by the farmers without parks supervision. By 1957 a permit was required. However, no guidance apparently was given as to the preferred location of the openings or other construction details. Other activities included the manicuring of park roadsides and the spraying of DDT in both the

orchards and campgrounds. The campground spraying operations were supervised by park personnel.³⁰

Property purchases by the National Parks Branch during the 1960's and early 1970's quickly eliminated agricultural land use from Point Pelee National Park. Originally designated for campgrounds the apple and peach orchards were immediately cut down and trees burned and bulldozed into windrows. At present these lots remain unused. No reforestation plantings have been undertaken nor have plans for future development been definitely formulated.³¹

Outside and north of the park on the reclaimed marshlands of Mersea Township, drainage and the protection of the agricultural lands were the major activities. The completion of the Marentette Drainage Scheme in 1953 brought 656 additional acres of farmland into production and, at the same time, completely dyked off the northern park boundary (Figure 17). Within the drainage schemes improvements were frequently made to canals and pumps because of sedimentation and settling. Occasionally, high lake levels combined with northeasterly storms to produce flooding within the schemes. Subsequently protective structures were constructed. For example, following severe flooding in November, 1972, an \$883,000 limestone breakwall was erected on the eastern shoreline of Point Pelee between Concessions A and B. These drainage improvements and hazard adjustments often involved

substantial subsidization by the provincial and federal governments.³²

Few detailed studies have been undertaken to ascertain the economic, social, and ecological implications of continued agricultural production on these reclaimed marshlands. One preliminary examination by Hubert (1973) pointed out that flooding within the schemes created productivity losses and the need for a comprehensive drainage system.³³ More recently, Nelson *et al.* (1975) have noted that a relatively narrow range of expensive engineering adjustments such as groynes and breakwalls have been used to control flooding and related ecological elements and processes along both the Pelee and Rondeau shoreline areas. Basically these adjustments have been justified on the grounds that they promote food and agricultural production. However, they have not been subject to detailed evaluations of their economic, social, or biophysical benefits and costs. Few alternatives such as land use controls or public purchase and ownership of coastal lands highly susceptible to flooding and erosion appear to have been considered in managing these areas.³⁴

Use of the reclaimed marshlands has various affects on the park landscape. For example, water from the drainage canals of the Concession Drainage Scheme has been pumped into the park marsh. In 1971 a private landowner dredged a channel through the East Beach just north of the park

boundary, linking the Marentette scheme with the lake and subjecting the park marsh to direct lake level fluctuations and storm action.³⁵

Clearing, Underbrushing, and Reforestation

Evidence on the scope and intensity of early clearing and reforestation about the turn of the century is scarce.³⁶ J.S. Mills, an employee of the Canadian National Parks Engineering Service, provided a brief insight into the extent of clearing as of June, 1922.

At the present time the Department is developing the west portion of the Park. We have improved the roadway, constructed a bathhouse, pavilion, wells, cleared picnic grounds and parking area.³⁷

By 1925 considerable interest was being expressed by citizens of nearby communities in future park development. On July 14, 1925 a well-publicized organizational meeting in the Leamington townhall resulted in the formation of the Point Pelee Park Patrons Association, "an association to boost Point Pelee National Park and assist the Department in beautifying and spreading the fame of this historic spot."³⁸ This citizens organization which by 1926 had grown to a total membership of some 300 people was chiefly "concerned with roads and scenic development"³⁹. While it is difficult to understand what was meant by "beautifying" the park, in an August 26, 1925 letter to Superintendent Conover the association recommended that he "remove the underbrush from the area between the east and west roads and the crossroads to

induce the growth of natural grasses and to provide picnic grounds for visitors."⁴⁰

"Clean up" soon . . . became a regular activity of maintenance crews . . . giving the appearance of a neat, carefully-manicured urban park."⁴¹

People put up a tent anywhere they could find space and left it up all season, coming and going on week-ends and holidays. They took personal pride in 'cleaning up' the plot and its surroundings. All dead or dying trees were removed; all 'small stuff' was cut out and the earth raked over to clean up all debris. Water evaporation increased. The appearance of each tent site, some of which were quite large, was a matter of social prestige. During the depression and the thirties up to the time of the Second World War, the Core Forest in general was heavily used this way and became known as 'Little City'.⁴²

In a March, 1939 letter to F.H.H. Williamson, Controller of National Parks, Point Pelee, Superintendent Grant outlined his clearing operations.

With respect to the brush cutting and burning the men went from one end of the park to the other disconnecting grape vines and bittersweet from the trees and in this manner saved thousands of trees. In addition to this I used 300 oak (selected from all over the park) for groin work which were detrimental to the park because of rotting. The management of the park is evident by the large numbers of beautiful birds.⁴³

In a reply to Grant, Williamson expressed concern regarding the underbrushing activities:

Also the heavily forested portion of the east shore just below the crossroad is being gradually thinned by cutting trees. The excuse for cutting these trees is that they are necessary . . . to stop wave erosion on the east shore. If more trees are cut for this purpose or other purposes this small piece of forest will not last long.⁴⁴

Two months later, in May, 1939, H.F. Lewis of the Parks Bureau, H.A. Senn of the Department of Agriculture, and W.E.D. Halliday of the Dominion Forest Service undertook an investigation of Point Pelee National Park " . .

with a view to the conservation of the natural flora and fauna of the area."⁴⁵ Their report provides a detailed account of the major "disturbances" affecting the park at that time.

. . . the main disturbances . . . are the result of extensive underbrushing, camping use and the driving of cars off the roads along trails and under trees. Grass and weeds are replacing the natural ground vegetation, windfall is accentuated, and natural reproduction of trees and shrubs is lacking. Sand-blow and invasion are taking place . . . fragmenting the original stabilizing vegetation, and the tops of hillocks are blowing out.⁴⁶

A gradual reduction in clearing and underbrushing and a shift in related management policies were evident by the late 1950's. While underbrushing was still carried on along roadsides and near powerlines, Purdue (1957) observed that "certainly there is no longer any indiscriminate cutting of trees or underbrushing. Firewood has been placed near camping and picnicking areas so that visitors have no need to cut down trees for their campfires."⁴⁷ Although "indiscriminate cutting" appears to have stopped, between 1958 and 1963 dead trees and fallen limbs were utilized as campground firewood and as posts. In 1961 park maintenance crews "worked all winter" to obtain dead trees which would supply the fuel needs of

the summer campers.⁴⁸ Brush, collected by these operations, was piled along the East Beach road and burned. By 1964 these activities had been curtailed except along park roads and no further clearing of dead trees or limbs was undertaken.⁴⁹

Government officials often encouraged park reforestation efforts. In 1955 Scott noted that:

. . . there is very little tree regeneration even in the nature reserve. I am not qualified to give the reason why there is little regeneration of the forest but if it is so, then it seems to me we should assist nature by planting seedlings . . . I see no point in keeping the old apple trees and suggest that an area within the orchard portion of the nature reserve be cleared and a tree nursery established . . . a tree nursery on Point Pelee seems to me to be a project which would be well worth while and would pay dividends for future generations.⁵⁰

However, these reforestation attempts appear to have met with failure. Flanagan (1967) observed that " . . . mother nature has done a far better job than we have in providing for reversion of the area to a natural state."⁵¹ He also made recommendations concerning future park reforestation efforts.

After seeing what had been achieved in the past through planting and also what had been done by mother nature, I came away from the Park with the definite opinion that no major planting program should be initiated until we can devise methods to achieve not only a higher percentage survival than past plantations have had but also methods which will result in the planted trees growing at a normal or near normal rate.⁵²

Some reforestation efforts did succeed. Following a detailed vegetative study, Bayly and O'Neill (1972) indicated:

It is of some interest that of all the introductions by mass recorded reforestation only the Black Locust (*Robinia pseudoacacia*) is successful. The other species listed are neither reproductive or vigorous.⁵³

Oil, Gas, Mining, and Sandsucking

Although oil and gas leases on crown lands were terminated soon after the turn of the century, leases on private lands remained in effect for several years after the creation of Point Pelee National Park. While it is not known whether drilling operations were ever conducted on southern Point Pelee, the leases were cancelled on April 15, 1925 because the annual rental fee had not been paid. The lots were soon subdivided into cottage sites. Three commercial aggregate mining leases were still held on the peninsula. However, it is difficult to ascertain how much sand and gravel was extracted from these areas.

As early as August 1918 geologist E.M. Kindle, suggested cancelling these leases.

The direct removal of gravel from the Point Pelee beach could hardly fail to accelerate its erosion and for the protection of the Point means should be taken to prevent such removal.⁵⁴

On October 15, 1918, faced with the imminent cancellation of his mining lease, J.R. Thomson wrote to the Deputy Minister of the Interior stating that he " . . . didn't

remove any gravel or sand and neither did Young or Drake."⁵⁵ Thomson asked that the leases not be cancelled. In spite of this request, the parks branch terminated the three mining leases on April 1, 1919.⁵⁶ With these cancellations Harkin largely excluded commercial sand and gravel extraction from government lands within the park.

However occasionally permission has been given to Mersea Township authorities and to park residents for the "free" removal of sand and gravel for use in road and home construction. Similarly, government officials at times have utilized beach sand and gravel to construct and improve park roads. In 1939 Lewis and his colleagues, after examining the construction of a road on the East Beach north of the crossroad, noted that " . . . several borrow-pits have been dug in the already narrow sand spit to provide material."⁵⁶ Lewis also pointed out that the removal of beach material to complete the road was " . . . further disturbing an already undesirably low and weak condition."⁵⁸

Commercial sand and gravel leases continued to be held by the Point Pelee Sand and Gravel Company on private lands on the southern peninsula. While not legally dissolved until government's purchase of the Post estate in July 1, 1938, the company's sand and gravel leases apparently were effectively terminated on May 10, 1921 because of nonpayment of rent.⁵⁹

In the adjacent offshore waters large scale dredging continued in spite of persistent protests by local residents and park authorities.

In a letter to Dominion Entomologist C.G. Hewitt on July 2, 1918, Superintendent Conover gave his view of the impact of the sandsucking operations.

Before the removal of the gravel and sand from the end of the Point, the bar, running out in the lake, was two and one-half miles long, terminating at the first light house . . .

The upland sand and gravel terminal at the 'Point' has been removed within the period of three years . . . the beginning was slight, but operations have been heavily reinforced during the past three years being greatest in 1917, the sand suckers operating along the sand bar at times from one-half to one and one-half miles from the end of the point.⁶⁰

In response to these observations Kindle examined the peninsula and concluded that:

. . . I am of the opinion that the removal of gravel and sand from the lake bottom at a distance of 5000 feet or more in the area South of the Point will not sufficiently affect erosion on the Point to warrant any local attempt to prevent such dredging.⁶¹

While the relationship between sandsucking and erosion on the Pelee peninsula is difficult to understand, the possibly detrimental impact of sandsucking has been repeatedly emphasized. An August 13, 1920 article in the Border Cities Star noted that "a natural harbor for mariners has been destroyed by sandsuckers with an average of 5 loadings per day."⁶² This same article commented on other potentially very significant biological implica-

tions, pointing out that "the Pelee Reef, noted for productiveness in the Lake Erie fisheries and known as the famous spawning grounds for the sturgeon and smaller fry, has been removed."⁶³

To satisfy mounting local pressure that the sandsucking be stopped, Kindle carried out a second examination in 1933. Again, sandsucking was dismissed as a factor contributing to erosion on Point Pelee.

In the absence of any evidence of a northward movement of sediments over the bottom of Point Pelee, removal of gravel from the bottom 5,000 feet or more south of the timbered end of the point appears to be a negligible factor in shore erosion on the east side of Point Pelee.⁶⁴

Few detailed scientific inquiries into the significance of sandsucking operations have been completed.⁶⁵ Recent comprehensive studies of nearshore sediment movement by Coakley (1972) and Coakley and Cho (1972) have illustrated the presence of " . . . northward trends in . . . gradients compatible with significant sediment transport in that direction in the vicinity of the tip of the Point."⁶⁶ If this is true, sandsucking may have interfered with the " . . . occasional northward transport of sand in this area."⁶⁷ In recent years park officials, private residents, and sandsucking companies have become involved in legal disputes concerning erosion and its relationship to sandsucking.⁶⁸ At present sand and gravel leases have not been renewed by the provincial government and no sandsucking operations are occurring.

Shore Erosion and Beach Protection

Between 1918 and 1972 beach protection became a more frequent activity as several types of structural adjustments were introduced to prevent shore erosion both within the park and on the adjacent private shoreline to the north. Some black willow trees were planted on the East Beach in 1929, and in 1931 efforts were made to prevent erosion on Point Pelee by planting willows on the eastern shoreline of the peninsula. Wire-mesh groynes also were placed at 100-foot intervals along the beach. However, an examination in 1932 revealed that " . . . the groynes had not proved effective; in most cases the wire mesh had been knocked down by wave and ice action, and the supporting poles were bent over or had disappeared entirely."⁶⁹

In 1937 rising lake levels prompted additional extensive beach protection measures near the tip of the peninsula. Between 1937 and 1939 "over 5,200 feet of beach protection work"⁷⁰ was completed by the National Parks Branch on the eastern park shoreline using timber groynes and willow plantings. These proved ineffective.

In 1943 C.H.D. Clarke recommended that more trees be planted and that additional groynes be erected.

The sand spit is as short now as it has ever been, and some of the planted willows are undergoing wave erosion. However, the prospect of lower water gives hope that it will again build up. In this area every effort should be made to establish willows on the point.⁷¹

The first of these beach protection projects began in 1948. In that year " . . . seven staggered rows of oak piling . . . "72 were placed parallel to the eastern shore south of the crossroad. After examining the area, Tener (1949a) commented that:

. . . storms of the winter of 1947-48 increased the attrition of the lake edge, under-cutting more trees and hurling literally tons of sand 30 or more yards within the woods, visibly altering the vegetation. The groynes established along this beach were ineffectual and a loss of money and effort. The great depth of sand and the tremendous force of waves during the storms have prevented the construction of effective barriers.⁷³

Between 1949 and 1953 approximately \$85,000 was expended by the National Parks Branch on various experimental beach protection methods " . . . in order to find the most effective and economical protection system."⁷⁴ In 1949 a large section of the eastern shore was protected.

Oak piling was installed along 1800 feet of beach along the Nature Preserve, east shore; 200 feet of sheet piling was set up 4600 feet south of the cross road, east shore; concrete crosses were set along the shore around the point.⁷⁵

The sheet piling was later considered to be "ineffective" and was removed. In 1950 Superintendent Grant suggested that additional oak pilings be installed and "the original piling was extended to 1200 feet more."⁷⁶

In 1960 a new engineering device was introduced with the erection of a limestone breakwall on the southwestern

shoreline near the tip. Later, in 1961, this breakwall was extended southwards. In 1961 the park engineer remarked:

. . . that where funds are limited, it was of prime importance to use rock so that as much of the shoreline as possible can be protected'. The only drawback mentioned to me was: 'As the material in front of the rock recedes, the rock wall will settle and will require additional materials at intervals of approximately five to ten years.'⁷⁷

In December, 1965 erosion north of the breakwall resulted in the extension of the structure some 936 feet northward. Erosion was still evident in 1968 with some 550 cubic yards of additional gravel and stone fill being placed behind the breakwall. Concern was expressed about the aesthetic character of the breakwall. In July, 1970 one government official commented that " . . . the wall protects but destroys the shore for Park purposes and undoubtedly has a detrimental effect on adjacent sections of unprotected shoreline."⁷⁸

By 1971 shore erosion was again perceived to be serious and gabion baskets which had been partially successful on private shoreline areas northeast of the park were placed on the beach. Observations in August, 1972 revealed that while the gabions " . . . were in good shape and appeared to work well,"⁷⁹ erosion was occurring north of the structures. In marked contrast, by the summer of 1973 it was evident that " . . . the gabions were in so bad a condition that part of the wire mesh had to

be removed."⁸⁰ Only one portion of the gabion structure reinforced by groynes reportedly worked "well."

Major beach protection efforts also took place on the private shoreline areas northeast of the park. These efforts had implications for the park, particularly the adjacent North East Beach area. In 1969 cottage owners attempted to replenish their beach by constructing groynes and gabion baskets. These structures were described as "effective and pleasant"⁸¹ in August, 1970. Later in 1970 the provincial government undertook the construction of a rock groyne directly north of the park to protect the dredged channel connecting the Marentette Drainage Scheme with Lake Erie. Subsequently "many changes" were evident downcurrent from the groyne. On the North East Beach beach profiles changed radically and by 1972 " . . . all concerns about erosion were towards the North East Beach situation."⁸² In July, 1972 storm waves breached the sand berm reportedly causing "heavy damage" to the park marsh. In August of the same year government officials reported that the beach area south of the groyne was " . . . eroded directly behind . . . and that the vegetation for about 1000 feet has all but been annihilated".⁸³ Shore erosion still persists in this area today as waves wash over the sand berm and into the marsh.

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Chapter 10

The National Park Period (1918-1977):

Recreation, Conservation and Management

Introduction

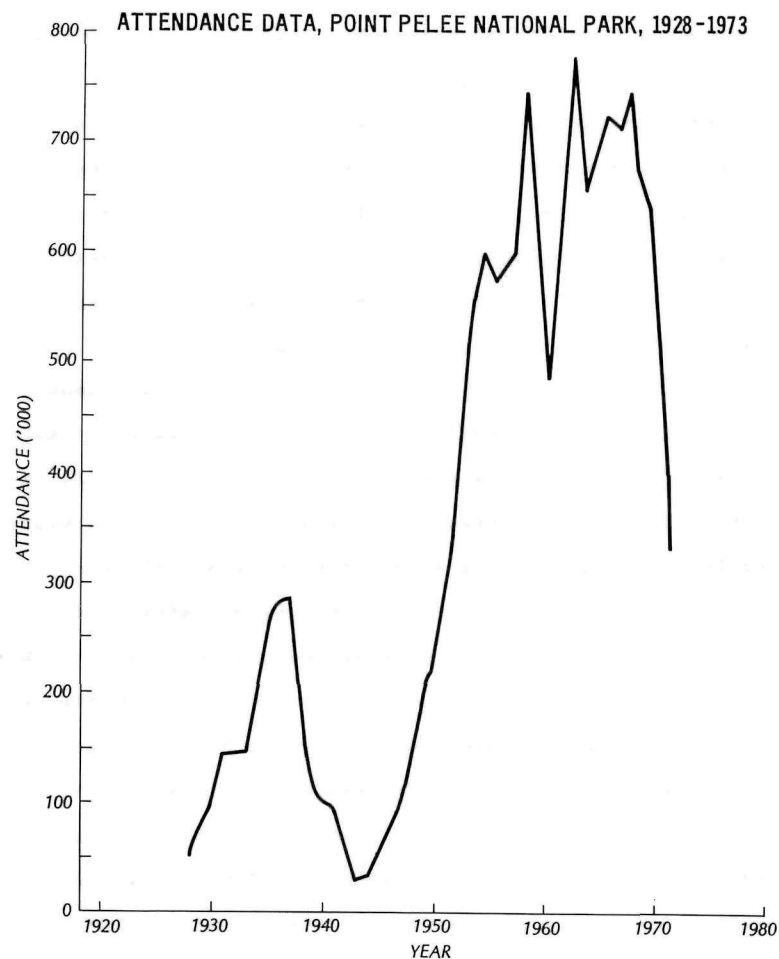
In addition to the activities discussed previously, between 1918 and 1972 other land uses, particularly recreation and cottaging, substantially affected the park landscape. As early as the 1920's and 1930's Point Pelee was experiencing high visitor attendance and extensive cottage development. By 1939 government officials expressed strong concern about the deteriorating landscape and, at the same time, suggested several solutions to park management problems. In the late 1930's park management began to adopt a more "scientific" approach to land use problems, a trend which became more apparent during the 1940's, 1950's, and 1960's. This period also saw the emergence of a policy which slowly emphasized land use planning and interpretation programmes within the national parks system. With the approval of the Point Pelee National Park Master Plan in April, 1972 and the adoption of the Point Pelee National Park Interpretive Plan in June, 1972, these changes came into effect on the peninsula. Yet, by January, 1973 resource data gathered for park interpretive purposes suggested attractive alternatives to the land use zoning proposed in the new master plan.

Recreation

Recreation was an important activity on Point Pelee long before the park's creation, although the few descriptions that exist prior to 1922 are incomplete. As early as the summer of 1889 caretaker Conover reported to the Minister of the Interior that thousands of people had visited the peninsula. Visitors primarily travelled on foot or by horse-drawn wagon, although in 1905 and again in 1915 government officials expressed confidence that an electric railway would soon be extended from Leamington to provide service to the naval reserve.¹

These hopes did not materialize and by the close of the second decade of the twentieth century " . . . the horse and buggy age was yielding to the motor car."² Throughout North America technology, population growth, higher incomes, increased leisure time, and other factors combined to accelerate both the availability of and the demand for outdoor recreation.³ Situated close to the growing urban populations of Detroit, Windsor, Leamington, and other cities and towns, the government-owned lands at Point Pelee afforded excellent opportunities for swimming, picnicking, camping, boating, hiking, bird watching, and other recreational pursuits. Simultaneously more and more land on Lake Erie was being purchased and withdrawn from public access. These factors combined with the mobility offered by the automobile to result in increased use of Point Pelee National Park.

Figure 21



Source: Department of Indian and Northern Affairs

Shortly after the park's establishment the Dominion Parks Branch undertook several developments for visitors. In 1922 roadways were "improved" and parking lots as well as a bathhouse, pavilion, picnic grounds, and other structures were constructed.⁴ In this same year Superintendent Conover reported that park roads had fallen into a state of disrepair as a result of damage caused by "heavy motor travel."⁵ Two years later, on October 25, 1925 park officials reported to Commissioner Harkin that some 45,000 people had visited Point Pelee between May and September. During the same five month period approximately 11,250 cars had used the park roads.⁶

By 1939 " . . . public visitation was high and impairment was far advanced"⁷ (Figure 21). Several factors appear to have contributed to this "impairment." In the late 1930's unregulated automobile traffic and uncontrolled camping had become important park activities. On the west side of the peninsula trails leading to the beach appeared in many cases to be used by cars. The trails opened onto the beach "in fan-shaped areas of exposed sand". The sides of the trails also showed "sand destruction."⁸ Within the forest stands activities had led to the " . . . virtual elimination of the shrub cover and lower tree story, creating an artificial condition in what was a well-stocked, many layered, closed stand."⁹ In the late 1930's several camping areas were closed and fenced off " . . . to permit regeneration of tree, shrub,

and plant growth."¹⁰ By 1939 visitor attendance had also resulted in the establishment of two hotels in the park.

As in other national parks throughout Canada and the United States, attendance at Point Pelee declined significantly during the war years. In 1942 Clarke (1943) noted that the situation was "evidently better" and commented that "undoubtedly the reduced volume of tourist traffic has something to do with this . . . "¹¹

Public interest in the future of Point Pelee was renewed with the August 8, 1945 formation of the Advisory Committee for Point Pelee National Park. Still functioning today, the committee has been composed of local businessmen, sportsmen, park residents, and the park superintendent. From time to time proposals have been submitted to the parks branch for the possible "improvement" of Point Pelee. Several suggestions have been made for expansion of recreational facilities and control of the marsh water level by pumping. However, in recent years members have commented that the Committee is not effective.¹²

Between 1949 and 1953 several "improvements" to park facilities were completed. However, these encountered strong resistance from naturalists and other concerned individuals and organizations who feared for " . . . the survival of the unique flora and fauna found in the Park."¹³ In 1949 the main park road was paved. Between 1951 and 1953 four large parking areas were completed.

Two large lots were constructed on the West Beach, one near the tip, the other near the park entrance. Another parking lot was built on the East Beach opposite the crossroad. A fourth area was completed near the eastern tip. Scott (1955) calculated that these lots, combined with parking spaces available on private property, enabled a maximum of 6,000 cars to be accommodated within this small park.¹⁴ Buildings for both park officials and maintenance equipment were erected and a second lane was added to the park entrance. In addition, park camping areas were consolidated into one major campground. During this four year period "considerable landscaping . . . was undertaken and maintenance generally was improved . . ."¹⁵

In the mid 1950's several studies were initiated by the parks branch in response to " . . . the feeling of concern by wildlife officers and conservationists about the effect the increasing popularity of the Park as a recreational area had on forest growth."¹⁶ Observations contained in these reports provide evidence that landscape "impairment" was well advanced. Scott, in 1955, noted:

. . . that there are approximately 45 side roads which lead to the west beach from the main highway. Along these short stubs the people park their cars and destroy the undergrowth with the result that the soil has become churned up and there is no opportunity for the bush to regenerate.¹⁷

By 1962 it was apparent that Point Pelee was "under severe stress."¹⁸ Muir (1962) noted that "the system has already worked only too well, and the Park now bulges at the seams during peaks in attendance."¹⁹ With no foreseeable levelling off in attendance, he predicted that "extraordinary measures" would probably be necessary to preserve " . . . the unique character of the flora and fauna of Pelee."²⁰ Muir also recommended that Point Pelee " . . . be placed in a special category of Parks in the system requiring intensive remedial treatment."²¹ While this recommendation was not acted upon, in the mid 1960's the National and Historic Sites Branch implemented master planning as an important tool for future developments within the national parks system. However, master planning efforts did not always meet with approval of the public or parks officials.

In the 1960's visitor attendance at Point Pelee remained high. Between 1965 and 1970 average attendance at Point Pelee was 703,282 per year or approximately six percent of all visits to Canadian national parks. Studies of park visitors conducted in the late 1960's at Point Pelee revealed that the average length of stay was approximately 4.1 hours. Over 90 percent of the park visitors were found to be from Ontario (over 60 percent) and Michigan (approximately 30 percent).²² Visitor participation in several activities during the spring and summer of 1968 is summarized in Figure 22.

Figure 22: Visitor Participation Rates 1968,
Point Pelee National Park

Spring	Percent- age	Summer	Percent- age
Swimming	48.1	Swimming	33.2
Picnicking	14.4	Picnicking	16.7
Boating	4.3	Hiking	7.7
Fishing	4.3	Naturalist Programme	6.6
Hiking	3.4	Fishing	5.0
Social Activities	2.2	Social Activities	4.2
Naturalist Programme	1.3	Boating	4.0
Water Skiing	0.6	Water Skiing	0.7
Other	20.2	Other	21.3

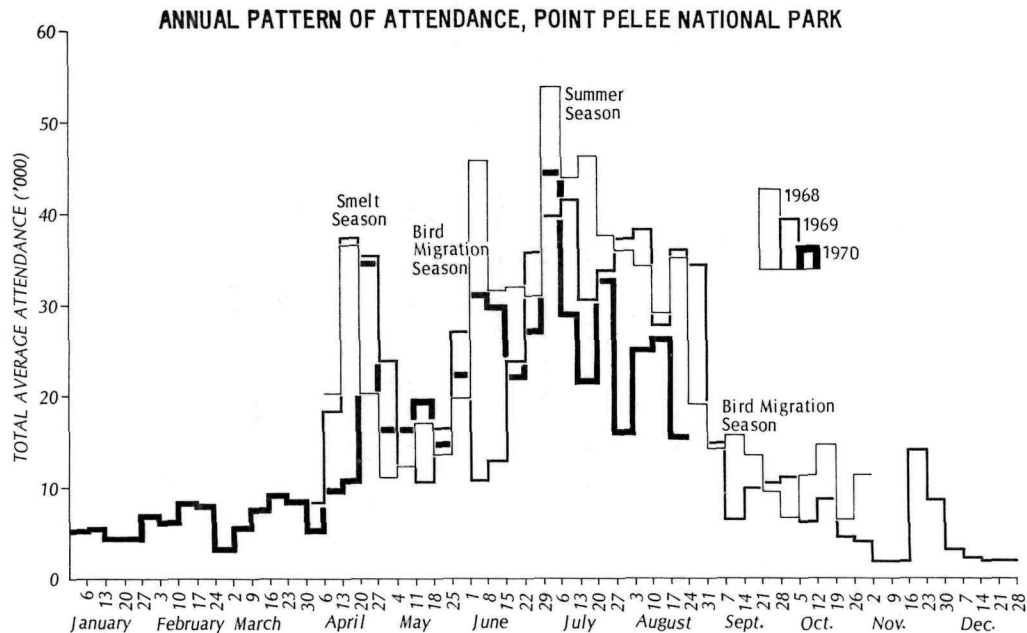
Source: Department of Indian Affairs and Northern Development,

The annual attendance pattern at Point Pelee for 1968, 1969, and 1970 is presented in Figure 23. Attendance tends to fluctuate being high during the smelt and bird migration seasons and also on good weather days in the summer months.²³

Despite a gradual decrease in attendance during the early 1970's, the effects of high visitor use remained quite visible on the landscape. Maycock (1969-1972) has pointed out that:

Paths . . . created through the dry upland woods on unconsolidated sandy substrates, if they occur within the forest, generally remain unvegetated due to continuous churning up of the sand. In other less fre-

Figure 23



Source: Department of Indian Affairs and Northern Development

quented situations the paths may be compacted by trampling and become favourable sites for the growth of various introduced weeds.²⁴

In this same period park officials emphasized the introduction of new management strategies designed to regulate recreational impact.

. . . the probable future role of the Park will be that of intensive use and controlled natural environment. It is foreseeable that considerable restriction of some present uses will be required while at the same time encouragement of other uses will be in order. The possibilities of bringing Pelee into better conformance with the non-impairment terms of the Parks Act by eliminating camping should be seriously examined.²⁵

Several steps were subsequently undertaken to achieve these objectives. In 1971 the number of camping sites were reduced from 155 to 55. Later, in 1972, family camping was eliminated as an activity within the park, although two group camping sites capable of holding 90 people still remained in operation. In 1971 a new system of vehicular transport was initiated to reduce automobile use within the park. Between April and September, automobiles were restricted to the area north of the cross-road. In their place a public transit system using propane-powered trailer trains was introduced. Implemented " . . . to enhance the visitors' experience, increase management control and improve the quality of the natural environment . . . ,"²⁶ the transit system represented the first serious attempt to control visitor distribution and

impact. Several months later, with the approval and adoption of the Point Pelee National Park Master Plan in April, 1972, recreational activities within the park became subject to land use plans designed:

. . . to ensure that migratory and other birds and unusual southern vegetation which add greatly to the natural beauty of the Park and serve as an additional attraction to the large numbers of people who visit it each year, for pleasure and to study wildlife, may be adequately protected.²⁷

Cottaging

In 1897 caretaker Conover was approached by persons who wished to lease cottage lots within the naval reserve. While he was unable to grant these early requests, on November 1, 1901 Conover informed the Minister of the Interior that "squatters were selling holdings to people in Leamington for summer homes and for growing peaches."²⁸ Although it is difficult to determine the location of these early purchases, Essex County assessment rolls reveal that by 1910 several Leamington residents had acquired property and had subdivided it into six cottage lots varying in size from 1/4 acre to 1 3/4 acres.²⁹

By 1922 considerable pressure was being placed upon the Dominion Parks Branch to lease crown lands within the park for cottage purposes. Mills, who examined the possibility of leasing the East Beach in June, 1922, commented:

With the exception of the east and west shores of Point Pelee, I am informed that

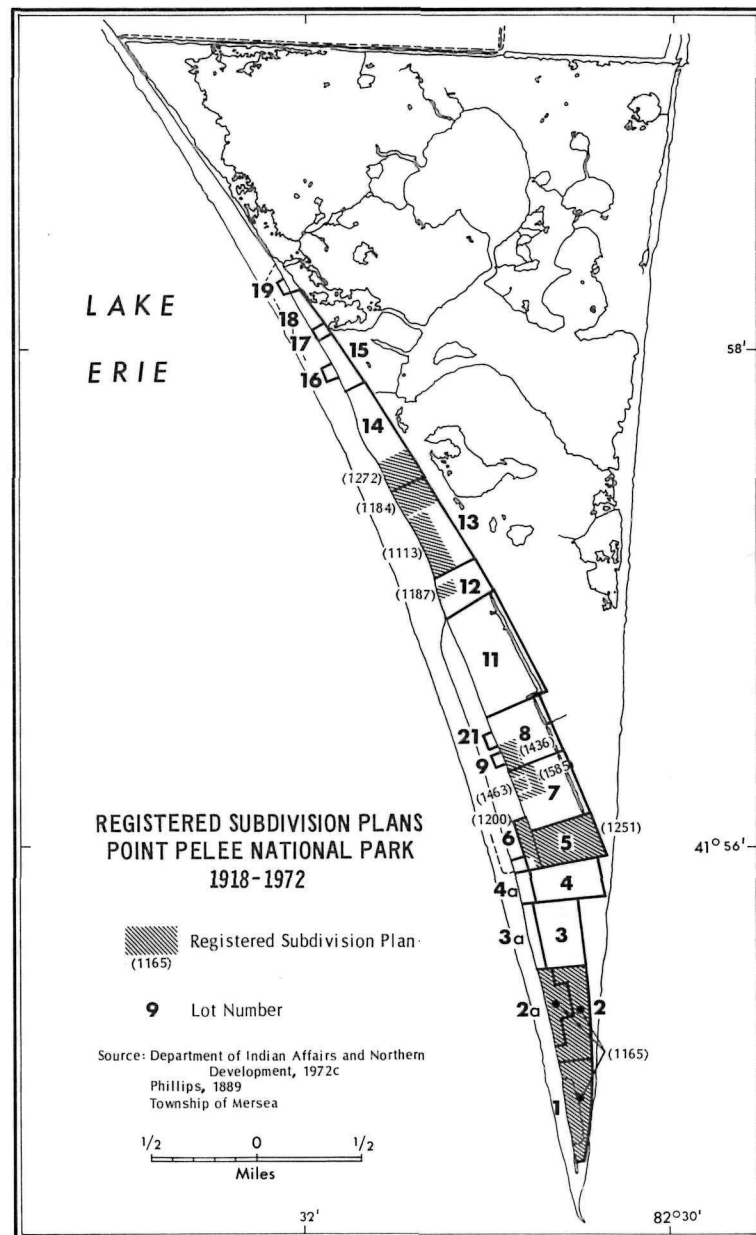
practically all the land fronting on the lake extending from Sandwich on the west to Wheatley lying east of Point Pelee has already been taken up either by syndicates or private parties. These lands are in good demand from the residents of Detroit, Windsor, Walkerville, Sandwich and surrounding districts as favourable sites for summer residences . . . In regard to the value of the lake frontage property, I understand that lots along the westerly shore of Point Pelee, just north of the Park boundary are selling for \$800.00 and up per lot.³⁰

Although Mills made no recommendations as to the granting of cottage leases " . . . as the question of policy is involved,"³¹ all applications to purchase crown lands were denied including one 1937 offer from several Detroit businessmen to buy Pelee's west shore for \$11 million. In contrast private landowners within the park were not bound by the "policy" restriction and proceeded to subdivide unusable portions of their land into cottage sites (Figure 24). These lots were subsequently sold to both interested individuals and commercial land development companies.

Between 1924 and 1958 eleven registered cottage subdivisions were developed on private lands within Point Pelee National Park. However, not all these developments were successful in attracting buyers nor were cottages erected on all purchased sites.

Cottage owners also played an important role in introducing exotic plants into the park. Bayly and O'Neill (1972) concluded that both the Pecan Tree (*Carya illi-*

Figure 24



noensis) and the Tree of Heaven (Ailanthus altissima) had been introduced to the park by cottage owners, the latter exotic " . . . rapidly dispersing in the park."³² Lilac was also found on several sites. Occasionally, trees native to Point Pelee were allowed to remain on the cottage lots, providing " . . . shade, protection and privacy."³³

While several government officials recommended the purchase of private land within Point Pelee National Park, it was not until 1964 that a formal policy of land acquisition was undertaken.³⁴ Throughout the 1960's and 1970's, cottaging and other private land uses have been gradually eliminated from the park landscape.³⁵

Conservation, Preservation and Scientific Management

With the creation of the Dominion Parks Branch in 1911, management of federally owned parks and forest reserves became centralized under one unit administered by Commissioner J.B. Harkin. As well as establishing new national parks and promoting recreational activities within the parks to provide necessary operating revenue, Harkin, during his twenty five year tenure, also was actively concerned with " . . . the idea and value of wilderness, perhaps as a result of contact with American ideas."³⁶ Under Harkin's leadership, the parks branch slowly " . . . began to emphasize the scientific, aesthetic, and spiritual values of the 'wild' . . . " ³⁷ National parks management was affected accordingly. In

"the period from about 1911 to 1940, Harkin and his colleagues slowly promoted the preservation and protection of park landscapes, particularly in the biological sense."³⁸ Strict fire control policies were introduced and the protection of certain "desirable" animals such as elk and deer was encouraged.³⁹

However, the effects of these management changes were not always evident at Point Pelee. As early as December, 1918 different viewpoints on the use and future of the park were being expressed by interested citizens of the Pelee area. On December 16, 1918, E. Kerr, secretary of the Essex County Wild Life Protection Association, commented that:

. . . an attentive ear is being accorded the guerillas of destruction instead of those keenly interested in the maintenance of wild areas and landscapes for future generations.

Do you think it possible for the 'Park' to look favourably upon the conservationists and marshlands and Park lands protectionist viewpoint?⁴⁰

Later, on June 30, 1920, James White, assistant to the chairman of the Commission of Conservation, urged " . . . compliance with the regulations regarding unauthorized use of park lands."⁴¹ While the significance of these statements with respect to park policy development is not completely known, regulations were soon attached to the carp fishery operating in the Pelee marsh. Also, on June 1, 1923 a Nature Preserve was created in the southern portion of the park. Several years later, on January 28,

1926, Commissioner Harkin informed Superintendent Conover that the "Parks Policy is generally one of conservation."⁴²

In the late 1930's new park management strategies were initiated within the Canadian national parks system. Ecological research was conducted by biologists such as Banfield, Cowan, and Green on a variety of different management problems, mainly in the western national parks. These research efforts have been described as "the first serious attempts to administer the parks on a scientific basis and therefore constitute a landmark in the evolution of national park policy and practice."⁴³

In May, 1939 H.F. Lewis, H.A. Senn, and W.E.D. Halliday conducted an "examination" of Point Pelee National Park. The terms of reference for their investigation were indicative of the new "scientific" approach.

1. To examine Point Pelee National Park with a view to the conservation of the natural flora and fauna of the area.
2. To recommend the adoption of measures to effect such preservation, including the setting aside of reserved areas, keeping in view the continued use of portions of the area for recreational purposes.
3. To recommend steps towards rehabilitation of any areas where this is considered desirable.⁴⁴

As well as concluding that underbrushing, uncontrolled camping, and unregulated automobile traffic were the major "disturbances" at Point Pelee, Lewis and his col-

leagues were also among the first to articulate management problems facing the park administration. Although nearly 40 years old, their remarks sound much like those of a present-day environmental manager.

The land area of the Park is small, and the number of visitors is large; these contrasting facts intensify the problem of balancing what are virtually two opposing interests, namely preservation of natural conditions and extensive use by man. It is felt that helpful lines of approach towards solving this problem lie in the better education of the general visitor as to the interesting natural features of the Park, in encouraging the more responsible and nature-loving type of tourist, in maintaining reserved areas under natural conditions, in segregation of camping sites into small units with rehabilitation of the forest cover between, and in control of the car situation. Emphasis should be placed on the quality rather than on the number of visitors using the Park.⁴⁵

While few of these suggestions were implemented, biological investigations undertaken by Clarke in 1942 and 1943 partly attributed the "better" condition of Point Pelee to the "carefully worked-out" policies of the parks branch.⁴⁶

Commencing in 1949 and continuing throughout the 1950's, Point Pelee became the subject of several management studies carried out by the National Parks Branch and the Canadian Wildlife Service. Tener outlined the reasons for selecting Point Pelee.

The study was initiated as a first of a series of ecological surveys of the National Parks of Canada. Point Pelee was chosen because of its proximity to Ottawa, because of its unique faunal and floral composition, because of certain problems

confronting the administration there and because its small size permitted one man to develop methods and techniques to be used in later studies.⁴⁷

After examining the park, he commented on two conflicting land uses which occurred at Point Pelee.

. . . Point Pelee National Park was set aside as a National Park primarily because of its unique fauna and flora and not because of its suitability as a picnic and bathing ground for local inhabitants. The forces of conservation and recreation are diametrically opposed because of the small area involved and the large number of visitors to the park. The time has been reached where a decision must be made as to whether the purpose of the park shall be for recreation or for the preservation of the fauna and flora.⁴⁸

Four years later, other ideas were advanced by Young (1953). In addition to Tener's proposals, Young suggested the construction of additional picnic and bathing facilities, development of the East Beach north of the crossroad, retention of the marsh by the parks branch, and the initiation of marsh management studies designed to maintain its "natural state."⁴⁹

In 1955 two reports on the management of Point Pelee were completed, one by G.L. Scott, the other by D.A. Munro. Munro, stressed changes which had slowly occurred in management policies and their impact on the park landscape.

Administration of the Park has occasionally favoured . . . purely recreational use. Indeed, at one time management of the Park was so mis-directed that many valuable trees and shrubs were removed and public use was largely controlled. During this period portions of the Park deteriorated

excessively in natural quality. While the scars of the period remain, it is necessary to point out that during the past few years the trend has been reversed and there is now apparent within the Park a major improvement in the orientation and effect of management policies . . . it must be stressed that aesthetic-scientific use of Point Pelee National Park should have priority and is more truly in the national interest.⁵⁰

Munro also emphasized that park building standards should be improved and that a "natural history museum" should be constructed.⁵¹ While it is not known how quickly these proposals were acted upon, in 1957 Purdue observed that several suggestions presented by Munro were already "in effect."⁵² J.C. Jackson (1958) strongly urged that all private property be acquired. He also recommended that nature studies be encouraged and that land use zoning be introduced "to preserve the flora and fauna which are of unique national interest."⁵³

By the early 1960's, these and other earlier recommendations had not been fully adopted by the parks branch, although several alternatives to the management of Point Pelee had been contemplated by government officials. For example, in 1963 the Glassco Royal Commission on Government Organization recommended that Point Pelee, because of the problems of high visitor attendance and landscape impairment, be deleted from the national parks system. Shortly after this announcement, Ontario Premier John Robarts indicated that the province would gladly assume management of the park. Opposing this ownership change,

park supporters stressed the implications of the probable shift from some conservation emphasis under national management to a provincial emphasis on recreation. With this argument, they successfully retained federal management of the park.⁵⁴

In 1968 new planning approaches to park management were evident at Point Pelee. Muir commented " . . . that future use of the Park will have to be more in line with the original concept of a National Park as an area for the enjoyment of preserved natural values."⁵⁵ Proposals were subsequently advanced for the implementation of several land use strategies including the enlargement of the park by acquiring adjacent land, the development of long range plans, and the establishment of a long term programme to preserve and rehabilitate the park landscape.⁵⁶ Calling for the use of "extraordinary measures" to cope with park management problems, Muir recommended that land use planning be approached " . . . from the ecosystem point of view wherein the whole natural community of Point Pelee is the unit for consideration."⁵⁷ Muir strongly believed that park managers must:

Take hold of the natural physical and biological processes of the park and manage them, artificially if necessary, in such a manner that the known natural community can continue to function along traditional lines for all times.⁵⁸

As well as advocating the re-introduction of fire as a marsh management tool for "Parks purposes," it was sug-

gested that the entire park be treated " . . . as a managed ecosystem where natural values are maintained in a natural appealing environment by a combination of means including artificial methods."⁵⁹ It was also recommended that open spaces be established on the acquired agricultural lands to provide suitable habitat for birds. Finally, Muir proposed the development of a tree nursery, the control of hackberry, and the fertilization of the forest to promote growth and "vigor." These recommendations, however, were not implemented, although several changes did occur with respect to planning within the national parks system.

By 1971 the master planning concept had been refined and master plans were created for several national parks. In April, 1972, following a series of public hearings, the National and Historic Parks Branch approved the Point Pelee National Park Master Plan.

Interpretation

Developed to " . . . assist the public to know and appreciate the varied aspects of the natural scene,"⁶⁰ park interpretation resulted from the gradual realization that "an educated public would both enjoy and respect the park environment more fully."⁶¹

As early as 1939 government officials recommended that a "nature guide" be appointed at Point Pelee. However, it was not until 1960, one year after establishment of the Education and Interpretation Division within the

parks branch, that a seasonal summer naturalist was hired. Five years later, in 1965, a permanent park naturalist was assigned to Point Pelee.

Interpretive activities quickly developed within the park, although these included little reference to human impact on the peninsula. In 1962 the fence surrounding the nature preserve was removed and nature trails were established. Plants along the trails were labelled for visitor identification. In 1963 a wooden boardwalk was constructed in the Pelee marsh, allowing park visitors to venture into the marsh from the western bar in a 3/4 mile circuit. In 1966 a \$250,000 interpretive centre, the first within the national parks system, was erected on the southern portion of Lot 6. However, while providing a natural history museum, lecture hall, and space for park naturalists and interpretive exhibits, this building also destroyed a large area of the remaining red cedar glade within the park.⁶² With this facility serving as a functional node for visitor information, programmes and brochures were developed which incorporated interpretive and park policy. With the introduction of the transit system in 1971, brief nature-oriented talks were delivered to passengers during the short ten minute ride to the East Point Beach area.

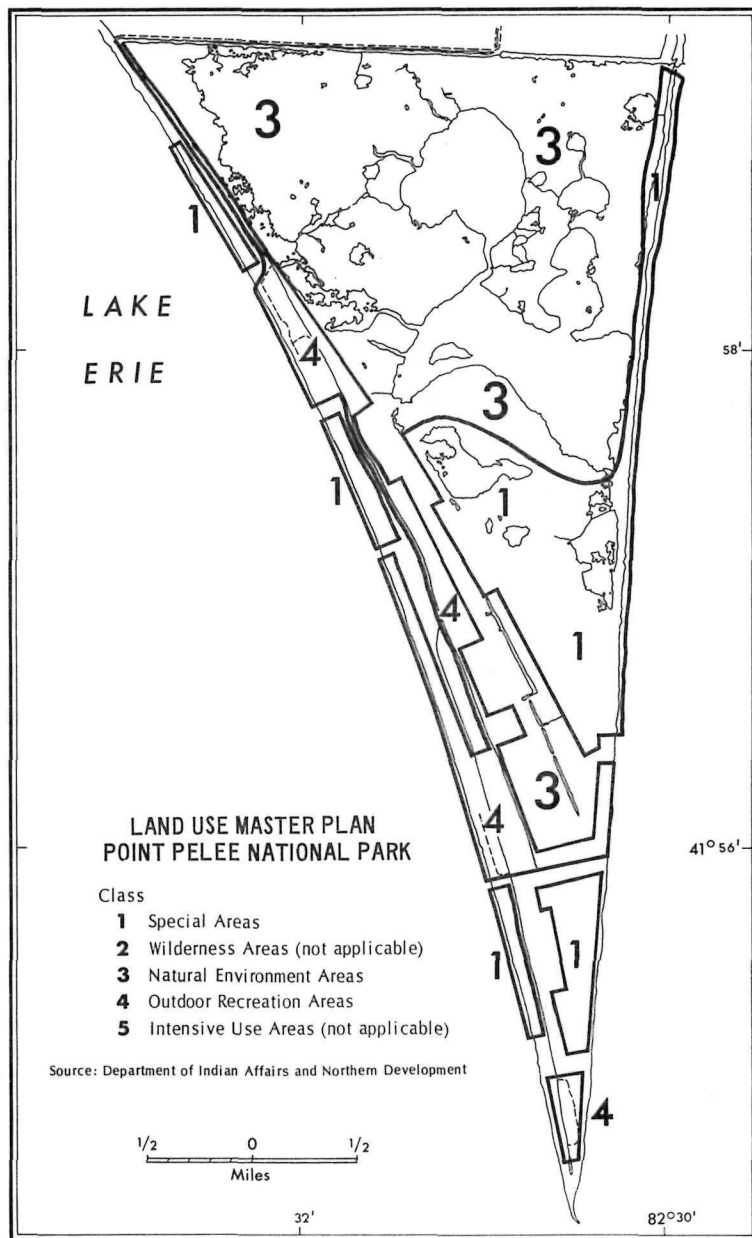
One important aspect of the expansion of interpretive facilities at Point Pelee was the acquisition of historical and biophysical data. Although early studies by Muir

provided the basis for a preliminary interpretive programme, it was not until the late 1960's that intensive research was undertaken on all aspects of the park landscape. In addition to the completion of several reports by permanent and seasonal naturalists and wardens, external consultants were encouraged to initiate studies within the park, often under contract to the National Parks Branch. These reports, in addition to providing essential data for the interpretive programme, also furnished valuable planning information, a portion of which was incorporated into the development of the Point Pelee master plan.⁶³ Two months after the April, 1972 approval of the Point Pelee master plan a Point Pelee National Park Interpretive Plan was adopted.

Planning For The Future

The Point Pelee National Park Master Plan and the Point Pelee National Park Interpretive Plan officially form the two main foundations for future land use, development, and interpretation at Point Pelee. However, the evaluation of resource data acquired during and subsequent to the approval of these plans has suggested possible land use zoning alternatives to those advocated by the master plan. For this and other reasons the Point Pelee master plan is again under review so that only some general evaluative remarks will be made about planning for the Point Pelee National Park of the future.

Figure 25



Designed " . . . to provide an adequate balance between preservation and use,"⁶⁴ the Point Pelee National Park master plan proposes that the peninsula be zoned into a five category land use classification system common to all national parks: (1) special (cultural and ecological) areas (2) wilderness recreation (3) natural environment (4) general outdoor recreation and (5) intensive use areas (Figures 25 & 26). Two land use classes, wilderness recreation areas and intensive use areas, are judged inapplicable to Pelee. Special areas, natural environment, and general outdoor recreation areas constitute the three major land use classes proposed within the park.

Figure 26: Point Pelee National Park Land Use Classification

Class Number	Class Name	Area (Acres)	Park (%)	Class Examples
1	Special Areas	872	23.5	Dunes, Marsh
2	Wilderness Areas	-	-	-
3	Natural Environment Areas	2487	67.0	Disturbed Land, marsh
4	Outdoor Recreation Areas	351	9.5	Beach, Picnic Sites
5	Intensive Use Areas	-	-	-
		3710	100.0	

Source: Department of Indian Affairs and Northern Development.

Two basic approaches to management are outlined in the master plan. These are the era and the evolutionary concepts. Zoned according to the land use plan, class 2 marsh and beach areas would be managed according to the era concept which requires that the landscape in question be maintained as it appeared at some given time in the past. Class 3 and 4 dryland areas would be managed according to the evolutionary concept which emphasizes "natural" progression and succession of plant communities. Class 1 areas would be given "total protection and preservation,"⁶⁶ although it is not entirely clear how this type of management would differ from lands managed according to the evolutionary concept. In park shoreline areas erosion control programmes would be continued using biological methods such as reforestation wherever possible.

One master plan recommendation calls for the operation of the public transit system throughout the park, eventually resulting in the complete removal of the automobile during the summer months. Unneeded roadways would be closed. At the same time improvements involving the construction of recreational facilities, food concessions, and lifeguard stations would be carried out on several beach areas. Access roadways would be paved, although the location of the roadways in the foredune areas may have unforeseen effects on erosion, dune formation and beach succession.

While a group campsite capable of accommodating some 90 persons would be retained in the former family campground, overnight camping would be eliminated as visitor activities become oriented towards day use of the park.

All private property is to be acquired and picnic sites consolidated into two major areas in the centre of the park. Reforestation and site improvement are to be undertaken in these two areas with "recreation walks" providing access to the West Beach. These changes, except for the complete introduction of the transit system, were to be completed by 1977.

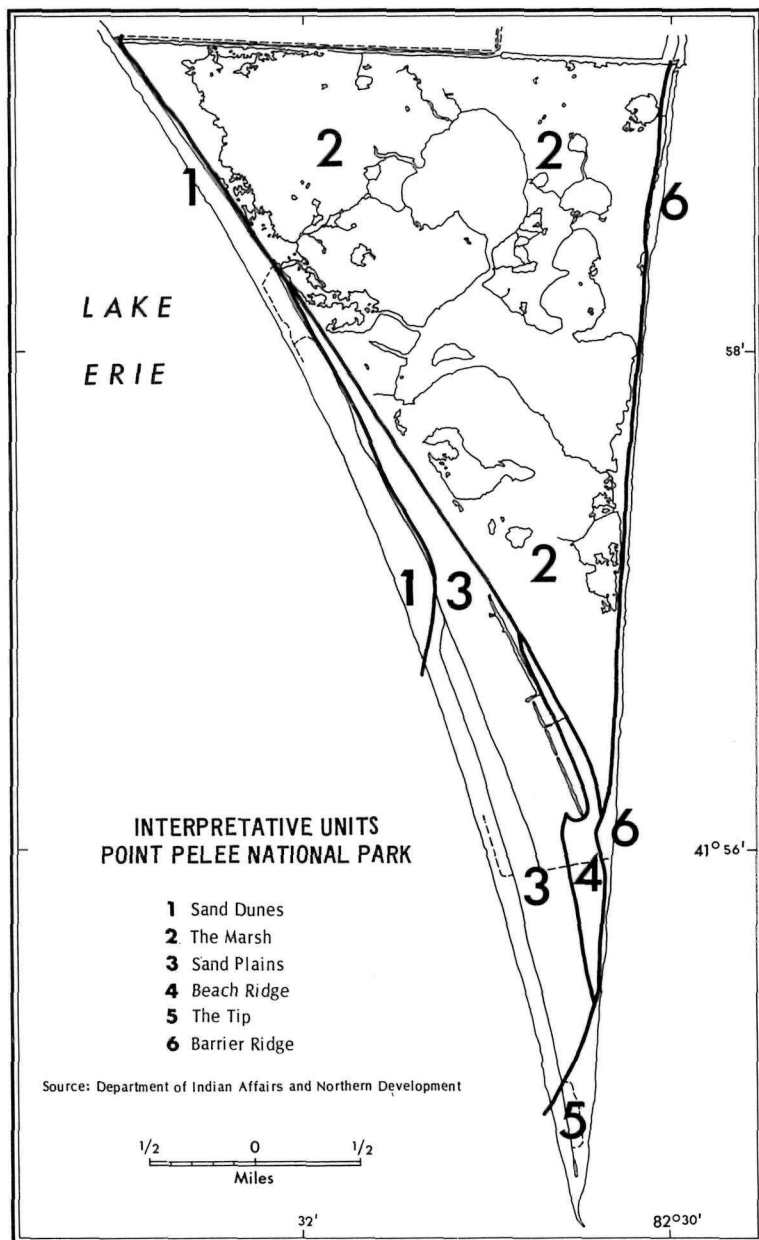
Closely associated with the implementation of the master plan, the Point Pelee National Park interpretive plan provides for the enhancement of "... public enjoyment of the Park by stimulating an appreciation of the Park environment."⁶⁷ Centred on the overall theme of "Canada South," the interpretive plan calls for the development of educational programmes to illustrate the southern character of Point Pelee. One aspect of this programme is to promote public understanding of the park as a landscape on which man has long exerted a dominant environmental influence.⁶⁸

The interpretive plan divides the park area into six interpretive units derived from landform units. Each of these interpretive units is concerned with a central theme or themes (Figure 27) The units are:

1. The Dunes

Theme:	Carolinian dunes
--------	------------------

Figure 27



2. The Marsh

Theme: Carolinian marsh

3. The Sand Plains

Theme: (a) Human history

(b) Rare and unique Carolinian species

4. The Beach Ridge

Theme: (a) Carolinian swamp forest

(b) Landform

5. The Tip

Theme: (a) Southermost Canadian mainland

(b) Point of fleeting wings

6. The Barrier Ridge

Theme: Critical flora and fauna habitat⁶⁹

According to the 1972 interpretive plan human use and impact on Point Pelee will be a dominant theme in the interpretive history of the park. The Sand Plains, Tip, and Marsh units will play major roles in its presentation. Centred on story guidelines of Indian history, settlement, fisheries, nautical and resort history, these interpretive units will outline past human activities within the park and their significance with respect to the Pelee landscape. However, little attention apparently will be devoted to human impact and landscape change under national parks management. Unless this emphasis is changed an opportunity will be missed to monitor the effects of changing parks policy and practice and give the citizen an opportunity to observe and think

about their effects on the national park landscape past, present and future.

The interpretive story is largely to be presented to the public through continued use of the public transit system. Future interpretive plans envisage construction of an interpretive/orientation centre at the staging terminal north of the park. This terminal will be built when the transit system operates throughout the entire park. Transit routes, from time to time, will be altered to accommodate and facilitate interpretive programmes. The interpretive plan also emphasizes the necessity of further research in the areas of history, ecology, and visitor use for both park management and interpretive purposes.

Although both the master plan and the interpretive plan were adopted in 1972 there is much disagreement about them both within Parks Canada and among citizens. This disagreement is a classical one from the standpoint of national parks in that it revolves around the degree to which the park will be used for conservation as opposed to recreation. Under the 1972 master plan many of the recreational and other activities which cause erosion, plant destruction and other undesirable effects would be controlled to a much greater degree than in the 1950's or 1960's. However some Parks Canada personnel and citizens still feel that too much attention has been paid to recreation as a use and that controls on its effects are inadequate to protect the fauna and flora of the park.

Commenting that the 1972 master plan was largely tied to visitor use rather than resource characteristics⁷⁰ Bull *et al.* (1973) formulated a resource-oriented land use plan for Point Pelee. This plan attempted to recognize "... the resource realities at Point Pelee so that adequate protection is assured and at the same time provide for visitor enjoyment of the natural environment."⁷¹

The park resources were divided into four broad categories of geomorphology, flora, fauna, and human history. Critical natural processes were identified, as well as rare and unique features and potential human impact. A composite map depicting the sensitivity of Point Pelee to visitor use was developed (Figure 28). A land use classification and planning scheme was also proposed which would guide recreation facilities and activities in accordance with biophysical characteristics and carrying capacities (Figure 29).

Bull *et al.* (1973) also suggested that the transit system be introduced throughout the entire park only after all private property in the park and sufficient land north of the park had been purchased. Finally, Bull *et al.* did not agree with the conceptual or theoretical basis of the 1972 master plan. They concluded that both the era concept and evolutionary concept presuppose "... an intimate knowledge by the park managers of the biological and physical processes, the floral-faunal-abiotic interrelationships, and how they vary over time, on a

Figure 28

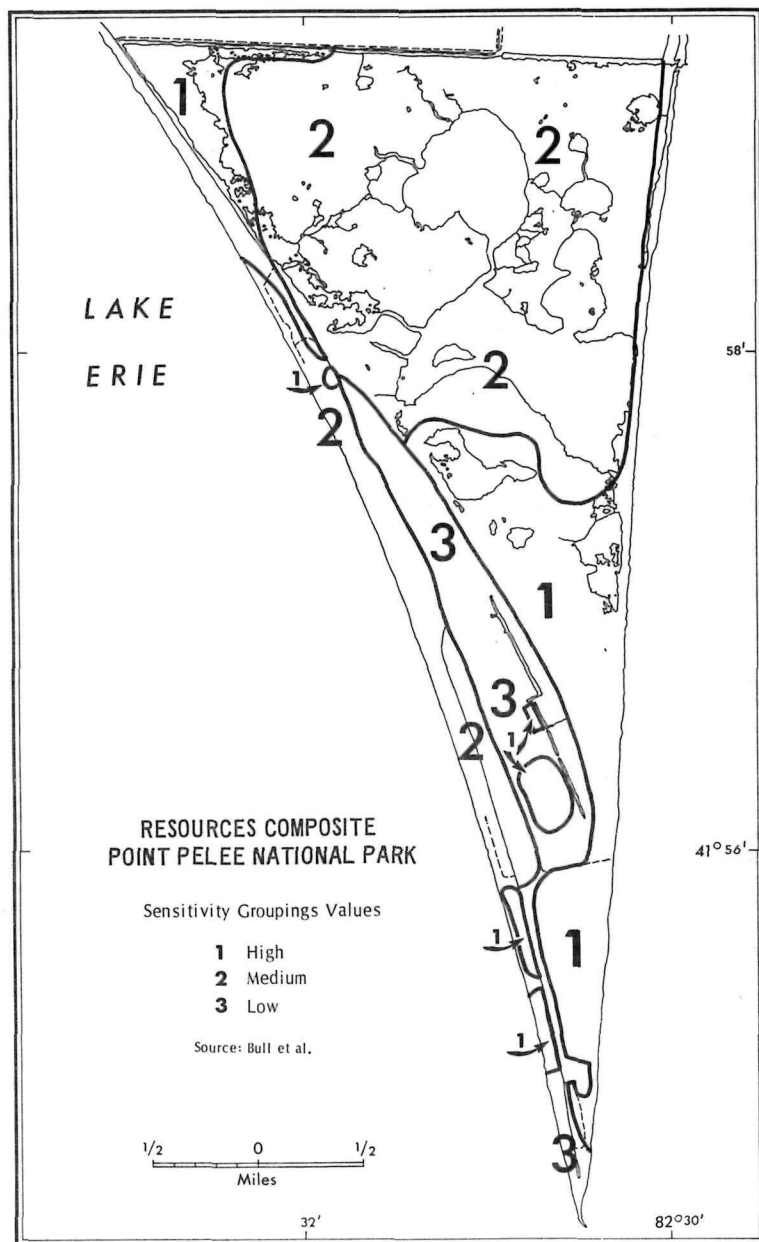
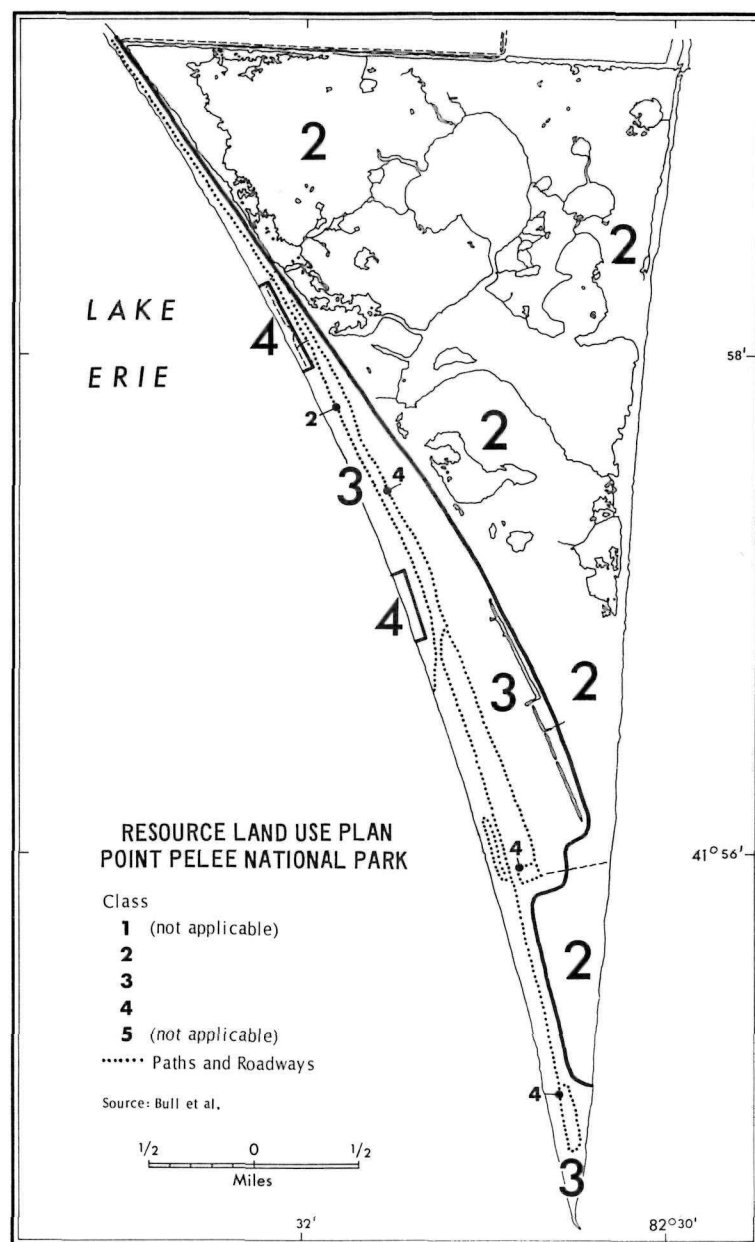


Figure 29



diurnal, seasonal, and more long term basis,"⁷². They preferred " . . . an essentially evolutionary management approach, with modifications."⁷³ These modifications would primarily involve the removal of " . . . adverse outside influences that are detrimental either to the integrity of the park or its biophysical processes"⁷⁴ as well as " . . . efforts . . . to maintain certain features that are . . . judged to be an important part of the park story."⁷⁵

Footnotes

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Chapter 11

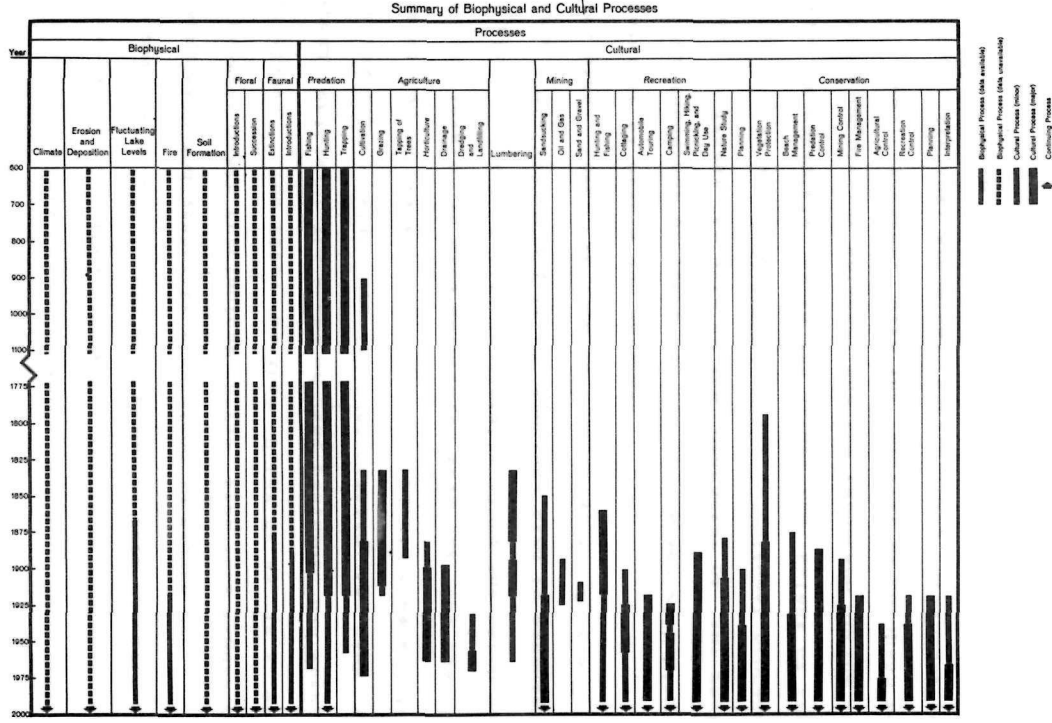
Point Pelee: Change and the Future

The Point Pelee National Park landscape is the product of the complex interaction of numerous biophysical and cultural processes, some of which are more important or better understood than others. The major processes and the periods in which they are known to have operated are graphically and generally summarized in Figure 30.

Certain basic conclusions emerge from this Figure and our study. The first is that Point Pelee is a very dynamic entity. The shape of the peninsula has changed continually - with erosion concentrated in high and deposition in low water periods. Periodic rise and fall of lake levels is also associated with the ebb and flow of plant and animal life especially along the marsh borders. The rise and fall of the lake also is associated with fire, which in turn influences marsh form and the character of plants and animals.

For thousands of years man has interacted with biophysical processes in shaping the character of the peninsula. When these human activities or cultural processes began is uncertain as is the nature and extent of their effects on plants, animals, and the landscape during earlier days. However, with the arrival of European man, hunting, fishing, trapping, agriculture, drainage, and other processes led to many introductions, extinctions, and modifications in the Point Pelee landscape. At what

Figure 30



point in time these processes and changes became so profound or extensive as to cause people to perceive the areas as unnatural or civilized rather than wild is difficult to say. To be able to reconstruct any late native or early European landscape accurately for any part of the park will be difficult because of lack of precise historic descriptions or appropriate scientific evidence. We do not understand well enough how biophysical and cultural processes interact today. And the same is true for long ago.

This does not mean that we do not have the knowledge to reconstruct certain more recent phases in the landscape history of Point Pelee in the manner suggested in various master planning and other proposals. We do have the descriptions and the photographs to reconstruct such things as, for example, a French Canadian fishing landscape on the eastern bar or an orchard landscape on the west side of the marsh. And many people would favour the careful development of such landscapes not only because of their romantic appeal but also because of what they can tell about how man's changing ideologies, plans, and technologies have affected and continue to affect the landscapes and ecosystems of Point Pelee. Many of these ideologies, plans, and technologies have had unanticipated effects which subsequently changed the system in unwanted ways. To know that varying degrees of conviction have caused these things to occur and that, in spite

of environmental impact assessments and other evaluations, they will continue to occur because of knowledge gaps and other uncertainties can teach us to employ caution, flexibility, and wisdom in future management of Point Pelee and other areas.

Furthermore, certain historic ideas, plans, and technologies are still very much with us. Indeed they are issues in the current review of the 1972 Master Plan. An example is the persistent effort that has been made to control erosion along certain parts of the shore through use of groynes, revetments, and other engineering devices as well as willow plantings and other techniques.

The review of the 1972 master plan is taking place because earlier schemes did not satisfy enough parks personnel nor citizens. This situation is understandable given that Point Pelee was one of the first national parks to be subjected to master planning in Canada in an attempt to meet the problems posed by post World War II recreational and other changes. Point Pelee planning appears to have been underway before the strong development of environmental, ecological or natural resource-oriented thinking in the late 1960's. The late introduction of such thinking into plans that had been developing along more traditional recreation and land use lines caused perturbations that are at least partly the cause of the present review.

In any event such reviews are valuable for it is very doubtful whether the master plan process can produce models that will last for a long time in the face of rapid environmental, social, technical, and other changes. What, for example, are the implications of the recent changes in oil and gas prices and energy availability on plans for parks such as Point Pelee? What, also, should be our thinking in the face of mounting evidence that efforts to control shore erosion in high energy coastal environments like that at Point Pelee often fail, as well as being destructive of natural beach and aesthetically unattractive? Such evidence has primarily become available in the last five years as a result of studies in the U.S., notably in national parks and related reserves on the Mid-Atlantic coast where the decision has subsequently been made to abandon erosion control schemes based on engineering approaches.

The critical planning issue now before parks personnel and the public is a longstanding one in all national parks, i.e. how to determine the balance between using and saving, or development and conservation. The problem is very apparent in Point Pelee because of its small size, its long use for an array of economic purposes, the sensitivity of its dunes and other features, and the large growing and rather affluent population in the surrounding area. To argue for management of any part of Pelee as "wilderness" or "nature", in the sense of it

being relatively undisturbed by human activities, is clearly very difficult, given the findings of this study. However the vegetation, animals, and landforms of Point Pelee national park make it an unusual and rare oasis amidst surrounding heavily used lands. Moreover its plants, animals and other features differ in many ways from those of nearby peninsulas such as Rondeau or Long Point. There is a case, therefore, for careful resource management on conservational, scientific and educational grounds. Indeed the latter use in particular will become more important in future. Education will become more significant not just in the formal sense, although more school, college, and university students will visit and learn from the area. Education will also become more important in the individual and informal sense - in the context of continuing education or leisure learning by people of all ages and backgrounds.

In our view considerable stress should be placed on resources and environment in planning and managing Point Pelee. Stress should also be placed on co-ordinated planning of the border zone from which fertilized waters and other influences enter the park area. Overall Point Pelee can only be effectively managed within a comprehensive human ecological framework. The motivating imagery should recognize the need to deal with the dynamic interaction among biophysical and cultural processes within and around the park. The park is and will remain part of

a more extensive ecosystem which will continue to be used by man in diverse and changing ways.

