

Natural Areas of Canadian Significance

A Preliminary Study



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Natural Areas of Canadian Significance

A Preliminary Study

Parks System Planning Division
National Parks Branch
Parks Canada

October, 1976

NATURAL AREAS OF CANADIAN SIGNIFICANCE

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by

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Parks Canada

October 15, 1976

At the 14th Federal-Provincial Parks Conference held in Yellowknife last year, I made the commitment that Parks Canada would table at this year's Conference a report on areas which we have studied to date and identified according to our criteria as having Canadian significance. This presentation, together with copies of the report, is intended to satisfy that commitment. My remarks will be brief, and they will be followed by a slide show giving you a closer look at some of the significant Canadian landscapes.

The program of identifying significant Canadian landscapes arises from the natural regions concept with which many of you are familiar and which underlies the planning for a nation-wide system of National Parks. The national parks system planning manual describes 48 natural regions each having characteristics different from the others.

Identifying important natural values in each region is a key step to planning for natural resource based parks and has in many cases been undertaken with the active participation of planning officers from provincial agencies. In reality this is an inventory process to help identify areas which should receive special attention by governments and the public

- to help set priorities in establishing a protected status for certain landscapes, and
- to help Canadians become more aware and appreciative of Canada's natural heritage values.

Out of this identification and inventory process Parks Canada expects to be able to identify in cooperation with Provinces and Territories those areas which could best be used to complete the National Parks System. I say "complete" because we have in mind a finite system made up of representation of each of the 48 natural regions by national parks plus designation of unique sites as national landmarks.

I should mention that the terms "representative" and "unique" are key words in defining the difference between national parks and national landmarks. Generally speaking, a national park is intended to encompass a majority of the representative characteristics of a natural region whereas national landmarks are intended to focus on special or unusual features - examples could be either meteoric craters or pingos which are ice mounds found in the Mackenzie River Delta area.

We now have national park representation in 22 of the 48 natural regions. When viewed in this perspective the system is almost half completed.

A total of 55 areas have been identified in the report not including existing National Parks. Each is listed by Province, showing its general location, with a brief description of its ecological, physiographic and cultural attributes, protective status, and the like. No boundaries are shown for the areas to ensure that they are not mistaken to be park

though some have proceeded to the proposal stage. proposals/ Moreover, no account has been taken at this stage of resource conflicts, accessibility, usability, regional planning and political considerations.

Furthermore, National Parks and Landmarks can only be created through full consultation with the respective provincial and territorial governments, local peoples, and detailed studies to assess their feasibility.

Once the basic National Park System is complete, additional areas will not be recommended for inclusion in it if adequate protection is provided by other means and sites are suitably presented for public appreciation. Hopefully, many can continue to be protected by or added to park or equivalent reserve systems of other agencies at the Federal, Provincial and Territorial level.

As the introductory map in the Report indicates, eight of the natural regions have no natural areas of Canadian significance identified in them. These regions will receive emphasis in our upcoming studies, and any areas which satisfy the criteria of national significance will be added to the report as it is updated. Conversely, any area currently listed will be deleted from the registry if its landscape becomes "degraded" by exploitive activities or if it is shown based upon additional information that the criteria are not satisfied. On the other hand, loss of naturalness

does not always mean an area cannot qualify. Some areas have been included where some of the natural values have been damaged but a high degree of restoration is possible.

In conclusion, I want to emphasize that the report you are receiving is a working document drawing together as concisely as possible results of our studies of Canadian landscapes. We are pleased to share this with you and look forward to your further cooperation in rounding out and refining the inventory. In the new year I will be contacting each jurisdiction represented at this conference for detailed discussions on the report and this approach to delimiting the future interests of Parks Canada. At the same time, the Conference may wish to ask the Park System Planning Committee to review the report and suggest any additions or changes it feels would be useful.

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Le rôle le plus important de Parcs Canada est de découvrir, d'établir, de protéger et de présenter en tant que parcs nationaux des aires naturelles qui sont significatives sur le plan canadien. L'expansion du réseau des parcs nationaux est régie par le concept des "régions naturelles" du Canada, tel que celui-ci est décrit dans le manuel de planification du réseau des parcs nationaux. Quarante huit régions - dont 39 terrestres et 9 marines - ont été signalées. Le but de Parcs Canada est d'assurer une représentation adéquate de chacune de ces régions à l'intérieur du réseau des parcs nationaux.

Afin d'atteindre ce but de façon systématique, la Division de la planification du réseau a entrepris, au cours des dix dernières années, plusieurs études, analyses régionales ainsi que des études thématiques d'histoire naturelle. Le résultat de ces recherches permettra aux Canadiens de mieux connaître ce qui s'est fait dans ce domaine, au cours de la dernière décennie. De même, cette étude se propose d'augmenter la sensibilité des Canadiens vis-à-vis la beauté et la diversité de leur pays et ayant suscité cette prise de conscience, de provoquer un intérêt accru pour la protection de notre patrimoine naturel. En résumé, donc, ce document précise pour chacune des régions naturelles étudiées à ce jour, toutes les aires connues qui satisfont aux critères suivants d'importance sur le plan canadien.

Représentativité Un des meilleurs échantillons des aires représentant les traits caractéristiques d'une région naturelle ou d'un thème d'histoire naturelle; ou

Unicité Une aire qui comprend des traits uniques, rares ou particuliers qui les distinguent d'une façon remarquable des autres parties de la région naturelle; et

Caractère naturel L'aire doit être presque intacte, ou si elle ne l'est pas, pouvoir être restaurée.

Il est vrai que les critères de sélection sont basés sur des facteurs reliés à l'environnement, et ne reflètent d'aucune façon les considérations sociales, économiques ou politiques. Ces aires n'ont pas été délimitées de façon précise afin de qu'elles ne puissent être confondues avec des propositions de parcs et de souligner qu'il s'agit bien d'un rapport préliminaire.

Le lecteur doit également noter que le processus de désignation des aires naturelles d'importance canadienne n'est pas encore terminé. En effet, au fur et à mesure que les études des aires intéressantes progresseront, il y aura de nouvelles inscriptions à notre répertoire annuel. La carte qui se trouve à la page suivante illustre bien où nous en sommes rendue avec les études dans les régions. Nous espérons accorder la protection assurée en vertu de la loi sur les parcs nationaux à plusieurs aires, afin de compléter le réseau des Parcs Nationaux. Ces aires seront choisies en consultation avec les gouvernements provinciaux et territoriaux respectifs, les populations locales et sera en fonction du résultat d'études de leurs possibilités en tant que parcs nationaux ou monuments nationaux. Il sera nécessaire d'en arriver à un accord avec les provinces avant d'établir ces aires en nouveaux parcs, parce que l'administration et le contrôle des ressources naturelles sont des responsabilités provinciales.

Nous avons bon espoir que les aires mentionnées, qui ne possèdent pas maintenant, ou qui ne posséderont jamais les caractéristiques nécessaires pour en faire des parcs ou des monuments nationaux, seront protégées par des agences de conservation fédérales, provinciales ou territoriales, si ce n'est déjà fait. Certaines aires peuvent être également protégées par des organisations

Introduction

privées, des groupes ou des individus. Indirectement, toutes devraient recevoir une protection grâce à une prise de conscience accrue de leur existence par les hommes politiques, par les planificateurs, par ceux qui ont à prendre des décisions dans le domaine public et privé et ainsi que par tous les canadiens.

Introduction

A prime role of Parks Canada is to identify, establish, protect and present as National Parks those natural areas which are of Canadian significance. The development of the National Parks System is guided by the concept of "natural regions" of Canada as described in the National Parks System Planning Manual. Forty-eight regions - 39 terrestrial and 9 marine - have been identified. Parks Canada's goal is to ensure that adequate representations of each of these regions are preserved within the National Parks System.

In order to achieve this goal in a systematic manner, the National Parks System Planning Division has undertaken numerous area studies, regional analyses and natural history theme studies over the past ten years. This planning report presents the results of the past decade's investigations in order to enable Canadians to benefit more fully from the results of this research, to increase Canadian awareness of the beauty and diversity of their country, and to promote the protection of Canada's natural heritage, both directly and indirectly, through a broadened awareness of its existence.

In brief, therefore, this document identifies, for each of the natural regions studied to date, all known areas which satisfy the following criteria of Canadian significance.

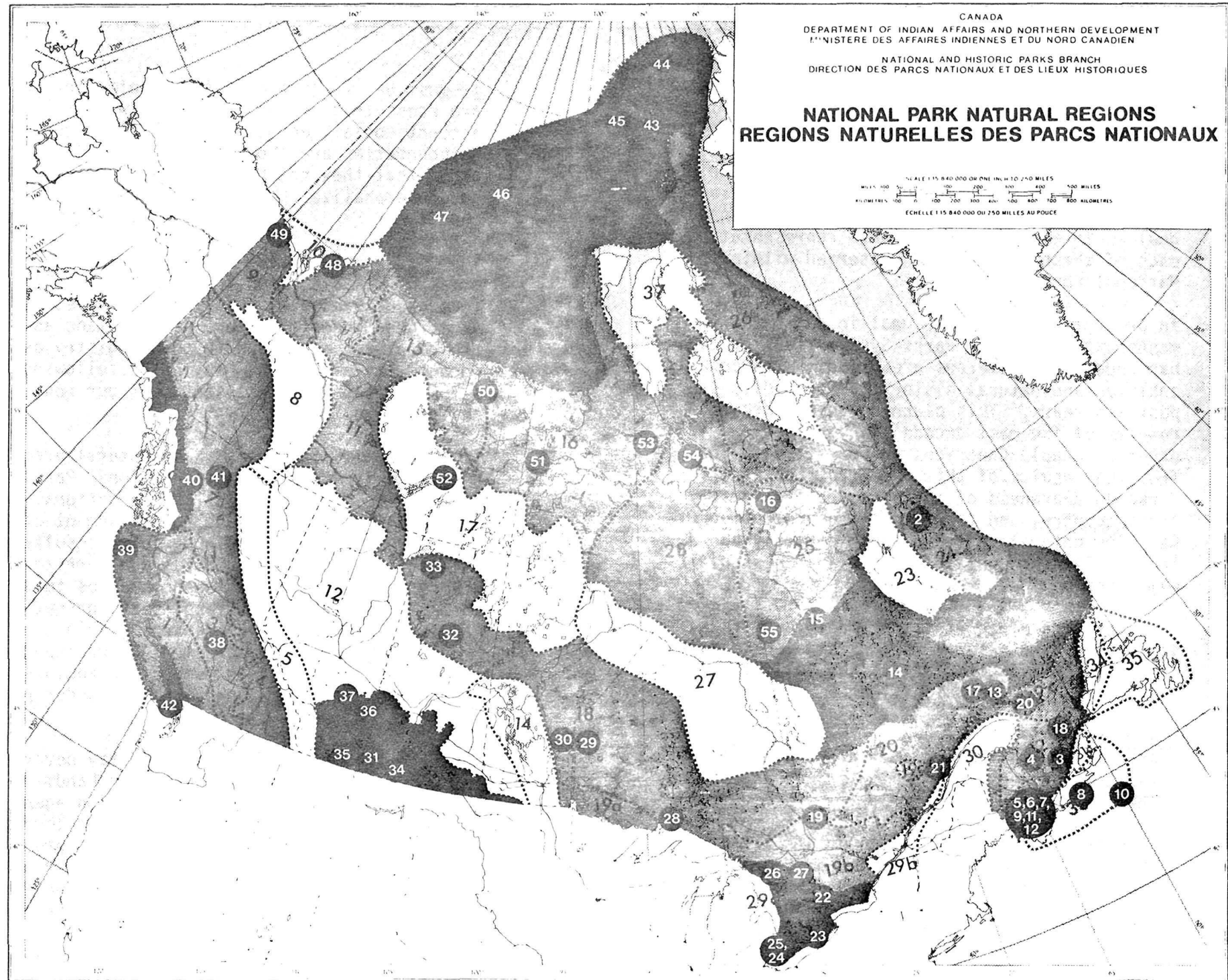
- Representativeness - one of the "best" sample areas representing the characteristic features of a natural region or natural history theme; or
- Uniqueness - an area that encompasses features that are unique, rare, or "one-of-a-kind" to distinguish them significantly from other parts of the natural region; and
- Naturalness - the area must be either in a relatively natural state or, if modified by man, capable of a high degree of restoration to natural conditions.


It must be recognized that the selection criteria are ecocentric and do not in any way take into account social, economic or political considerations. No boundaries are shown for the areas listed in order that they not be mistaken to be park proposals and to emphasize the preliminary nature of the report.


The reader should also note that not all natural areas of Canadian significance have been identified throughout Canada at this point in time. Additional identifications will be made as studies are completed and added to this registry as it is updated annually. The map on the following page illustrates the present status of our regional analysis studies.

It is hoped that some of these natural areas will receive protection under the National Parks Act in order to fill the voids in the National Parks System. The selection and establishment of these candidates will be based upon full consultation with the respective provincial and territorial governments, local peoples and studies to assess their feasibility as national parks or national landmarks. In the case of areas within Provinces, provincial agreement is necessary prior to new park establishment since the administration and control of natural resources is under provincial jurisdiction.

Areas listed which are not now or may never prove to be feasible as National Parks or Landmarks will hopefully be protected by conservation agencies at the Federal, Provincial or Territorial level, if not done so already. Some may also be protected by private organizations, groups or individuals. Indirectly, all should receive protection through increased awareness of their existence by politicians, land use planners, decision makers in the public and private sectors and all Canadians.



Not studied to date  Aucune étude commencée

Studies initiated/ongoing  Etudes en cours

Studies near completion  Etudes presque terminées

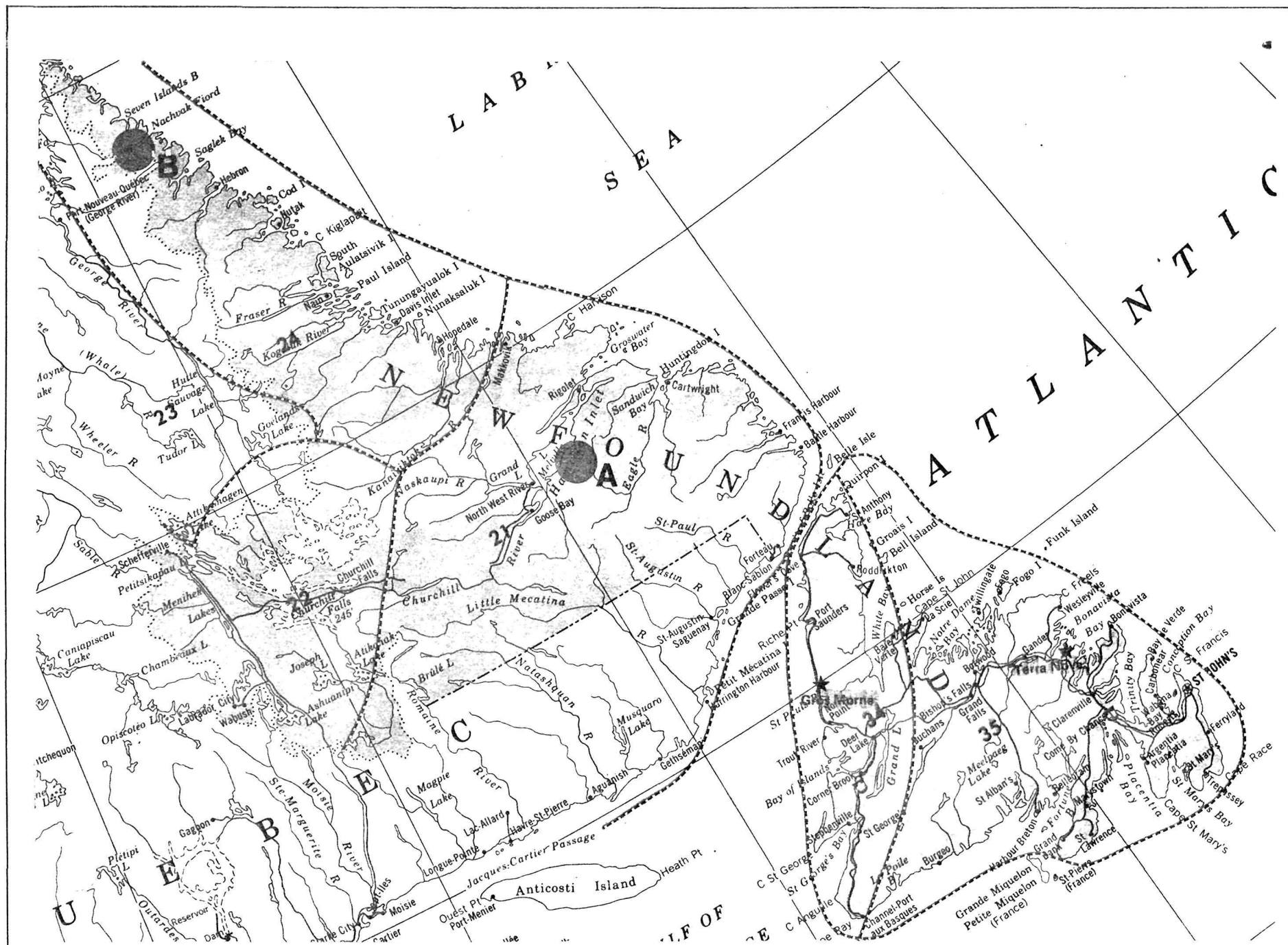
Studies completed  Etudes complétées

Natural Areas of Canadian Significance  Aires naturelles d'intérêt canadien

1. Mealy Mountains
2. Torngat Mountains
3. East Point
4. Cascumpec Island
5. Brier Island
6. Cape Split
7. Cape La Have Islands
8. Ship Harbour
9. Joggins Fossils Beds
10. Sable Island
11. Deer Island Archipelago
12. Grand Manan Archipelago
13. Les Iles de Mingan
14. Région des monts Otish
et du Lac Naococane
15. Golfe de Richmond
16. Cap Wolstenholme et
les Iles Digges
17. Rivière Manitou
18. Les Iles de la Madeleine

19. Kipawa
20. Ile Anticosti
21. Fjord du Saguenay
22. Niagara Escarpment
23. Long Point
24. Pelee Island
25. Lake St. Clair Marshes
26. Manitoulin Island
27. French River Mouth, Georgian Bay
28. Black Bay Peninsula
29. Atikaki
30. Bloodvein River area
31. Cypress Hills
32. Churchill River
33. Athabasca Sand Dunes
34. Grasslands
35. Milk River
36. Suffield

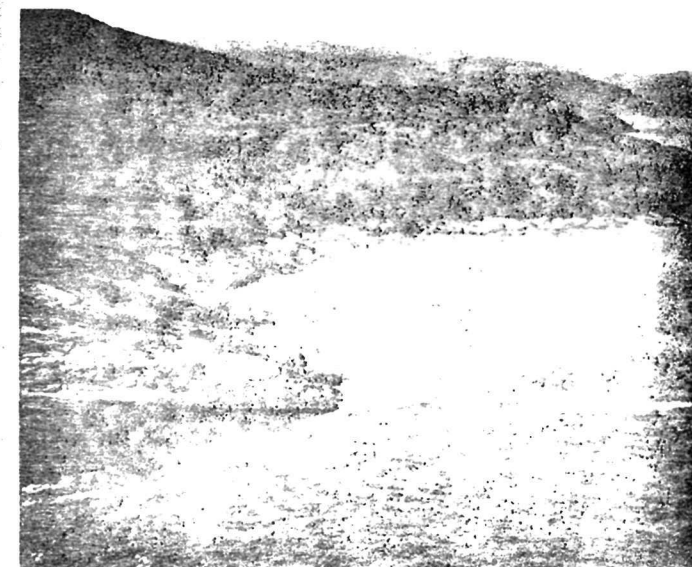
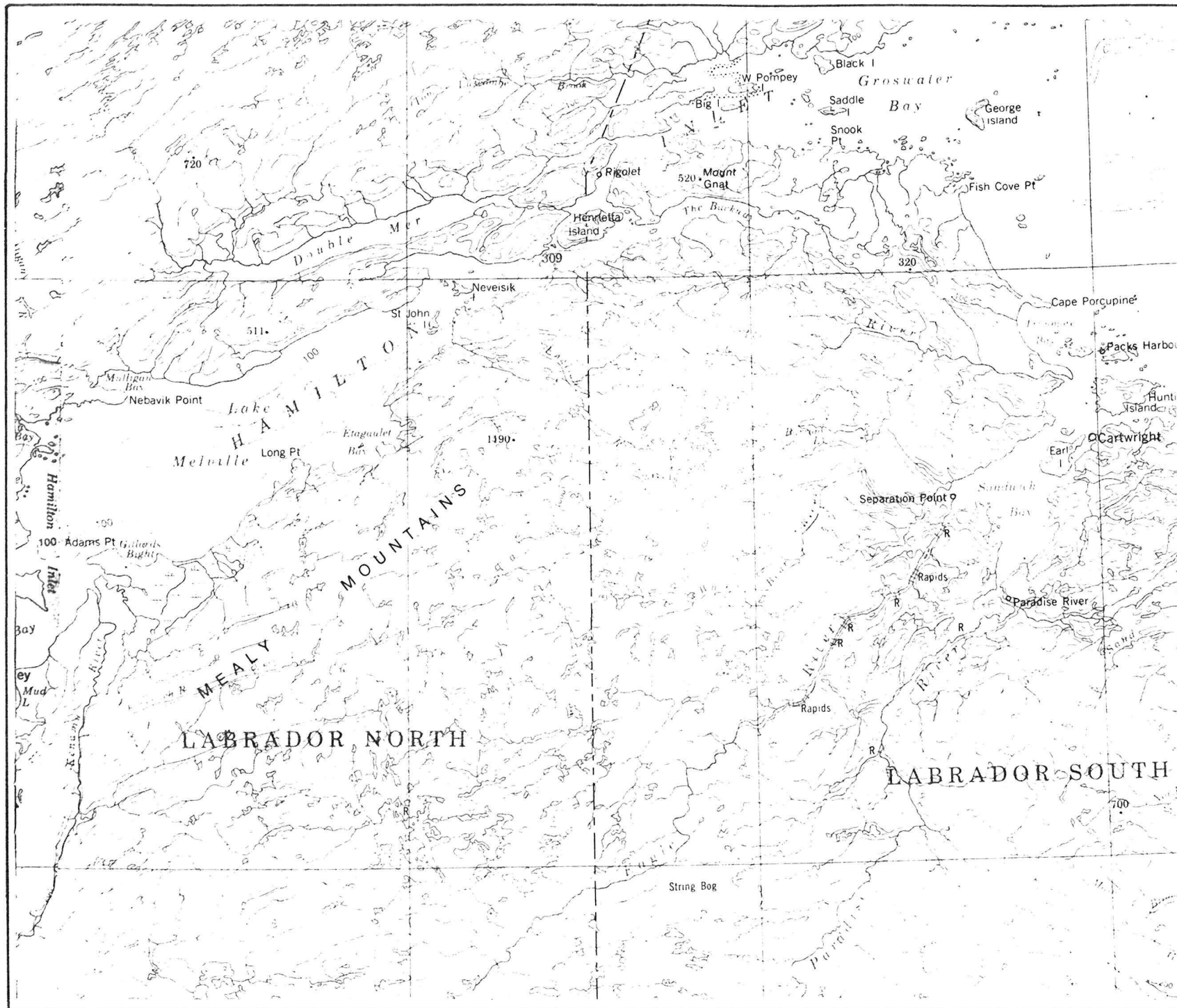
37. Red Deer River Badlands
38. Fraser - Chilcotin Junction
39. Queen Charlotte Islands
40. Edziza/Coast Mountains Area
41. Spatsizi Plateau Area
42. Race Rocks
43. Fosheim Peninsula
44. Northwest Ellesmere Island
45. Axel Heiberg Island
46. Western Melville Island
47. Northwest Banks Island
48. Pingo of Tuktoyaktuk
49. Firth River - British Mountains -
Herschel Island
50. Bathurst Inlet
51. Thelon Game Sanctuary
52. East Arm Great Slave Lake
53. Wager Bay
54. Northern Southampton Island
55. Belcher Islands



Newfoundland

A – MEALY MOUNTAINS

B – TORNGAT MOUNTAINS



MEALY MOUNTAINS A

The 3000 square mile Mealy Mountains area contains excellent examples of the four physiographic components that represent this Region's natural character. From the marine environment along the southern shore of Lake Melville, the area rises gradually through a coastal plain, then abruptly to an extensive rugged plateau interlaced with numerous ponds and narrow, elongated lakes. These three components finally culminate in an impressive backdrop of 3600 foot peaks along the eastern boundary.

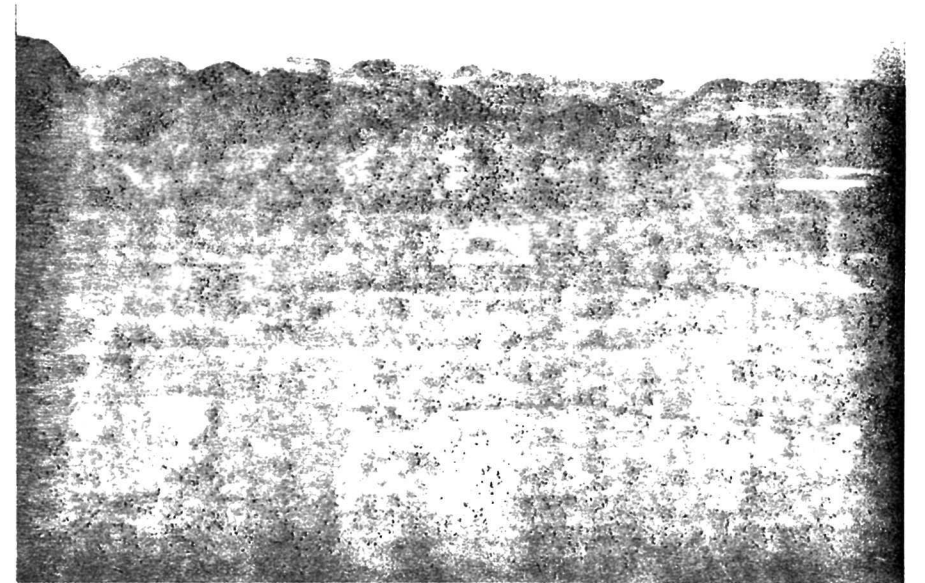
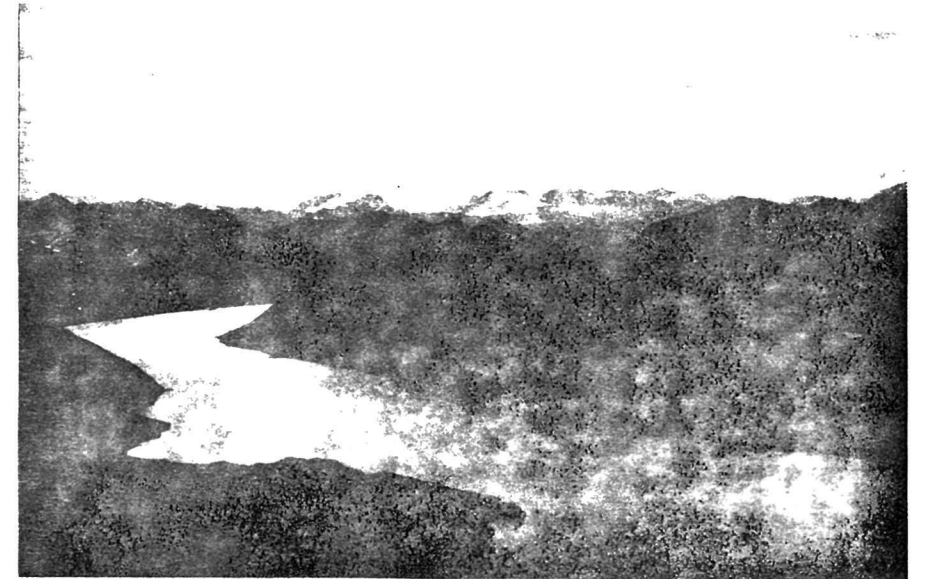
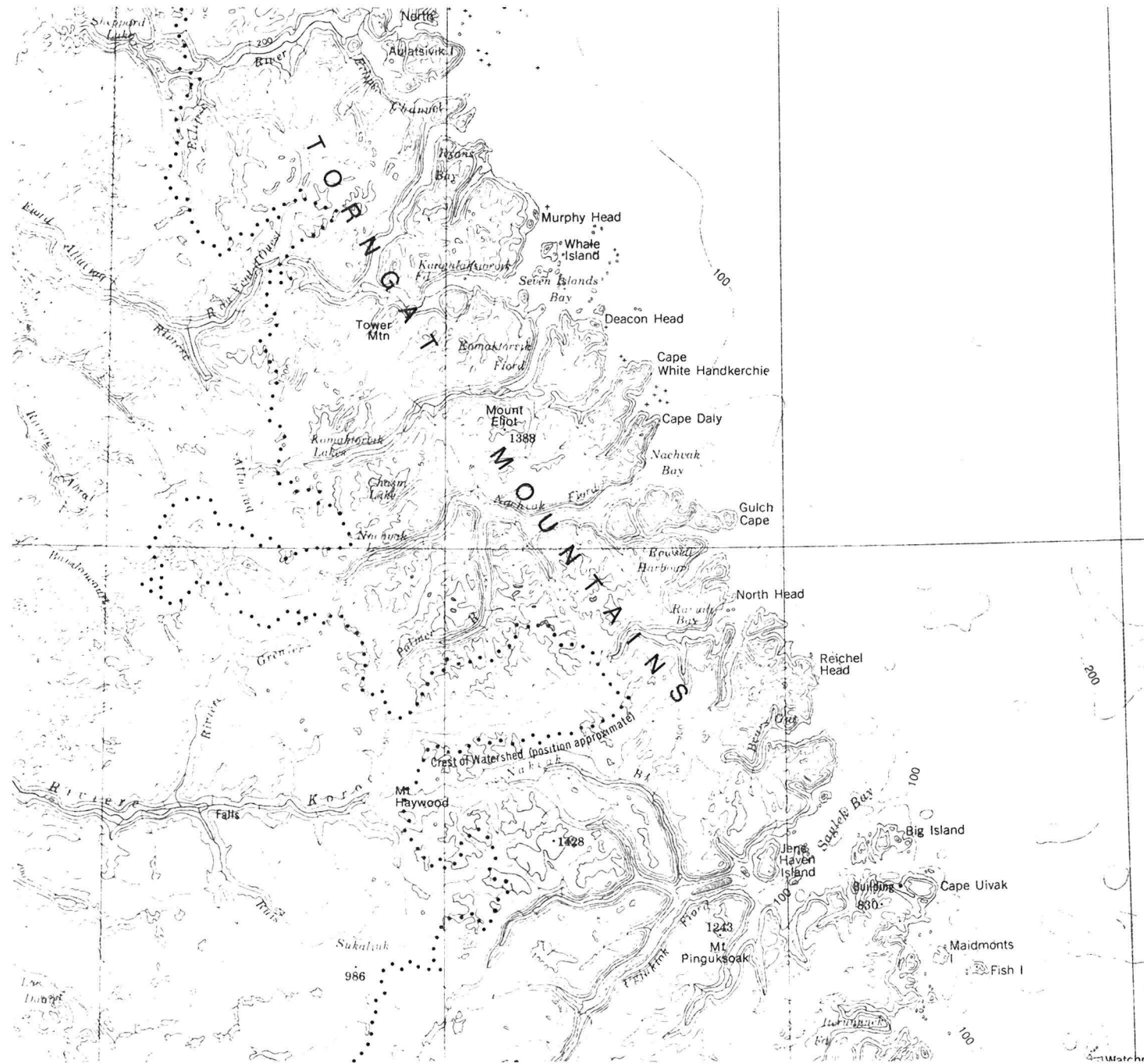
The coastal plain, plateau and adjacent mountain systems possess surficial features such as spectacular waterfalls and rivers, elongated trough lakes, cirques and tarns which are vivid legacies of past glaciation. Throughout the area two diverse plant communities have developed: one representing the tundra ecosystem, the other the boreal forest. As a result, there is a variety of fauna including a resident population of caribou, moose, bear, beaver, fox, otter, mink and many species of seasonal birds. The marine environment also provides a favorable habitat for many waterbirds.

The area is still in its unaltered natural state.

Due to overhunting of caribou in the area, the Province has closed the hunting season since 1974.

Road access is not available at present. This will change when the proposed Quebec-Trans Labrador Highway is constructed.

The Royal Commission on Labrador (1974) proposed the Mealy Mountains as a new national park.



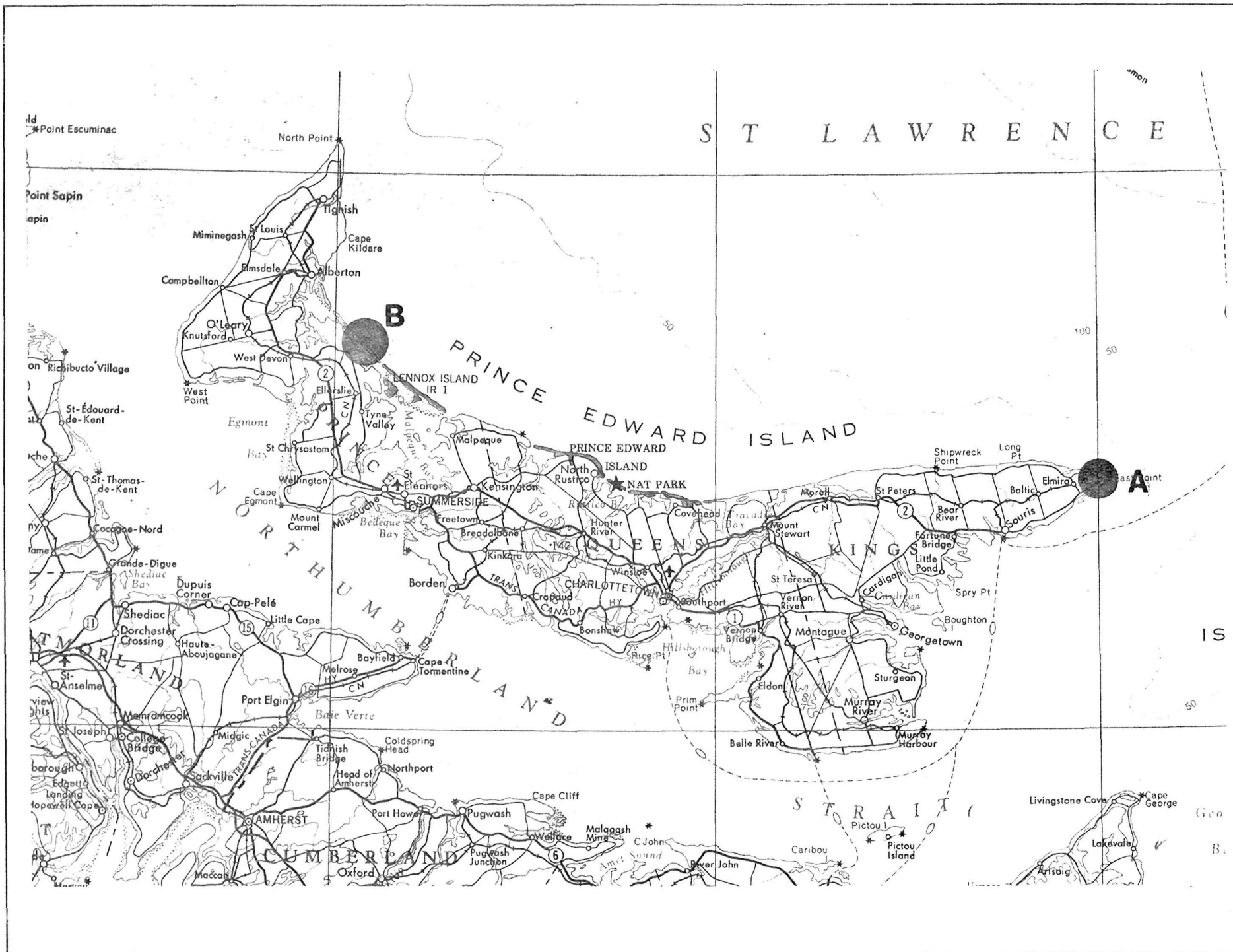
TORNGAT MOUNTAINS B

The Torngat Mountains form the highest and most rugged peaks of eastern mainland Canada. Elevations over 5000 feet are common and recent glaciation has left deeply incised valleys and a rugged fjord coastline. In addition, the area contains excellent representations of coastal plains, plateaus, lakes, islands, braided river systems, and glacial and periglacial landforms (e.g. cirques, horns, hanging valleys, faults).

This area lies north of the treeline within the Arctic tundra ecosystem and displays a high diversity of plants and animals. The valleys support migrating herds of caribou, bears, foxes and other mammals, while whales, seals and other marine mammals are frequently seen offshore. Many species of birds (Canada Goose, Harlequin Duck, Common Eider, Rough-legged hawk, Gryfalcon, Arctic tern) nest in the area during the summer months.

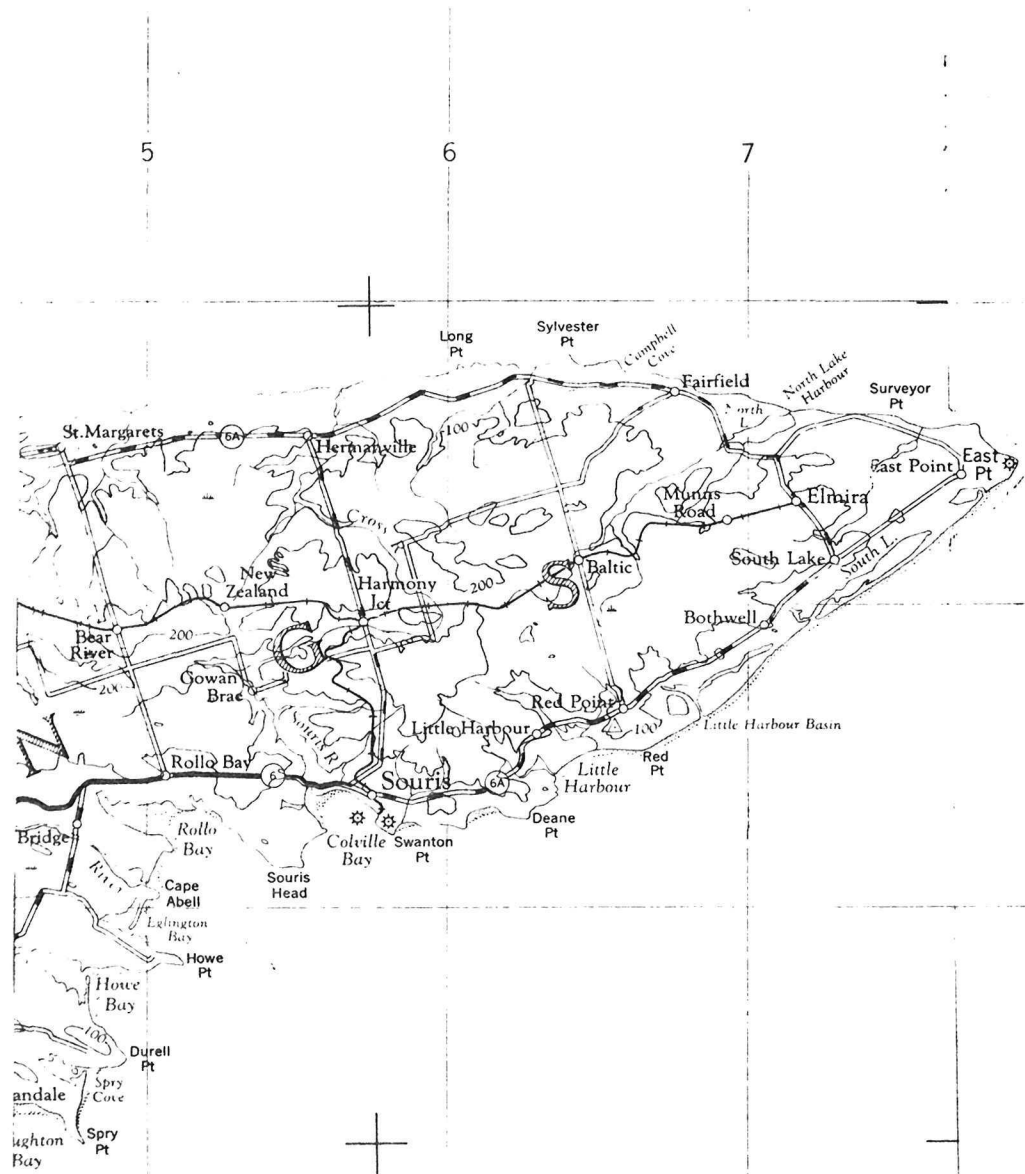
Climatic conditions are severe. Constant winds sweep the area, frequently reaching gale forces. Cool temperatures (15°C) are prevalent during the short growing season.

The area offers an excellent representation of the natural values to be found in the Northern Labrador Mountains Region.

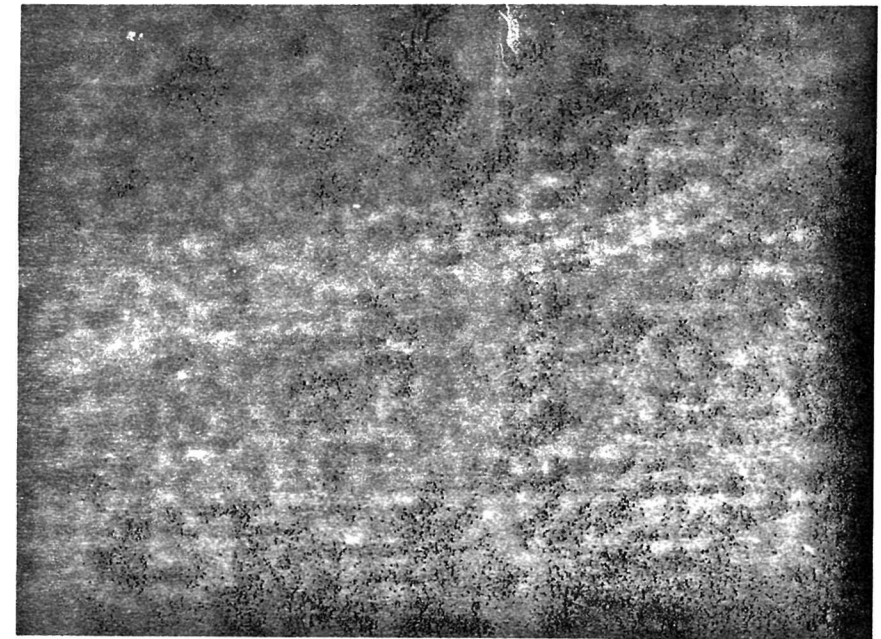


Prince Edward Island

- A EAST POINT
- B CASCUMPEC IS.



Bruce Pt
Boughton
N O R T H U M B E R L A N D



EAST POINT **A**

East Point is one of the finest examples of seascape and cultural landscape in Canada. Although summers are cool, saltwater temperatures reach 70°F in summers and are conducive to extensive water oriented activities.

Broad beaches of white and red sands, exposed rocky sandstone headlands, pronounced development of offshore and baymouth bars enclosing very large bays and lagoons, wetland ecosystems and migrating sand dunes are vivid legacies of past and present coastal erosional and depositional processes. From the marine environment, the area rises through a series of crescent beaches and migrating sand dunes covered with interesting and distinctive plant communities to a broad flat upland characterized by cultivated lands, pastures and extensive mixed woodlots.

Ice scouring contributes significantly to rapid erosion of cliff faces and to low density of sessile inter-tidal fauna and flora throughout the area. The Magdalen Pocket, a subprovince of the Boreal Faunal Province, presents a number of species like the Mercenaria Quahog and the Eastern Oyster, normally associated with the Virginian subprovince to the south of Cape Cod. The oceanographic character of the area ranges from shallow fresh water estuaries, deep, calm channels to dangerous offshore tide rips, surface and longshore currents.

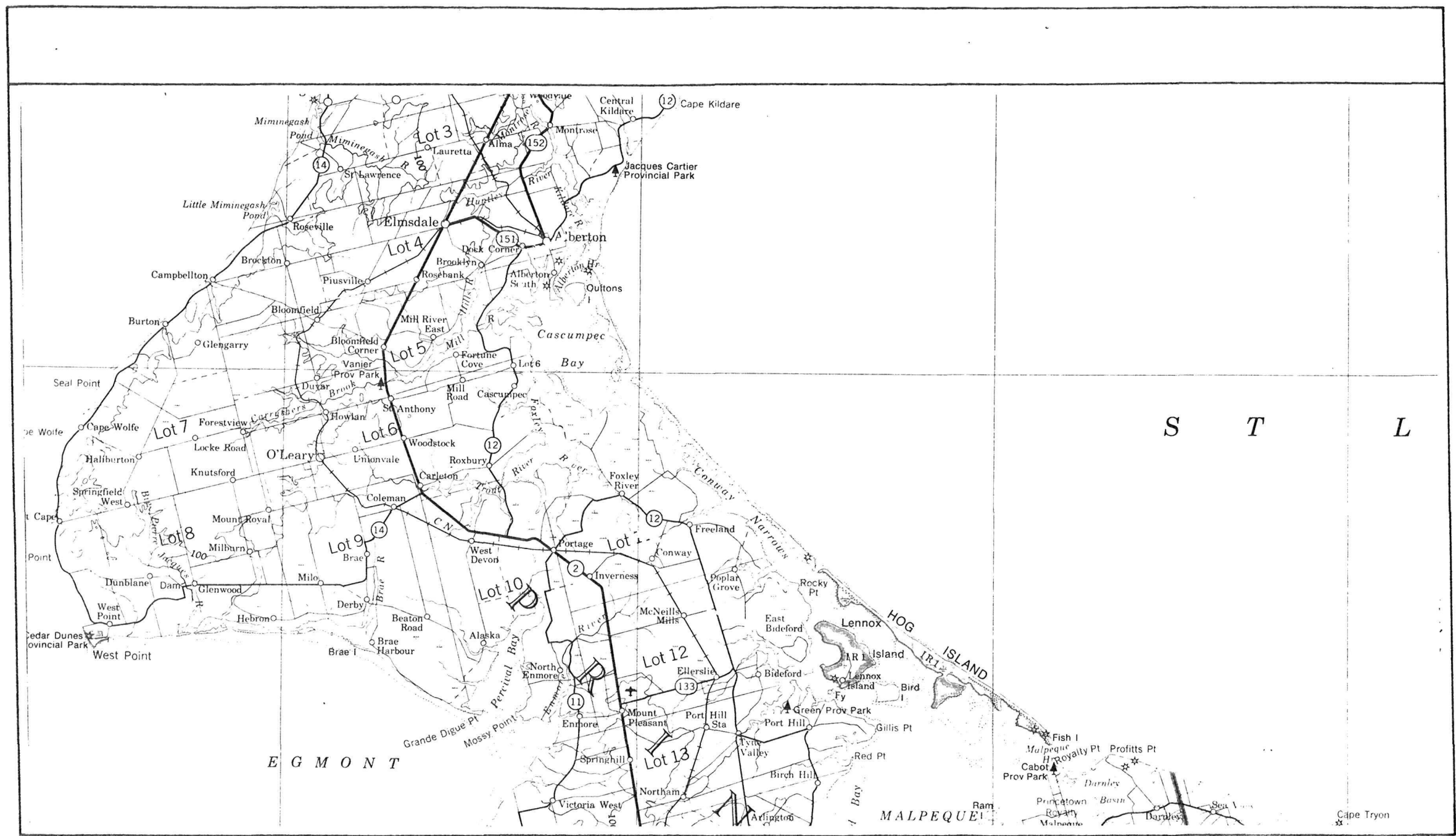
The offshore bars and spits attract a diverse group of migrant shorebirds. Critical nesting sites for Red-breasted Mergansers, Terns, Great Black-Backed Gulls and numerous species of waterfowl are located along the shoreland area. Significant populations of Harbour Seals and smaller whales (Common Dolphin) are known to frequent the area.

Historical settlement and shipwrecks are important aspects of the region.

The high quality shoreline and beaches provide fine opportunities for recreation as well as sites for campgrounds and interpretive facilities.

Many representative and unique examples of coastal processes and forms exist which should be preserved. These include beach ridges, and dune and wetland ecosystems.

Unique plant communities and associated wildlife offer outstanding educational and interpretive opportunities.



CASCUMPEC ISLANDS **B**

The Cascumpec area consisting of some 21 miles of barrier islands, barrier beaches and associated features such as: sandbars, spits, dunes and tideflats, presents one of the most outstanding seascapes in the Maritimes, which vividly displays the dynamics of coastal zone processes and sediment transport systems of the littoral, nearshore, and offshore zones. Migrating dunes and associated marshes and salt ponds support fragile plant and animal communities of outstanding interpretive and educational value. While the high quality shoreline and beaches provide fine opportunities for low key recreational activities, the unique ecology of the islands offers outstanding potential for scientific study of coastal ecosystems.

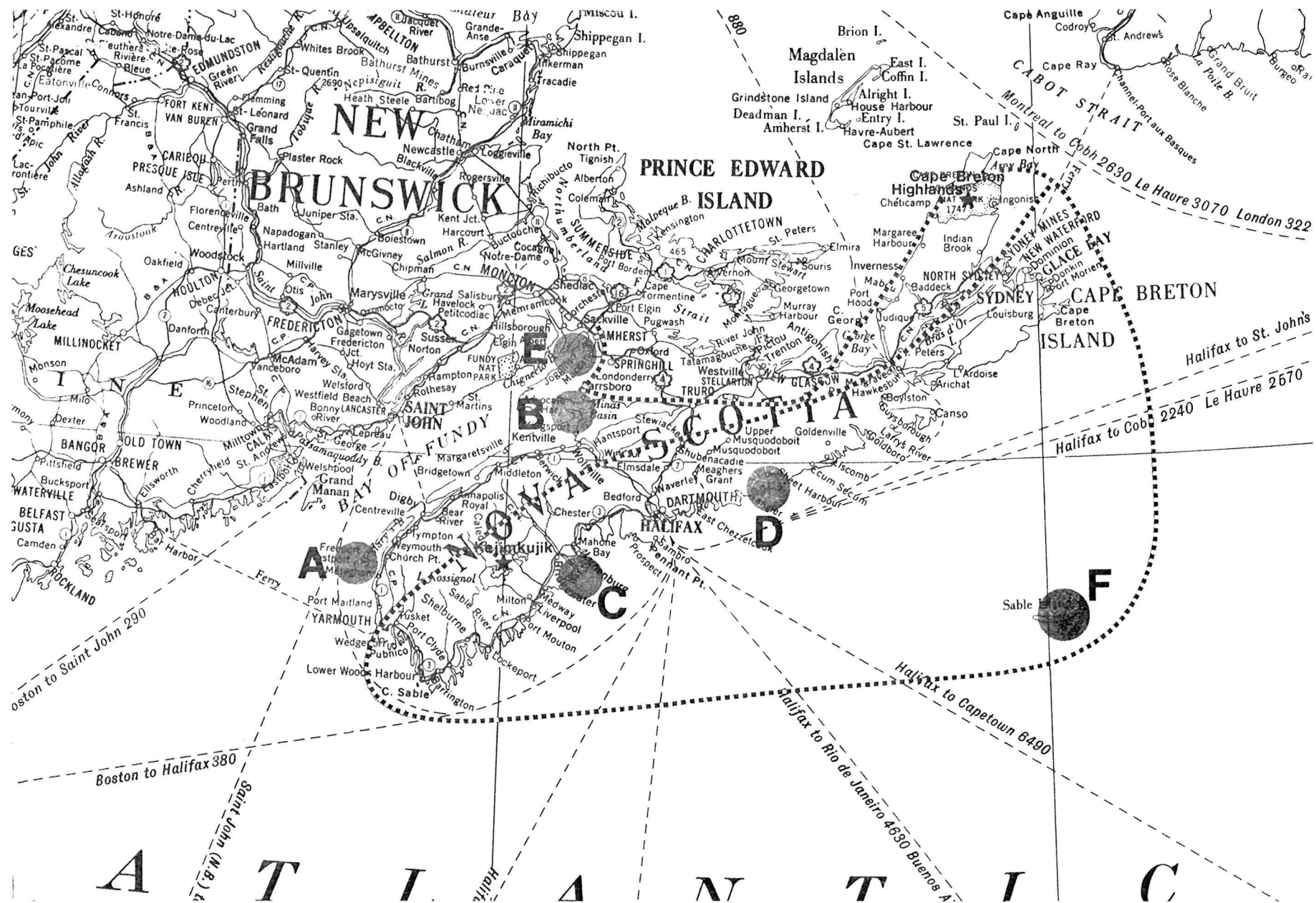
The Cascumpec Islands are located in the Magdalen Pocket, a subprovince of the Acadian Faunal Province which extends throughout the Maritimes. This warm water pocket supports a number of species that thrive normally in the Virginian subprovince to the south of Cape Cod.

Offshore bars, sandspits, tidal ponds, marshes and tidal flats, attract a diverse group of migrant shorebirds, waterfowl, gulls and songbirds. The islands and sand ponds are important nesting and feeding areas for great blue herons, great black-backed gulls, common terns, and black ducks. The area is regionally significant as a stop-over and feeding area for a variety of shorebirds of the Atlantic Flyway. Seasonal populations of harp seals and whales (common harbour porpoise and pilot whales) frequent offshore marine areas.

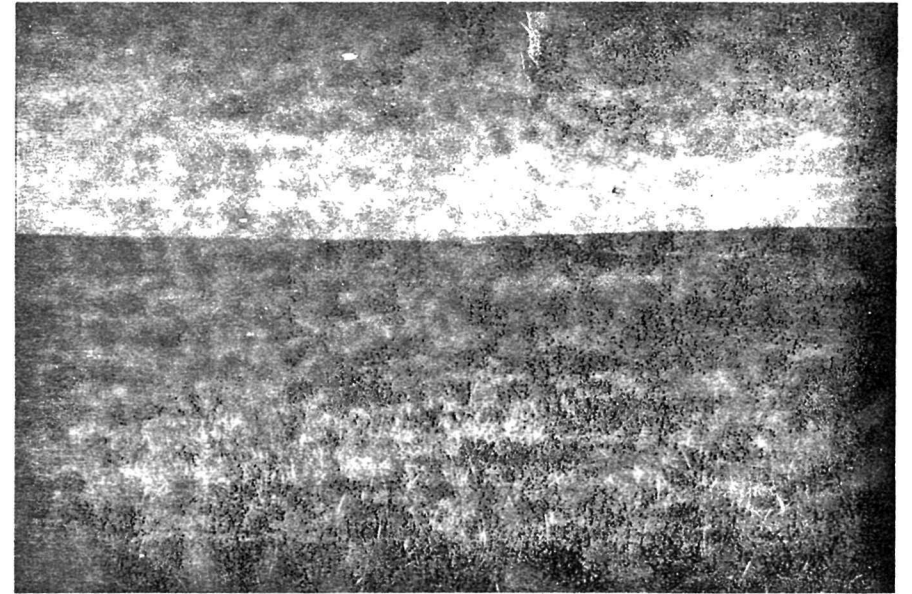
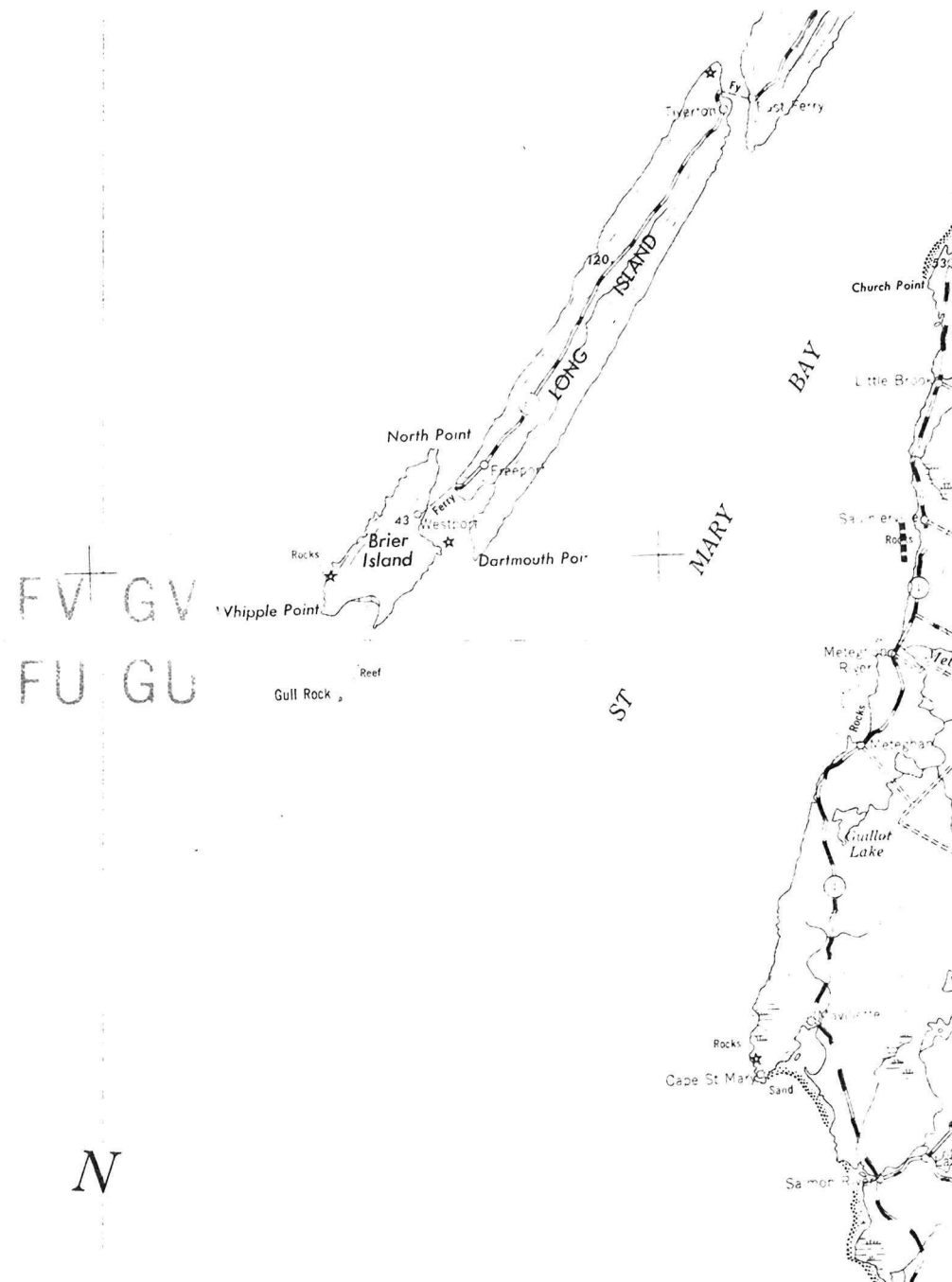
Ospreys are known to nest on inshore island systems.

Historic settlement, water routes, and shipwrecks are important aspects of the area. Recreation activities could be integrated with adjacent shoreland recreation facilities.

Nova Scotia



- A - Brier Island
- B - Cape Split
- C - Cape La Have Islands
- D - Ship Harbour
- E - Joggins Fossil Beds
- F - Sable Island



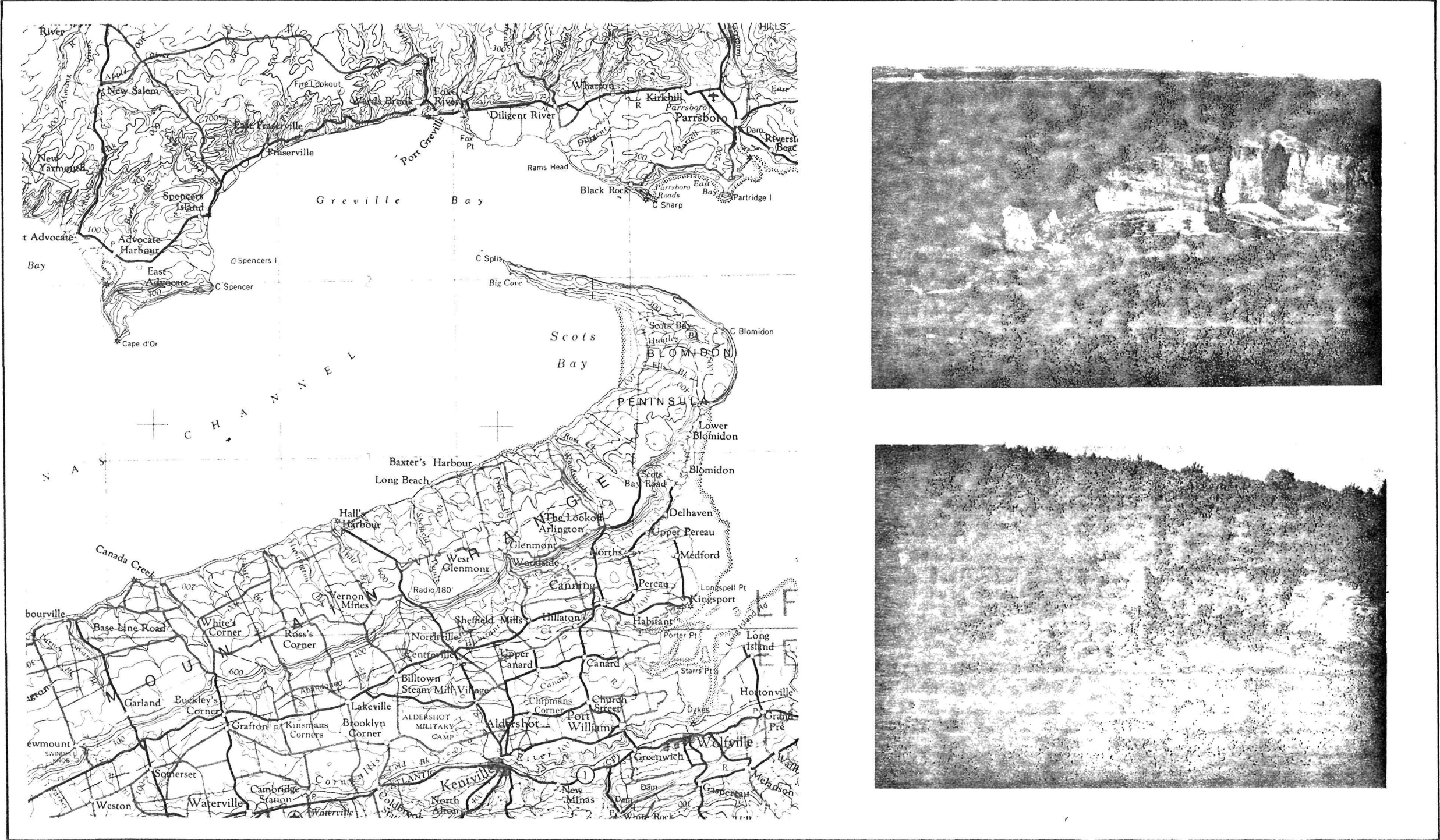
The Island and adjacent marine component is one of the richest biological areas in the Bay of Fundy Marine Region. The Island has a moderate marine climate with extensive summer fogs, the highest mean January temperature and mildest extreme low temperature of anywhere in the Maritimes.

Highly saline marine waters support an abundance of zooplankton animals and fish. This critical feeding area supports migrant pelagic seabirds, exceptional in numbers of individuals and richness of species. A significant number and diversity of Pinnipeds and Cetaceans feed and winter in these marine waters. The subtidal and intertidal marine flora and fauna is unusually rich and contains southern (Virginian) species which are rare or absent elsewhere in the Maritimes.

Steep, spectacular cliffs and surf swept rocks of massive eroded columnar triassic basalts characterize the coast. Extensive and relatively undisturbed shoreland bogs support floral and fauna species which are rare and unique. The area is outstanding for observation of birds of the Atlantic flyway. The Island attracts the most diverse group of migrant land and shorebirds and rare bird species of any area in the Bay of Fundy Marine Region. Shoreland ponds attract a great diversity of migrant and over-wintering waterfowl.

The fragile shoreland habitats encourage passive recreation pursuits only.

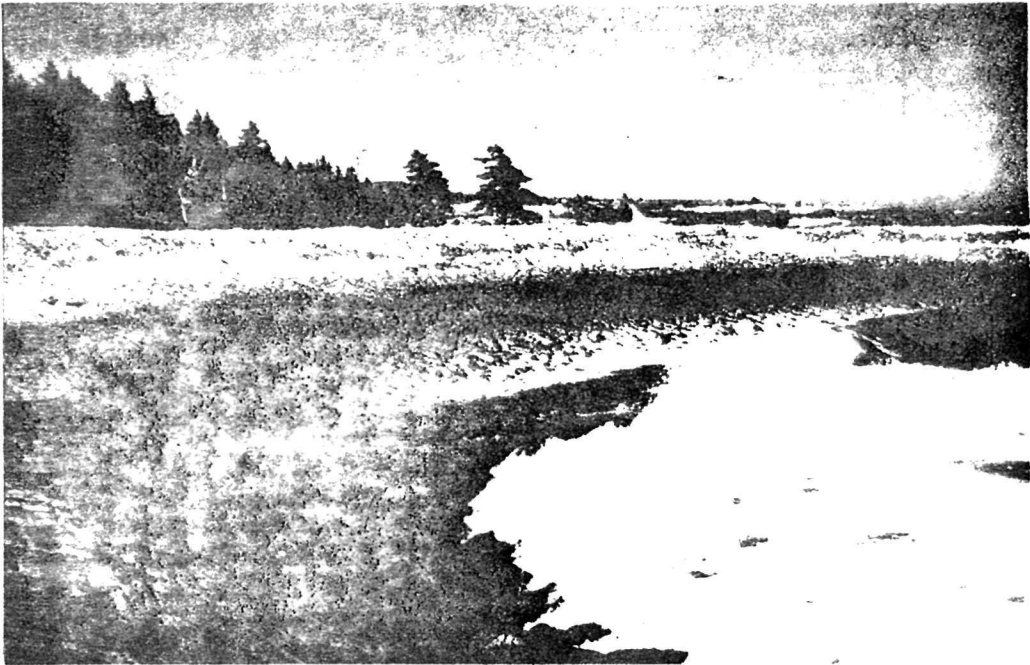
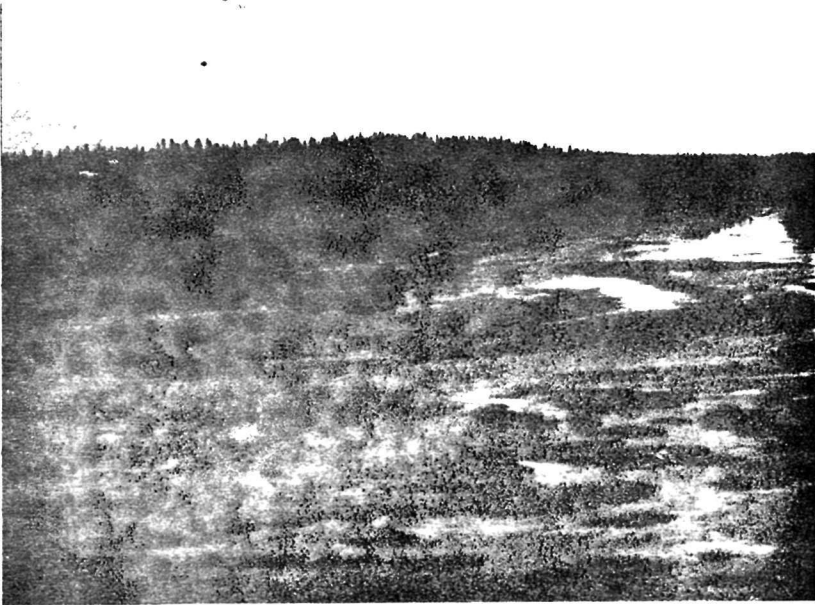
The Island and adjacent marine component are of outstanding biological value.



The Cape Split/Blomidon Peninsula is a singularly unique geologic and geographic formation found where the Bay of Fundy meets the Minas Basin. The peninsula is a hooked extension of the North Mountain of Nova Scotia. The erosional effects of the waves, tides and weather on the basalt, which is the basic geological composition of the peninsula, have created many fascinating and spectacular land forms. Yawning crevices and gullies, hundreds of feet deep; sea stacks or pinnacles over a hundred feet in height; 400 to 500 foot sea cliffs, which drop straight to the sea below; gentle sloping coves with waterfalls; and deep inland crevices, are a few of the geophysical formations which one encounters on the Blomidon Peninsula.

The peninsula is ecologically significant in various ways. For example the area is one of the few habitats where the conditions of wind, altitude and temperature have allowed the rare and historic arctic-alpine element to survive. Two of the more notable of these plants species are Poa Glaucantha and Sedum Rosea. The spectacular flow of the Bay of Fundy tides about the tip of Cape Split is the best example of the tidal phenomenon on earth.

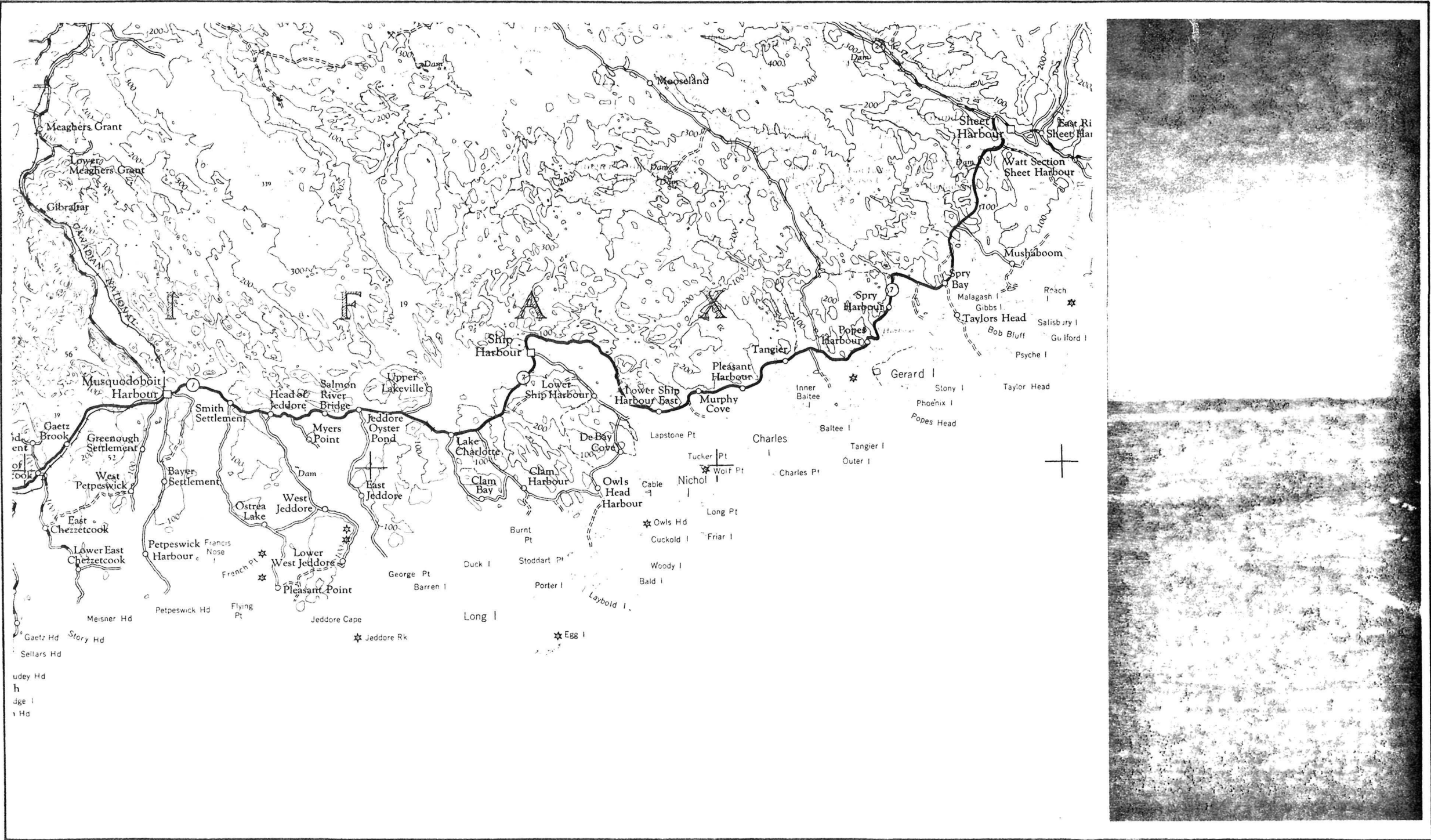
The specific area of interest extends from the tip of the split towards the Blomidon Provincial Park and totals approximately 6 square miles.



CAPE LA HAVE ISLANDS **C**

The Cape La Have Islands and mainland fringe are representative of the irregular and diverse coastline of south-eastern Nova Scotia. The area also provides a representative sample of Atlantic Coastal beaches ranging from fine sand to shingle beach and varying in character from the sheltered beaches of Reisser Beach to the surf-swept beaches of Bantan Bay and King Beach. The three major marine environments of the Nova Scotia coast and their inhabitants are present in the area: (1) the warm brackish waters of the protected bays and estuaries containing temperate - boreal species; (2) the exposed outer beaches and semi-protected rocky shores with its Boreal species; and (3) the cold water reefs with their sub-arctic species.

The mainland area behind the beaches is typical of a glaciated area and is characterized by a series of drumlins providing scenic overlooks of the Atlantic Ocean. A number of terrestrial and coastal ecosystems occur which should be protected, such as the coastal white spruce forest, salt and fresh water wetlands, dune and beaches, salt marshes, pioneer ecosystems of wind and spray, estuary ecosystems and sea bird colonies.



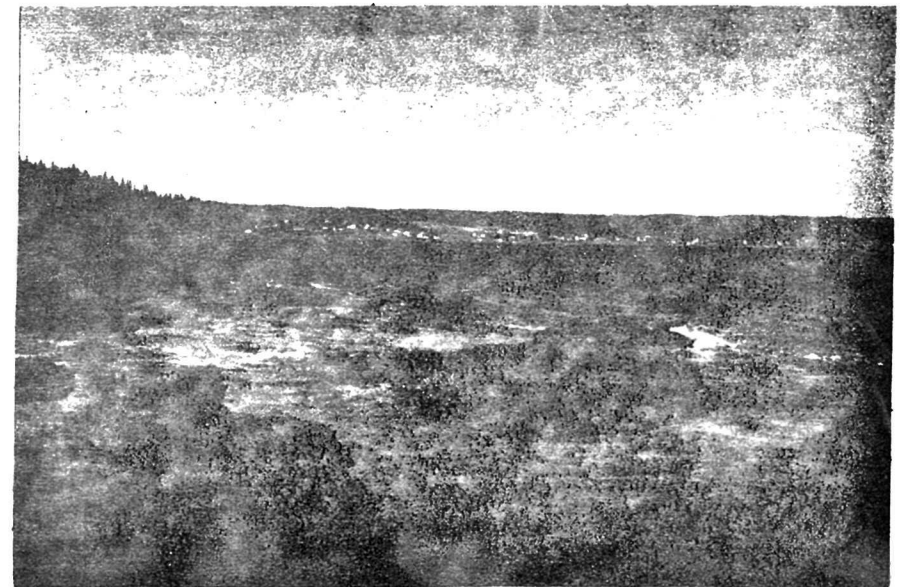
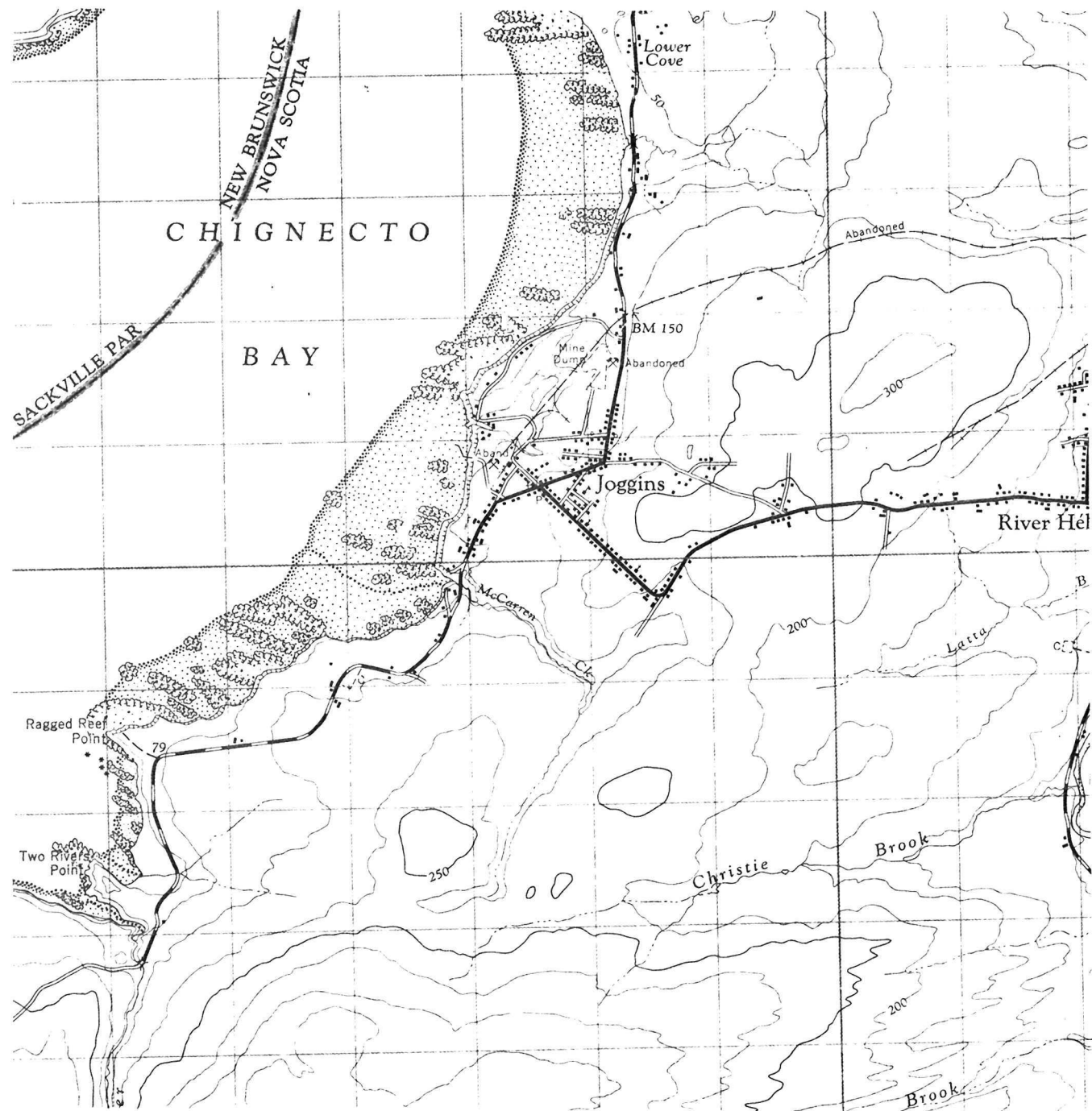
SHIP HARBOUR **D**

Located on Nova Scotia's scenic eastern shore this area is significant due to the variety and diversity of its coastal features, examples of which are: sandy, pebble and boulder beaches, rocky islands, sheltered coves, exposed headlands (drumlins), salt water marshes, small sand dunes, bogs, barren islands, etc. The shoreline is characteristic of a drowned coastline.

Most of the Atlantic shoreline of Nova Scotia is shielded from the full force of the ocean by a barrier of off-shore islands which creates intimate enclosures of a marine environment. For three quarters of its frontage the Ship Harbour area presents a very good illustration of this island protection. Five large islands – Long, Porter, Laybold, Cable and Nichol anchor a scattering of smaller islands, reefs and ledges. The western quarter of the shoreline of the area is relatively open to the sweep of the sea, with only a few small islands off-shore.

Drumlins represent the predominant landform across the area. In general, they are well drained, but they may be separated by swampy stream bottoms and low, reedy lakes. In contrast, lakes found on the bedrock are clear and rocky.

The wide variety of natural conditions at Ship Harbour lend themselves to an abundance and a variety of game species. It has a good collection of the various seacoast habitats. Principal mammals include moose, white-tailed deer, black bear, red fox, muskrat, mink and otter.

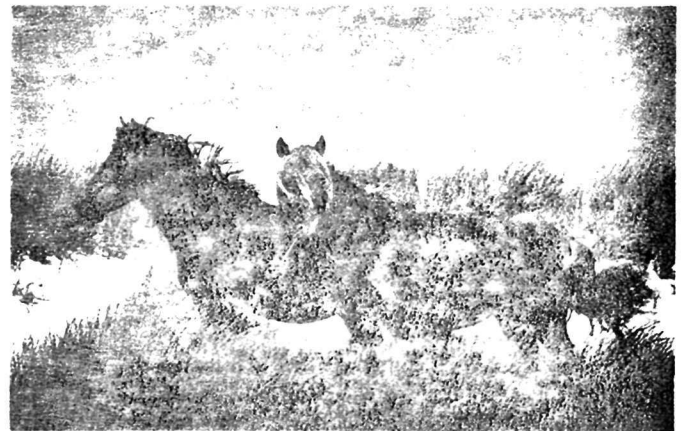
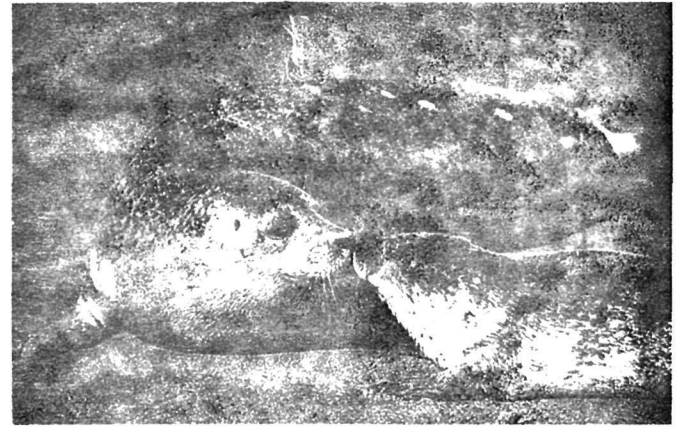
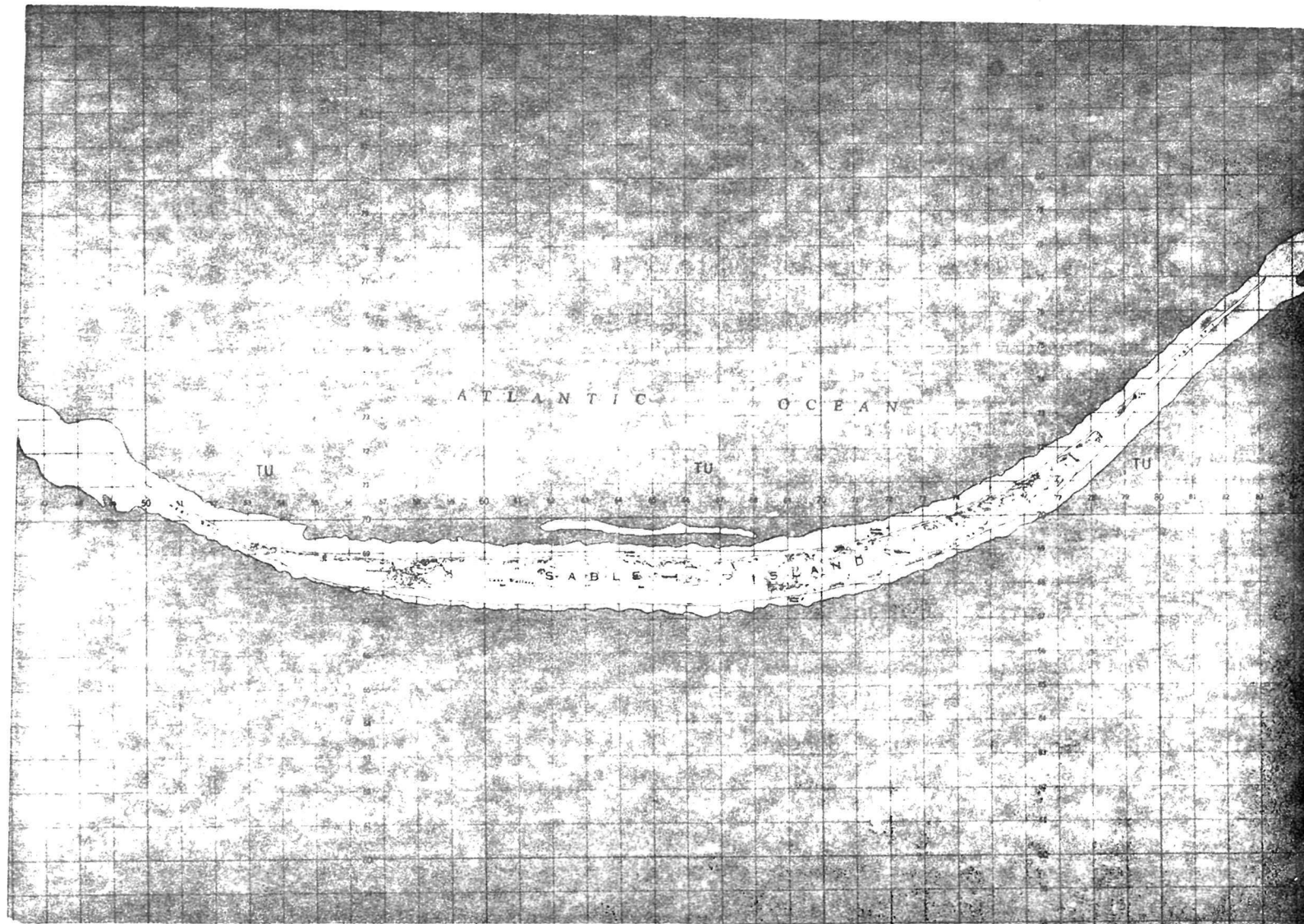


JOGGINS FOSSIL BEDS E

The broad area of Carboniferous bedrocks extending northward from the Cobequid mountains to Northumberland Strait, is well exposed in the 50 feet high cliffs facing Minas Basin along the entire north-western shoreline of Western Cumberland County. The tilted beds of sandstone and conglomerate exposed in these cliffs represent the vast accumulation of sediments during the millions of years of the upper Carboniferous period.

Fossils may be found throughout, but are especially rich in the so-called Joggins series in the Coal-mine Point section of the shoreline near Joggins. Some thirteen 300 million year old fossilized tree trunks ranging up to 30 feet in height and 2 feet in diameter are exposed erect in the cliffs, and the shore is littered with rock debris filled with a wide variety of fossilized plant and sea life.

According to Goldthwaite's "Physiography of Nova Scotia", "few sections on the continent have furnished such a clear and realistic picture of past geography as this section at Joggins".



SABLE ISLAND

F

Sable Island, lies in the North Atlantic Ocean some 90 miles off the Nova Scotia mainland. This small, east-west trending, crescentic-shaped sand bar is a geomorphic oddity in terms of location. It is the only emergent point on the continental shelf off northeastern North America and has few counterparts in today's oceans.

Geologically, the island is of great interest as a relic of more extensive offshore islands at the close of the Pleistocene era, and as one of the most outstanding examples of coastal dune formations. Its coast also provides one of the best localities for studying high energy environments of moving sands and changing bars.

Although sometimes depicted as a place of sandy desolation, lashed by seas and swept by winds, there is an abundance and diversity of life. The Sable Island horses are perhaps the most famous of the island's wildlife, although not endemic. The island is the only breeding ground for the Ipswich Sparrow, one of only three of four birds breeding uniquely in Canada, and which is rightly included on international lists of "endangered species". Other birds, including ducks, large colonies of gulls and terns, and the southernmost breeding Least Sandpipers, make Sable Island their home as well. The island is also an important stop-over for migrants during the spring and autumn months, including many strays from afar.

The botany of the island has been studied by a number of scientists. Some varieties of plants are unique to the island, and the population genetics of others may be peculiar.

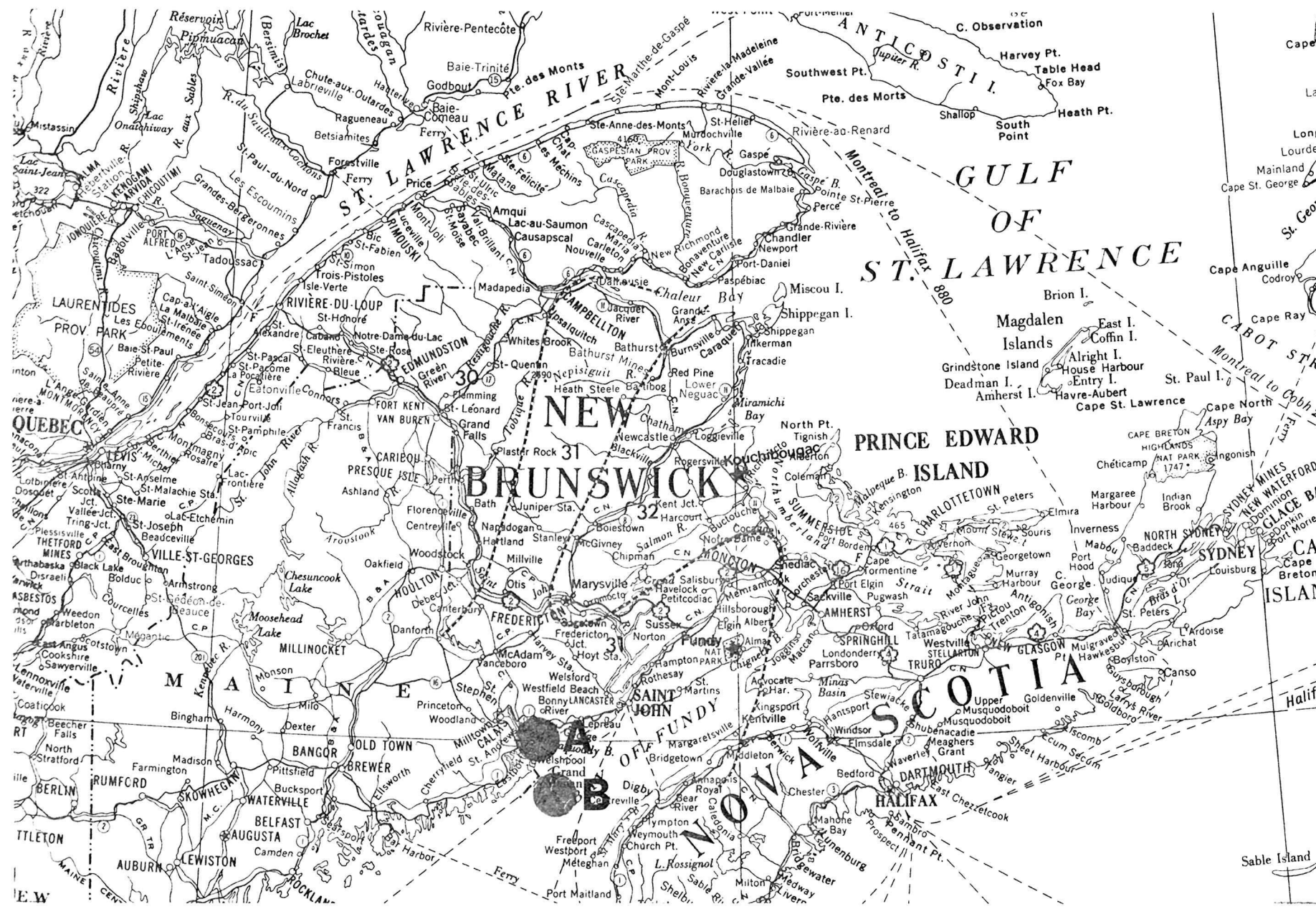
The island's beaches, some of the finest in Canada, are littered with a variety of seashells, of which at least three have been found nowhere in Canada. Ancient oyster and bay scallop shells which have been radiocarbon dated at 5,670-3,560 years B.P. can be collected as well. Harbour and grey seals are numerous on the surrounding waters. However, only the occasional tusk or bone remains of the once great herds of walruses.

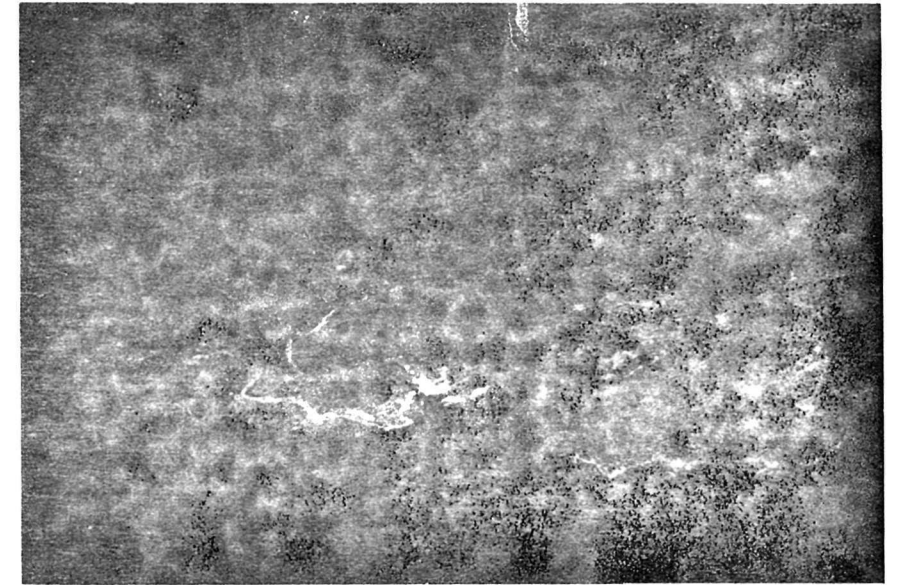
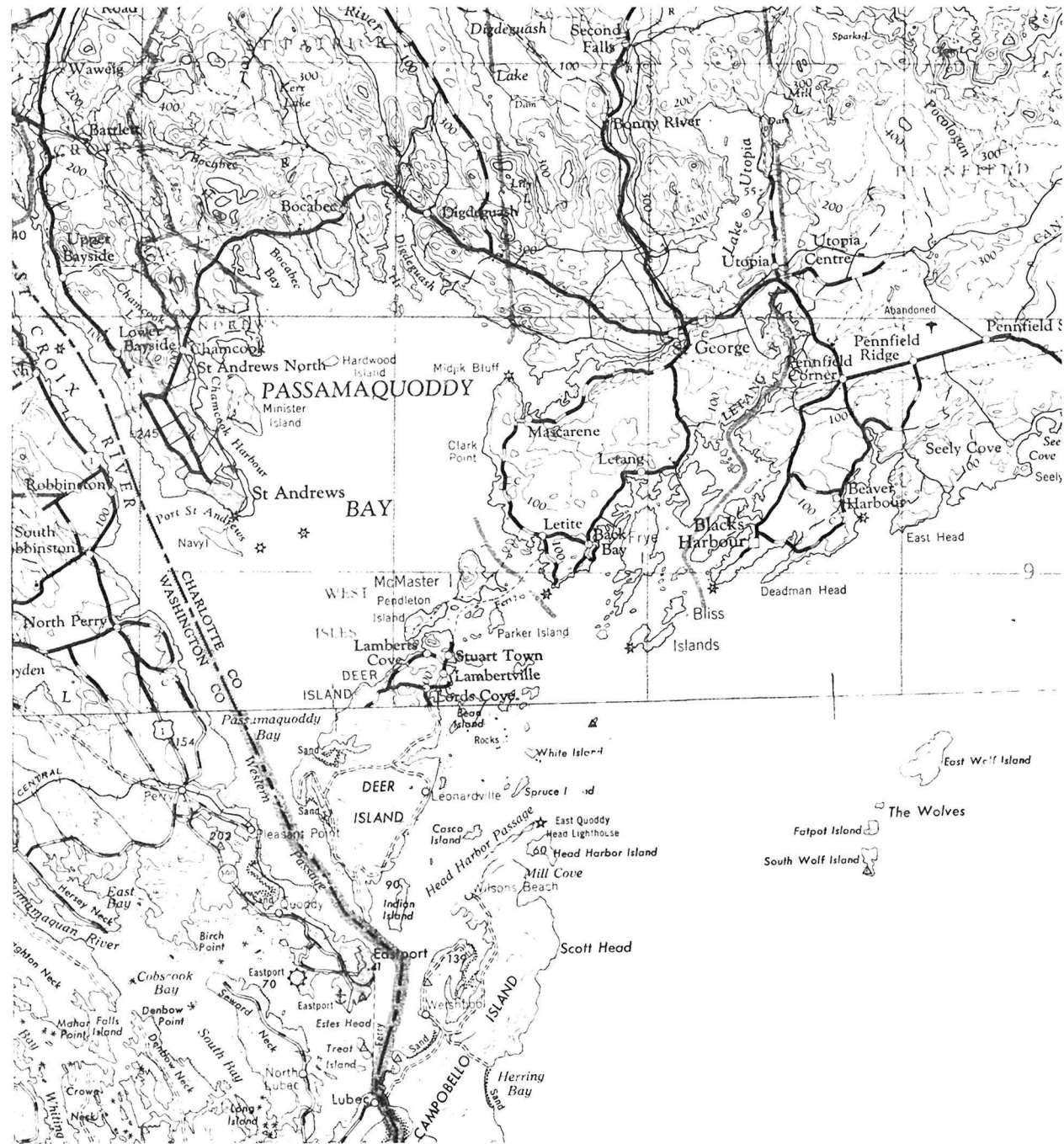
Sable Island must also be listed among our historic and cultural treasures. Visited and vividly described by Champlain and other early explorers, it gained repute as the "graveyard of the Atlantic". Over 250 shipwrecks have been charted in the surrounding sandy shoals and countless lives lost. In those days of tragedy and valour, the life-saving stations of the island were among the earliest national commitments of the federal government. Although much has been written about its history, much remains to be evoked from archives and the island itself.

New Brunswick

A – Deer Island Archipelago

B – Grand Manan Archipelago





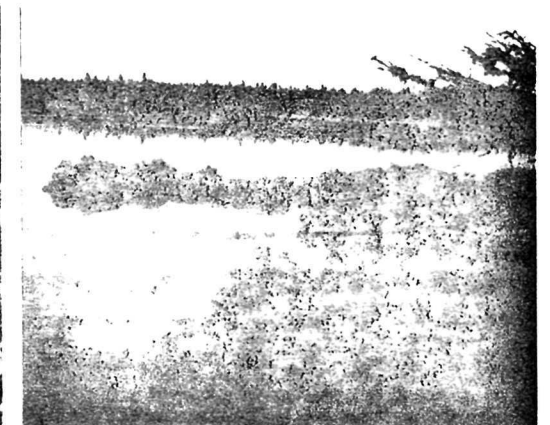
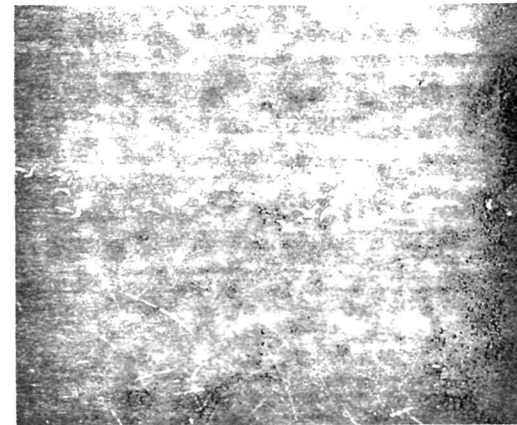
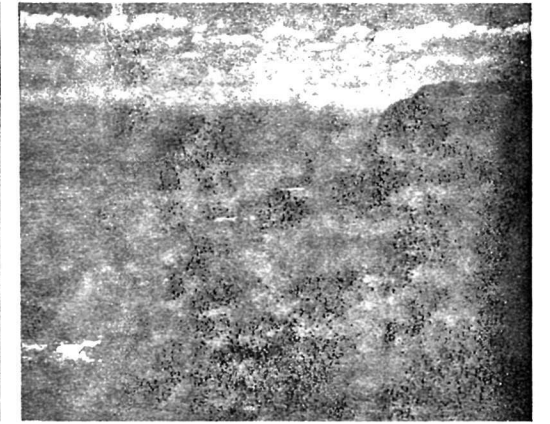
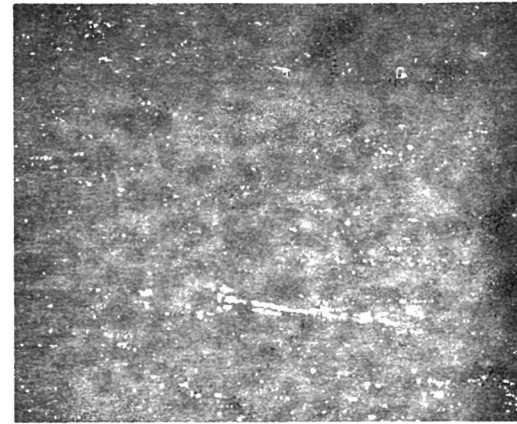
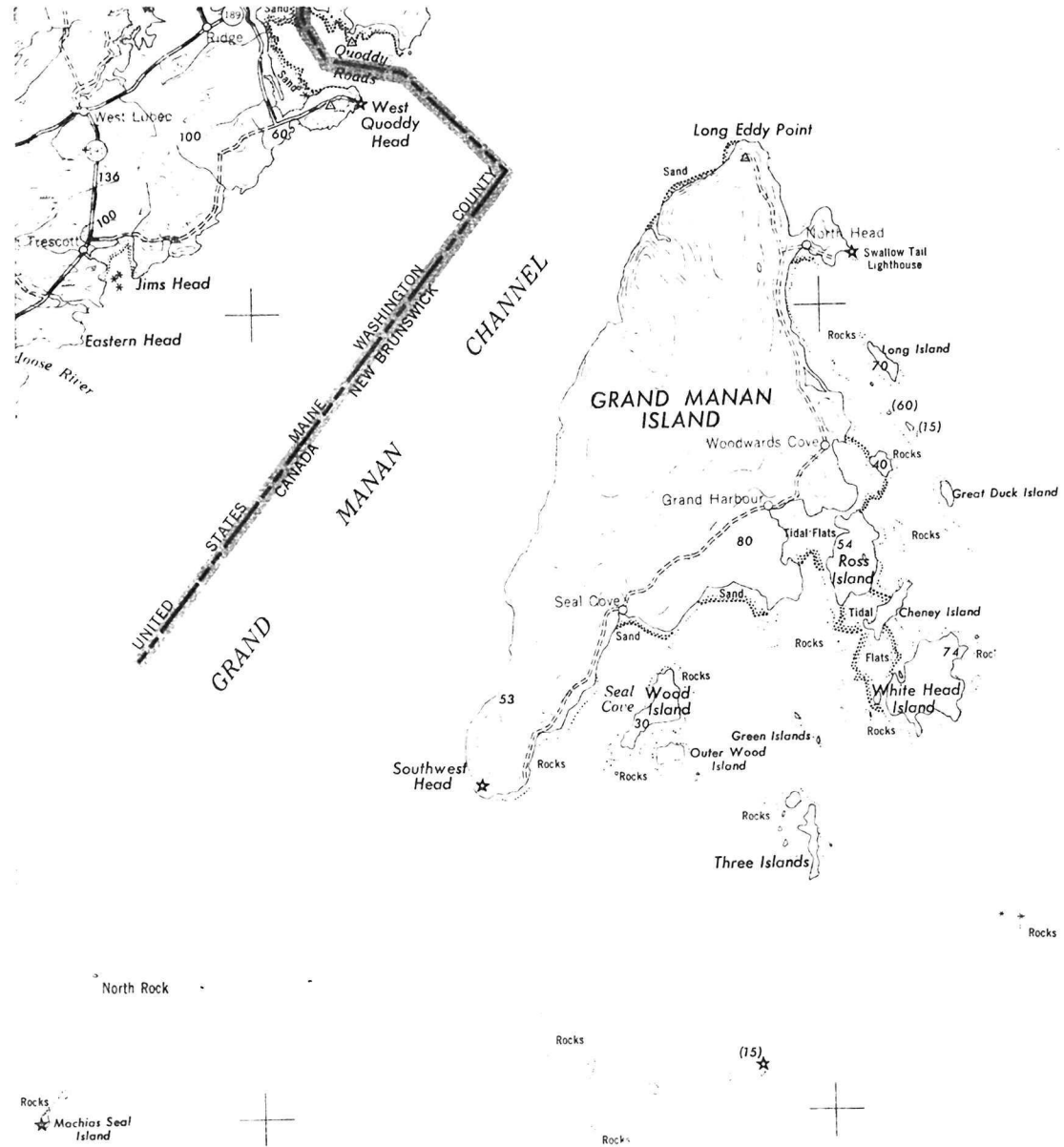
This island Archipelago consists of some forty islands, numerous reefs, shoals, passages and ledges. The coastline is rugged and rocky and presents some of the finest maritime scenery in the Bay of Fundy. The cold saline waters support an abundance of zooplankton animals, the foundation of the marine biological food chain in the western Fundy Bay.

Tides, tide rips, whirlpools and upwellings are spectacular oceanographic phenomena. Islands and islets support significant seabird breeding colonies as well as feeding areas for vast populations of migrating and wintering waterfowl and shorebirds. Major breeding colonies of Black Guillemots, Great and Double-Crested Cormorants, Eider Ducks, Herring and Great Black-Backed Gulls are scattered throughout the Archipelago. The endangered Blue, Fin and Minke whales and significant numbers of Harbour Seals and Common Porpoise inhabit waters of this Archipelago.

Subtidal and intertidal marine life representative of the Acadian and Virginian Marine Faunal Provinces of the Atlantic Seaboard is extremely rich and diverse.

The significance of this area as a marine nursery and rearing area for many marine flora and fauna living in the Bay of Fundy has been recognized by the scientific community.

The Archipelago is one of the most outstanding regions for observing marine life in the Bay of Fundy.



GRAND MANAN ARCHIPELAGO B

The Grand Manan Archipelago consists of some fifteen major islands, numerous islets, ledges, shoals, reefs, and tidal flats. A moderated maritime climate subjects the Archipelago to periods of prolonged fog and inclement weather.

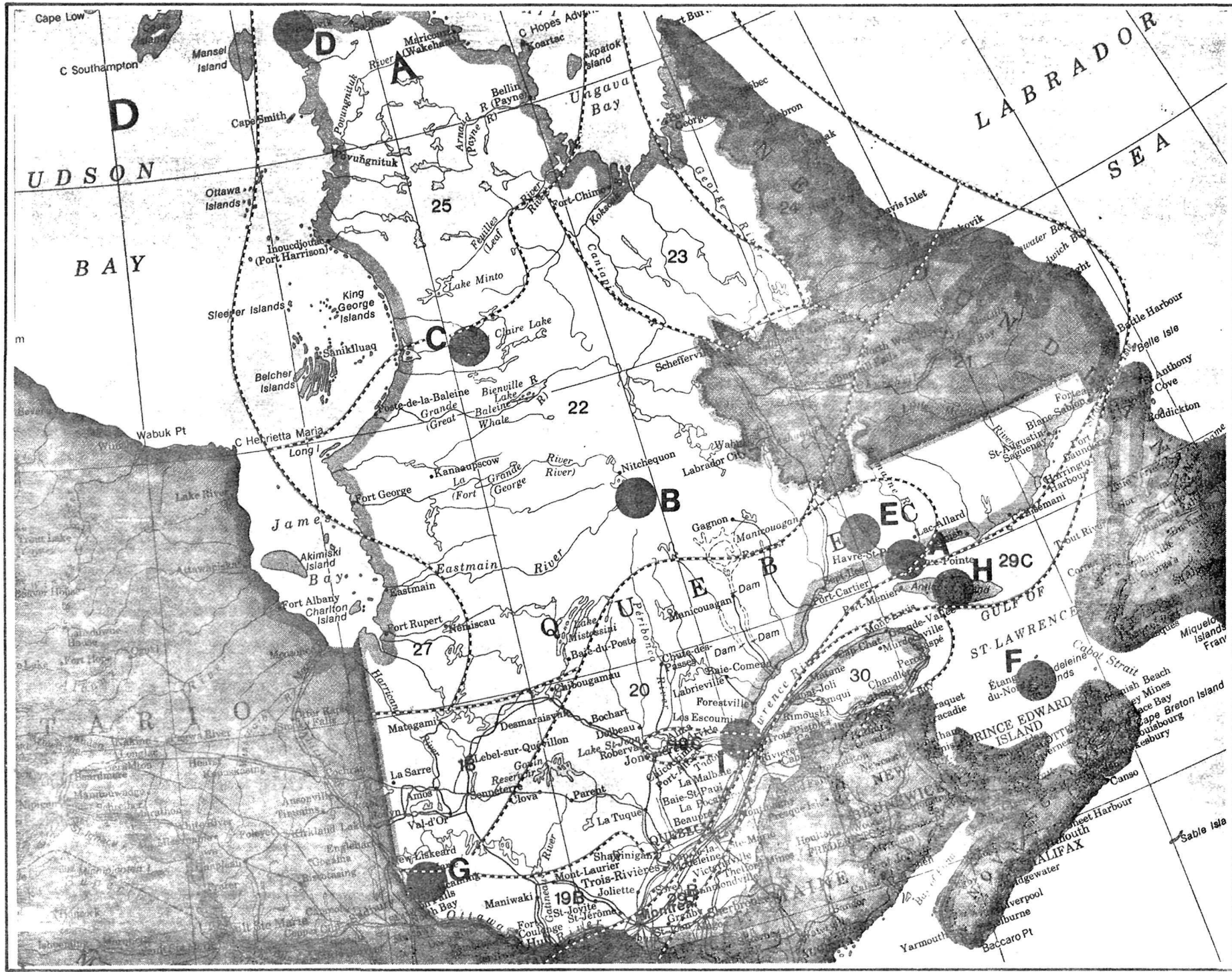
Effective differences in water characteristics creates a wide and significant diversity of marine phytoplankton and zooplankton organisms. The shallow waters provide a suitable habitat for a rich and abundant subtidal and intertidal marine biota characteristic of the Outer Bay of Fundy, Atlantic and Virginian Faunal Provinces.

The Island is one of the key stopover areas for a diverse group of migrating shorebirds and waterfowl. Critical nesting habitats for Black Guillemots, Leach's Storm Petrels, Black-Crowned Night Heron, Herring and Great Black-Backed Gulls are located on the various island systems. A significant number of Pinnipeds (Grey Seal) and Cetacea (Fin, Minke and possibly Blue and Right Whales) feed in the waters around Grand Manan.

Numerous coastal geologic themes are characterized by spectacular triassic basalts and pre-silurian metamorphic cliffs. The few island lakes and salt marshes on the Eastern Coast of Grand Manan provide suitable habitat for a variety of flora and fauna. The endangered Osprey and Bald Eagle nest on suitable cliffs and bluffs throughout the Archipelago.

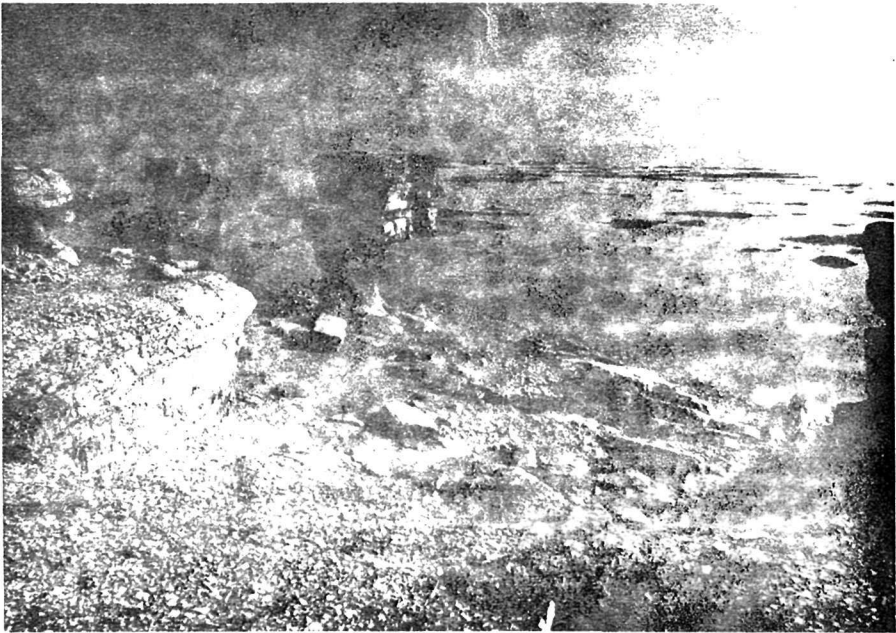
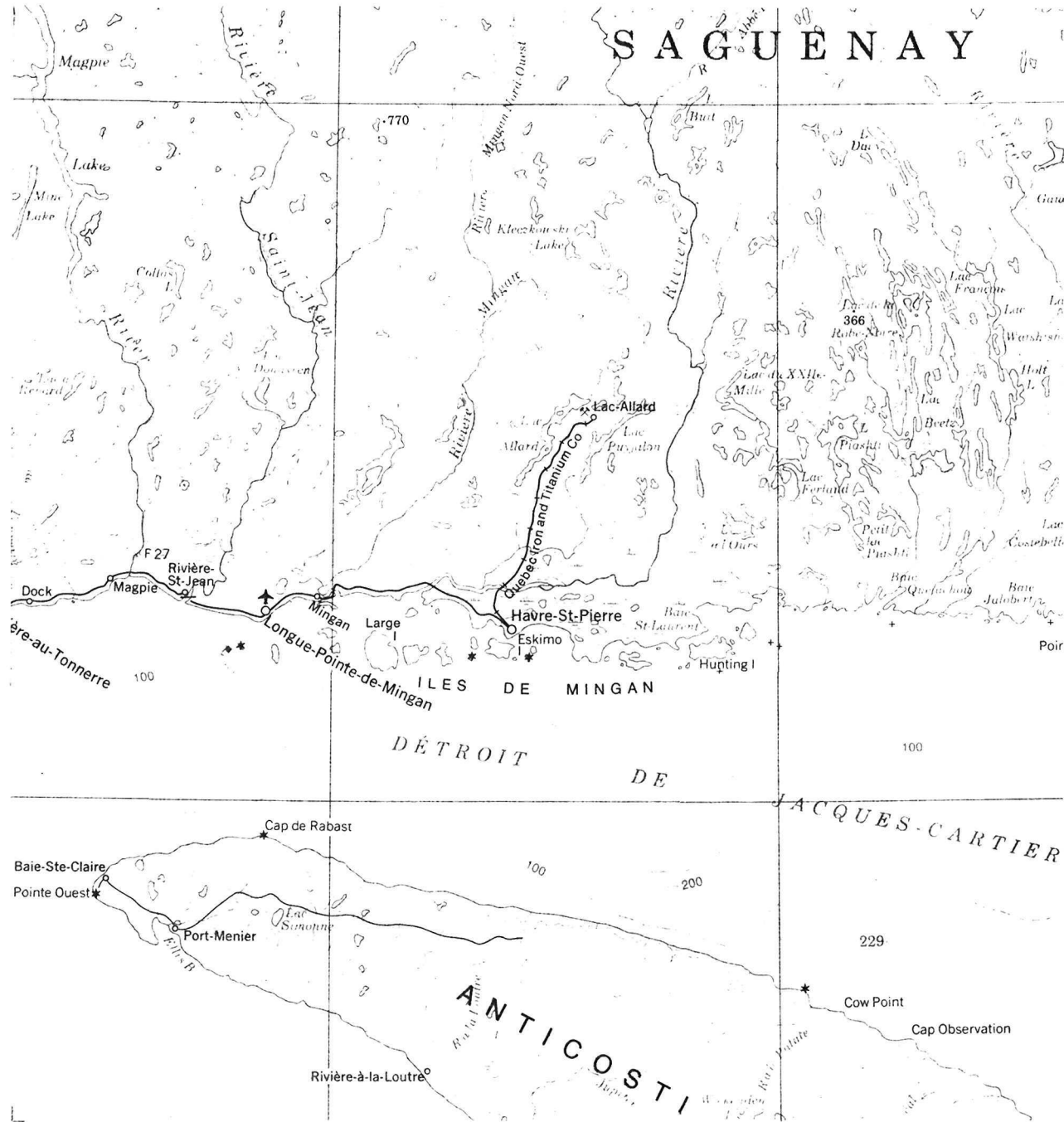
New Brunswick has established a provincial picnic area at Castalia Marsh on Grand Manan. A Canadian wildlife bird sanctuary is located at Great Pond on Grand Manan. Bowden College (U.S.), has a scientific research centre on Kent Island. The college is conducting studies on one of the few nesting sites of Leach's Petrels.

The Archipelago is rich in coastal marine history. Historic shipwrecks abound throughout the many passages and shoals.



Québec

- A - Les Îles de Mingan
- B - Région des monts Otish et du Lac Naococane
- C - Golfe de Richmond
- D - Cap Wolstenholme et les Îles Digges
- E - Rivière Manitou
- F - Les Îles de la Madeleine
- G - Kipawa
- H - Île Anticosti
- I - Fjord du Saguenay



LES ILES DE MINGAN **A**

Face à l'île d'Anticosti, les Iles de Mingan longent en une mince bande la rive nord du golfe Saint-Laurent sur une longueur de 50 milles. La roche se compose de calcaire datant de l'Ordovicien et appartenant à la formation dite de Mingan.

Les îles sont un exemple de côte à rias; l'érosion des assises de calcaire par l'action marine y dessine des sculptures compliquées et très originales comme des pots à fleurs, des écueils, des voûtes.

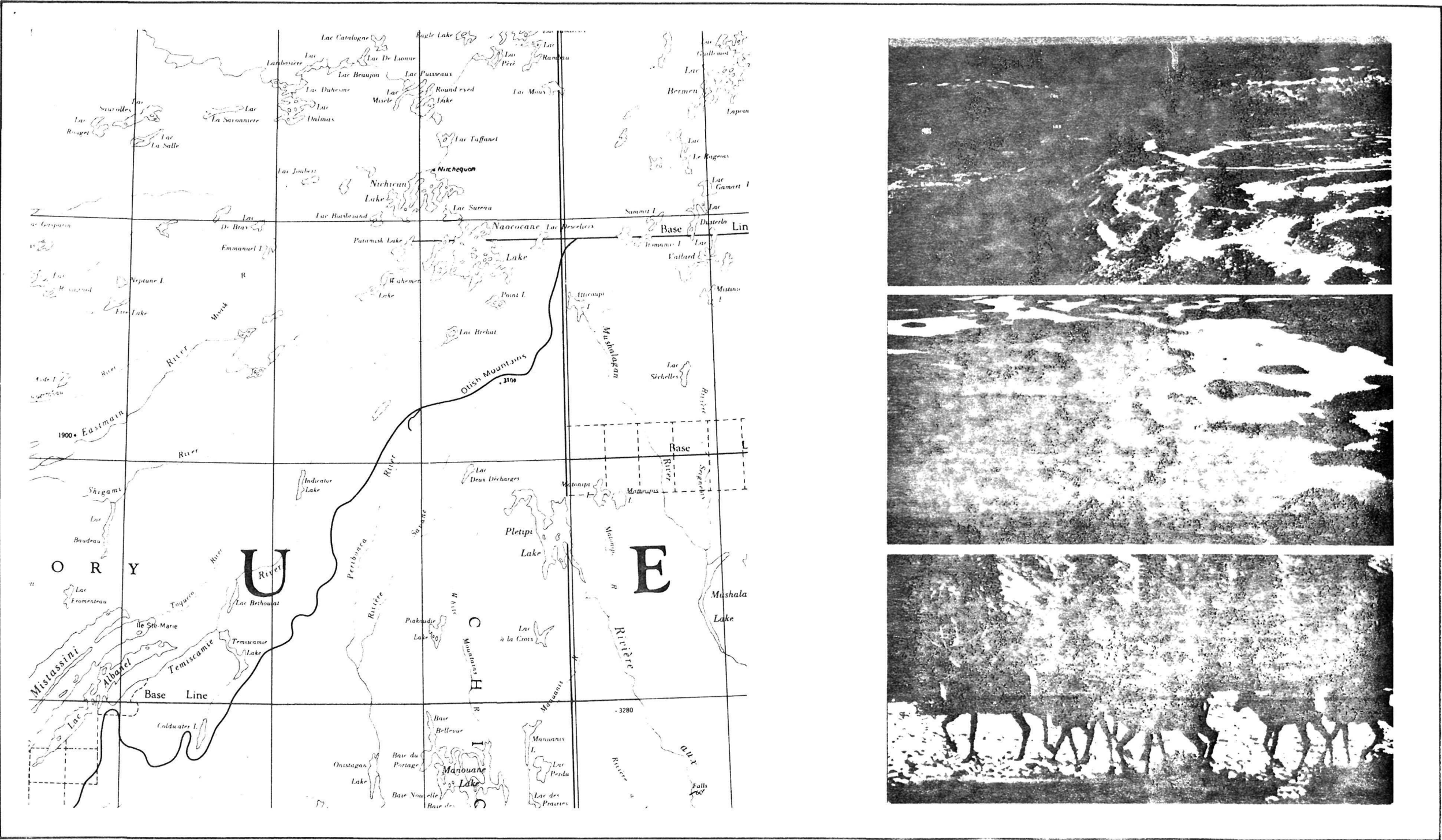
Un climat modéré maritime donne un été doux et ensoleillé.

L'écosystème forestier est constitué d'une végétation bien développée de sapins baumiers, d'épinettes et de bouleaux.

Une diversité de la faune règne dans cette région. Les eaux du large fournissent une quantité de morues, de homards, de flétans, de phoques, de baleines blanches et de marsouins alors que trois des îles sont le refuge d'une grande variété d'oiseaux.

Les structures présentes expliquent l'évolution de l'histoire naturelle de la Côte Nord du Québec.

L'équilibre de la flore est unique et fragile.

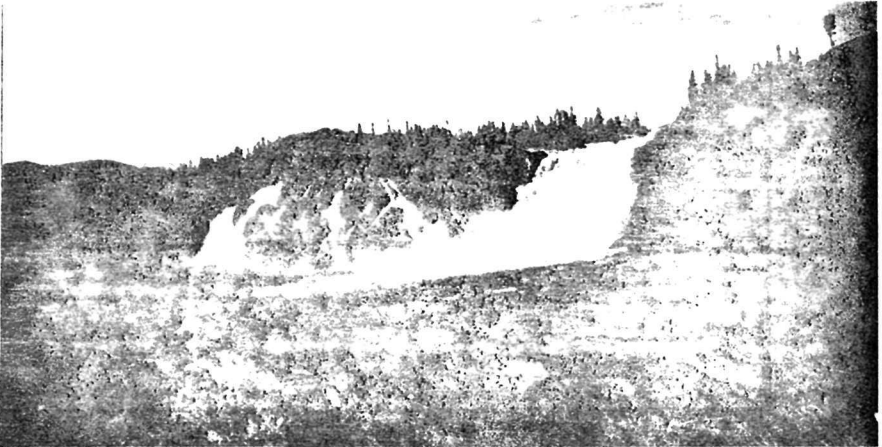
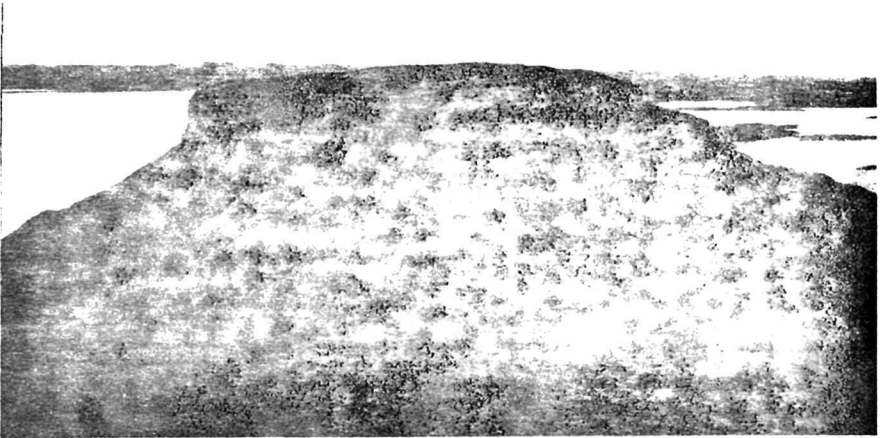
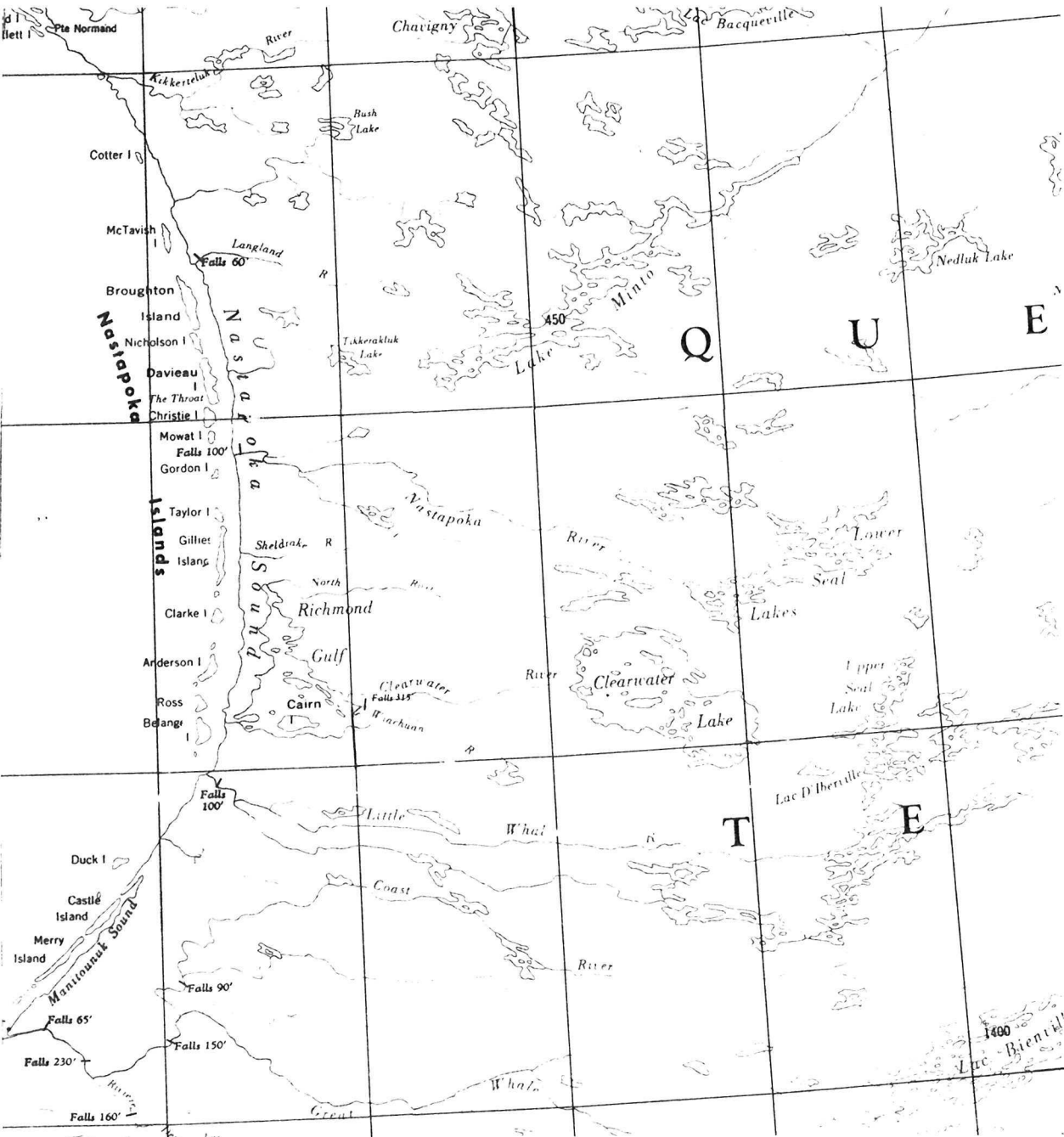


LES MONTS OTISH ET LE LAC NAOCOCANE B

Localisé au Nouveau-Québec dans la région du plateau lacustre boréal, le secteur des Monts Otish et du lac Naococane est l'une des régions qui capitalise quelques uns des plus hauts sommets dans l'Est du Canada (3,700 pieds). Les points culminants de ce massif sont à la limite du partage des eaux qui se drainent dans trois directions différentes: le golfe du Saint-Laurent, la baie de James et la baie d'Ungava. Suivant les changements d'altitude, trois zones distinctives de végétation caractérisent le milieu: la zone d'épinettes noires boréales (2,700 pieds); la zone subalpine (2,700 à 3,000 pieds) et la zone arctique (3,000 pieds et plus).

Du point de vue faunique, la région constitue la limite nord de l'élan d'Amérique tandis que des populations importantes de caribous y trouvent un habitat naturel de première qualité. Une multiplicité et une diversité d'espèces d'oiseaux arctiques et subarctiques, qui se retrouvent dans un des secteurs les plus méridionaux au Canada, ajoutent aux valeurs biophysiques de ce milieu naturel.

Une des dernières aires à être dégagées de glace lors de la glaciation continentale, la région des Monts Otish et du lac Naococane présente également toute une variété de formes glaciaires, fluvio-glaciaires et périglaciaires.

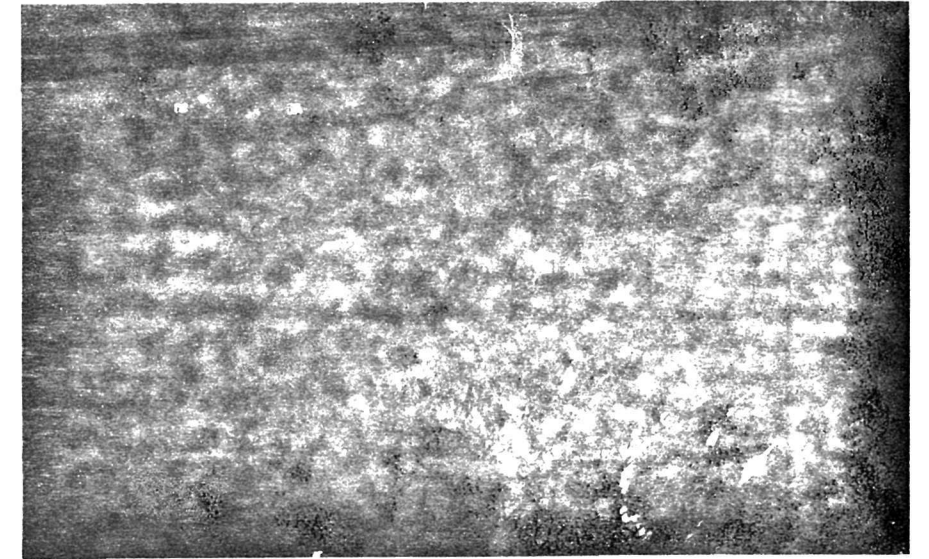
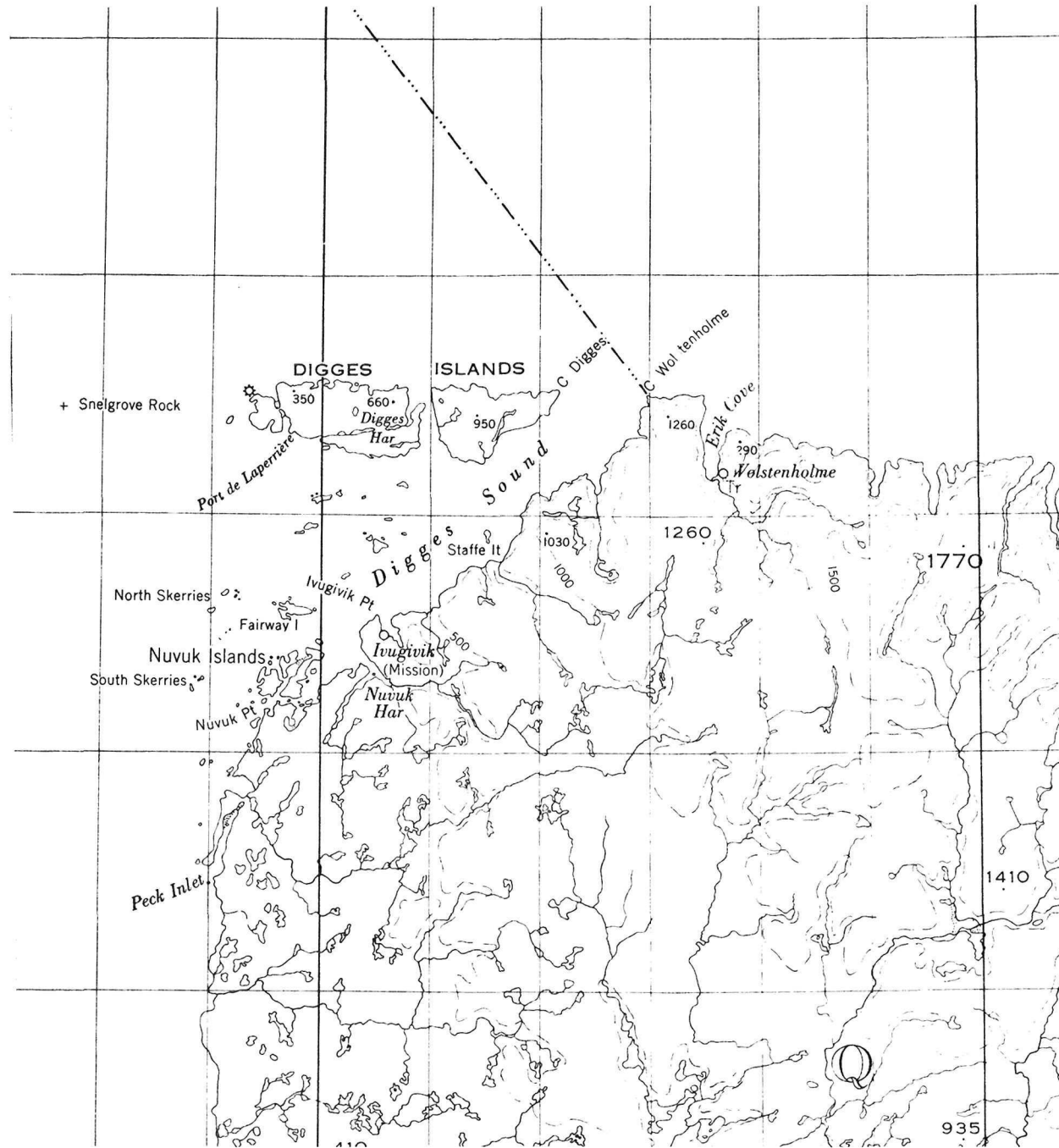


Le Golfe de Richmond, localisé à la frontière de la forêt boréale et de la toundra arctique se caractérise physiographiquement et visuellement par des reliefs très spectaculaires. Des falaises et des cuestas ayant des remparts de plus de 1500 pieds de dénivellation peuvent être considérées comme éléments exceptionnels au Nouveau-Québec.

Deux des principaux cours d'eau, qui alimentent en eau douce le Golfe de Richmond, la rivière à l'Eau claire et la Wiachuan se signalent par leur aspect sauvage et spectaculaire; à l'embouchure de la rivière Wiachuan une chute de 315 pieds de dénivellation ajoute à la beauté du paysage.

Les eaux saumâtres du Golfe sont fréquentées régulièrement par plusieurs mammifères marins tels les bélugas et les phoques; l'omble arctique, frayant dans les rapides à la sortie des rivières, y trouve également un habitat naturel de première qualité. Le lac à l'Eau Claire, qui est à la source de la rivière à l'Eau Claire, est formé de deux cratères; d'origine météorique ou volcanique, ce lac aux eaux limpides et aux littoraux escarpés est au nombre des plus riches en faune aquatique (truites, ombles de fontaine, phoques d'eau douce etc.).

La région du Golfe de Richmond et du lac à l'Eau Claire est également une limite ethnique et historique importante pour les indiens et les esquimaux.



La région des îles Digges et du Cap Wolstenholme est caractérisée par une physiographie rude, vallonnée et escarpée. La roche nue affleure et les escarpements excèdent souvent 1,000 pieds d'altitude. Au Cap Wolstenholme, les falaises sont perpendiculaires et les changements physiographiques poussés à l'extrême.

La géologie de cette région est simple, définie par une présence de granite. Les basses terres, inférieures à 700 pieds, montrent une série de plages marines constituées de matériel glaciaire délavé.

Le climat, rigoureux en hiver et frais en été, est un facteur écologique important expliquant la pauvreté de la végétation. Constituée de lichens et de quelques broussailles, elle n'offre guère l'hospitalité à la faune terrestre.

Une importante colonie de marmettes habite cette région.

La région fut identifiée comme sanctuaire pour les populations des marmettes.



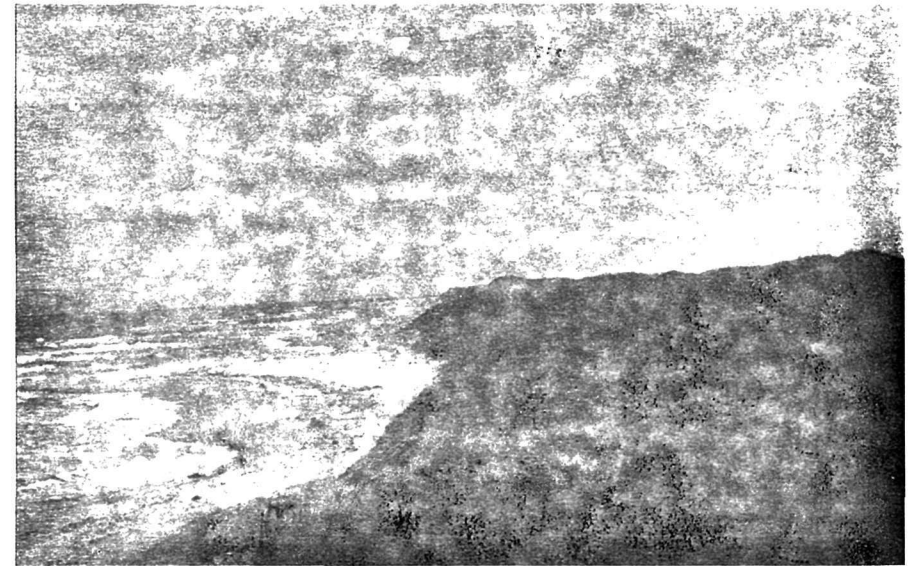
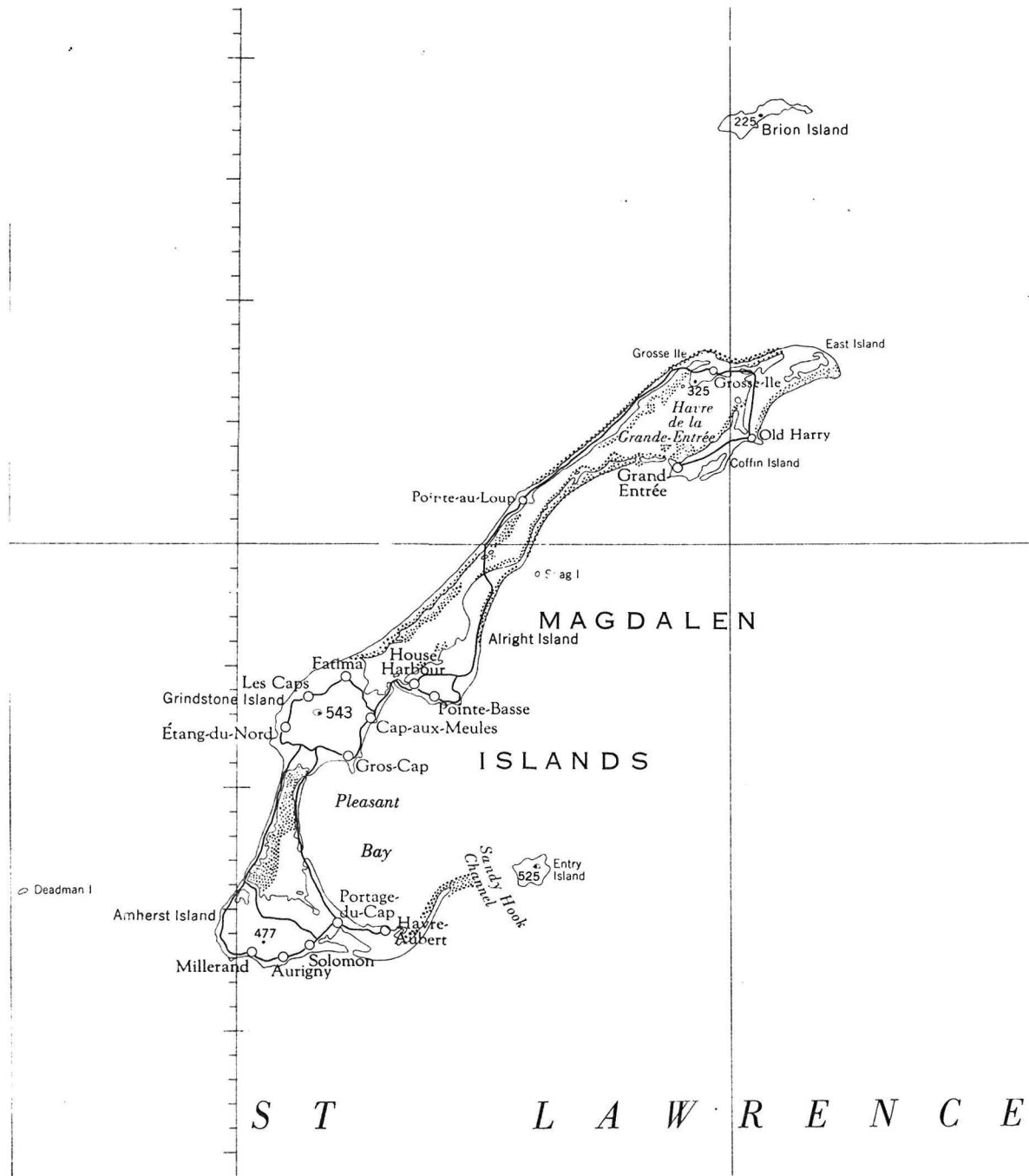
La région du bassin de la rivière Manitou offre une multitude de formes variées, caractéristiques de la topographie du Bouclier Canadien. Elle comprend des hautes-terres accidentées, des vallées profondes, des falaises abruptes et des basses-terres. L'aspect déchiqueté de la côte est le résultat d'une submergence marine et du remaniement des éléments topographiques par érosion fluviale.

Au point de vue géologique, les hautes-terres sont constituées de roches sédimentaires et de roches métamorphiques (granite) datant du début du Protérozoïque Supérieur. Par ailleurs les basses-terres ont surtout une composition de grès, de calcaire et de schistes argileux datant du Cambrien et de l'Ordovicien.

La forêt boréale prédomine dans les régions inférieures à 2,500 pieds. Les essences dominantes sont l'Épinette noire, l'Épinette blanche et le Sapin baumier. Les points les plus élevés (2,500-3,500 pieds) offrent un paysage de toundra typique des zones de transition.

La forêt boréale abrite une grande variété d'animaux sauvages (caribou, orignal, oiseaux migrateurs) alors que les nombreux lacs et rivières sont favorables à la truite. Ces cours d'eau aux larges deltas permettent le frai du saumon de l'Atlantique. Au large des côtes, on retrouve une abondance de mammifères marins comme les phoques, les baleines et les marsouins. La construction éventuelle de la route entre Sept-Iles et Havre St-Pierre permettra l'accès à la région.

•• Bird Rocks



LES ÎLES DE LA MADELEINE **F**

Les Îles de la Madeleine sont localisées dans la partie sud du Golfe St-Laurent, approximativement à 60 milles au nord de la Pointe Nord-Est de l'île-du-Prince-Edward. Elles constituent un archipel de 12 îles dont sept d'entre elles sont reliées par des flèches de sables et des tombolos.

Historiquement, les Îles-de-la-Madeleine, furent visitées et décrites par Jacques Cartier lors de son premier voyage au Canada en 1534 ainsi qu'à sa deuxième visite deux ans plus tard. Elles furent également utilisées comme base terrestre par les pêcheurs Normands et les Bretons vers la fin du 16 ième siècle. Les Baleiniers Basques et les chasseurs de morse l'utilisèrent comme point de raliement pendant plus d'un siècle.

A cause de leur position, face aux vents du Golfe St-Laurent et situées sur une importante route historique de commerce entre le Canada et l'Europe, les îles sont devenues le site de plus de 200 naufrages dans leurs eaux environnantes.

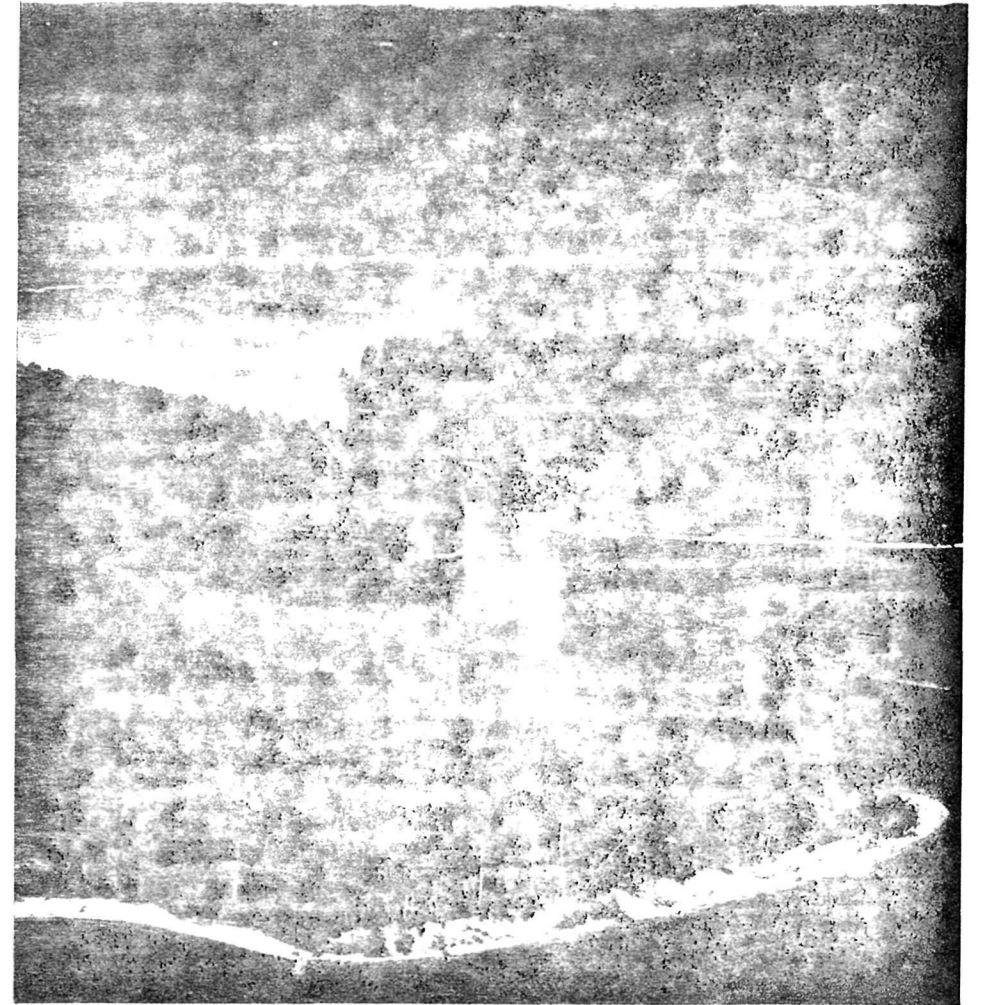
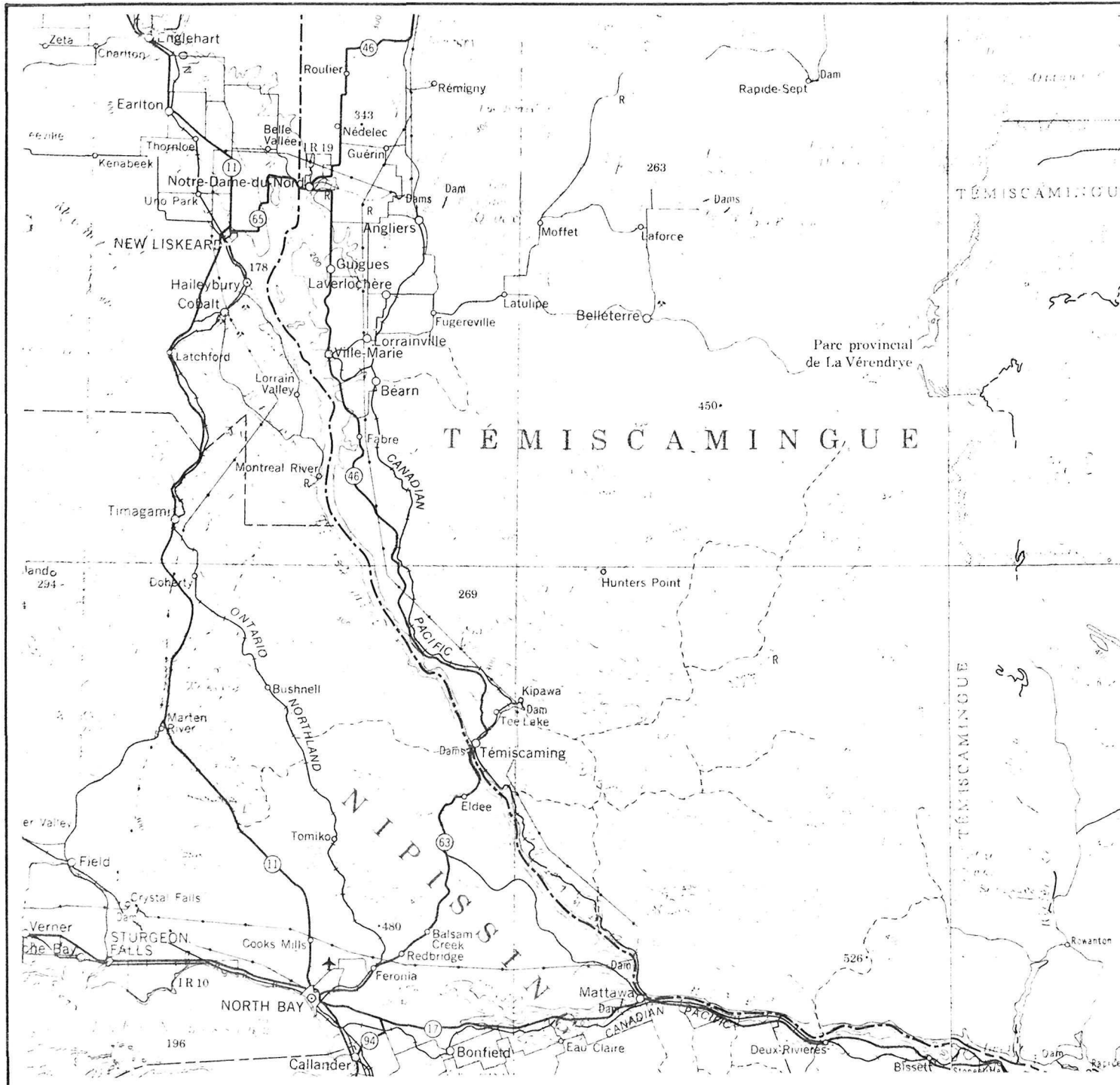
Les valeurs naturelles sont également impressionnantes. Les géologues indiquent qu'il a pas eu de glaciation continentale sur cet archipel pendant l'ère Pleistocène; vu sa position insulaire, elles demeurent un des rares endroits dans l'Est du Canada à ne pas avoir été glacé.

Les Îles sont aussi un site privilégié au Canada pour l'étude de la géomorphologie littorale. Elles comprennent un vaste éventail de formes de terrains engendrées par les vagues et les courants (falaises littorales, grottes, arches, cheminées, flèche de sables, tombolos).

Les Îles sont en outre favorables à un grand nombre d'espèces florales endémiques dont plusieurs ne se retrouvent nul part ailleurs au monde, telle l'Aster Laurentianus var Magdalense et le Myriophyllum magdalense. Des quatre espèces de mammifères présents dans l'archipel, seulement les souris-sylvestre des Îles de-la-Madeleine (Peromyscus maniculatus eremus) sont considérés comme autochtones. L'Extrémité Est des îles est une zone importante pour la sauvagine et les oiseaux migrateurs.

Les eaux marines entourant les îles sont une importante ressource, garantissant la conservation; elles renferment un échantillonnage presque complet de la vie florale et faunique du milieu marin subarctique, caractéristique de la région marine du Golfe du St-Laurent. Les glaces flottantes qui dérivent le long de la côte nord des Îles-de-la-Madeleine et autour des îles Brion et aux Oiseaux sont un milieu privilégié pour l'accouplement de la naissance des phoques du Groenland. Les phoques gris et communs sont également présents en bordure des côtes tout au long de l'été.

La plongée sous-marine dans la région devient de plus en plus populaire, due à l'abondance et à la variété de la faune marine, à une bonne visibilité sous l'eau et aux nombreuses épaves. Il y a des plages superbes, considérées par plusieurs comme étant les meilleures au Canada; les eaux tièdes, d'autre part, commencent à être découvertes par les canadiens.



Localisé dans le nord-ouest du Québec, comté de Témiscamingue, le secteur de Kipawa est représentatif de deux grandes régions naturelles soit celle des Hautes Terres boréales du Centre et celle de la région précambrienne du St-Laurent et des Grands Lacs.

Du point de vue géologique, la roche en place, d'âge précambrien, est partagée entre les provinces géologiques du Keewatin et de Grenville. Le contact entre ces deux grandes provinces prend la forme d'une ligne de faille allant du nord du lac Guay, à l'extrémité septentrionale du lac Ostaboningué et enfin le long de la rivière Sesaginaga.

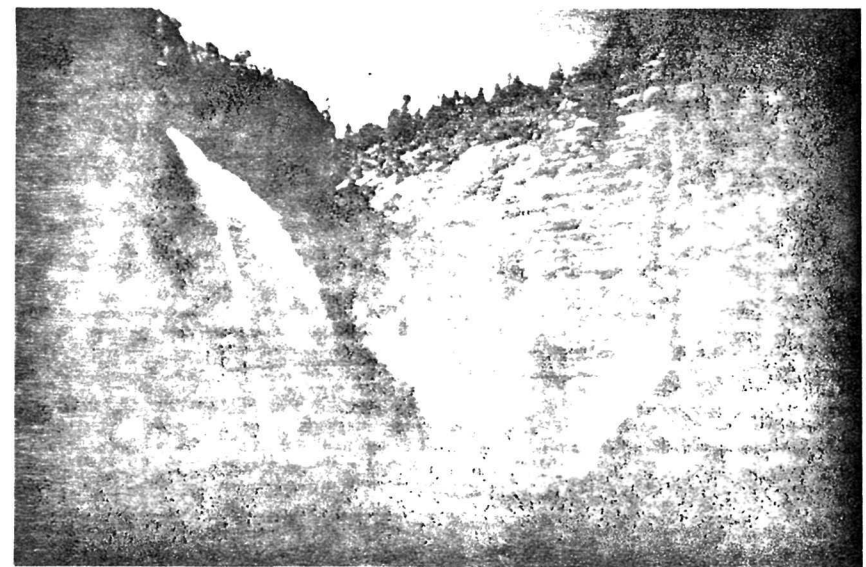
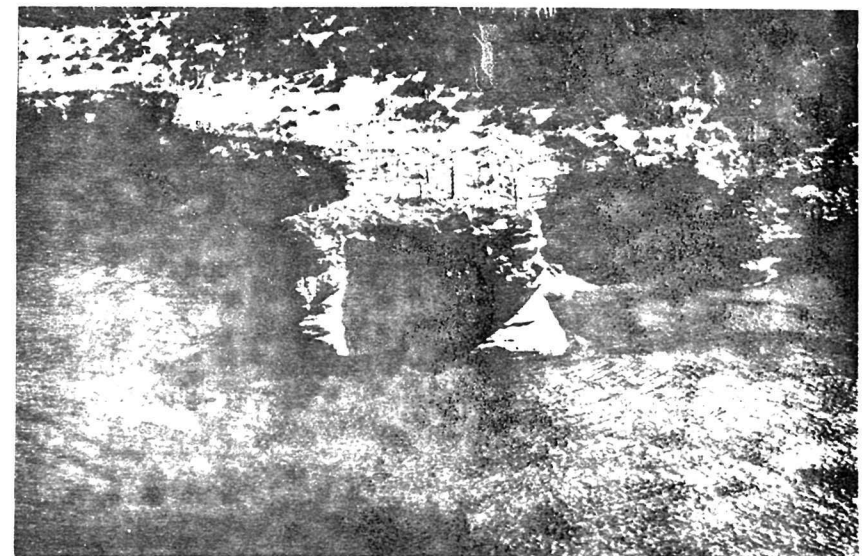
Des vestiges de la dernière glaciation continentale sont omniprésents dans ce secteur; des phénomènes d'érosion glaciaire, telles les stries, les cannelures, les roches polies ainsi que des formes d'accumulation fluvio-glaciaires, telles les eskers, les moraines, les Kames et les Kettles sont fort répandus dans la région.

La végétation, en plus d'être représentative de deux grands systèmes écologiques forestiers, soit la forêt boréale au nord et la forêt mixte des Grands Lacs et du St-Laurent au Sud, laissent voir dans un même milieu plusieurs variations végétales; les principales essences sont représentées dans la partie méridionale par le bouleau blanc, le pin blanc, le bouleau jaune et l'érable à sucre tandis que le sapin baumier, l'épinette noire et l'épinette blanche se concentrent dans la partie septentrionale.

L'hydrographie, de son côté, est un autre élément caractéristique de la région. Un réseau de lacs et de rivières, qui se dégage comme une importante ressource naturelle, se prête exceptionnellement bien au canotage et au camping.

La région de Kipawa constitue également un habitat naturel de première qualité pour plusieurs mammifères terrestres tel l'orignal, le chevreuil, l'ours noir, le loup, le coyote, le renard, le castor, le rat musqué, le vison et le lynx.

En outre, la truite mouchetée, la ouaouaniche, le brochet, la truite de lac et l'achigan à petite bouche qui peuplent les lacs et les rivières demeurent une ressource biophysique significative et fort intéressante dans cette région.



L'île d'Anticosti, localisée à l'embouchure du Golfe St-Laurent, se caractérise autant par ses ressources naturelles que ses valeurs historiques. Les paysages, les reliefs côtiers, les chutes, la mer, la faune, la géologie et l'histoire font de cette région un milieu unique. Les principaux points d'intérêt sont:

Des rivières à saumon, dont la Jupiter, qui possède le meilleur potentiel dans l'Est du continent nord américain

la séquence la plus extensive des dépôts siluriens et ordoviciens au Canada

une chute, la Vauréal, avec ses deux cents pieds de dénivellation

un cheptel de 60 à 70 milles chevreuils considéré comme le plus important dans l'est du Canada

de spectaculaires falaises littorales permettant d'observer une variété de mammifères marins fréquentant le Golfe du St-Laurent

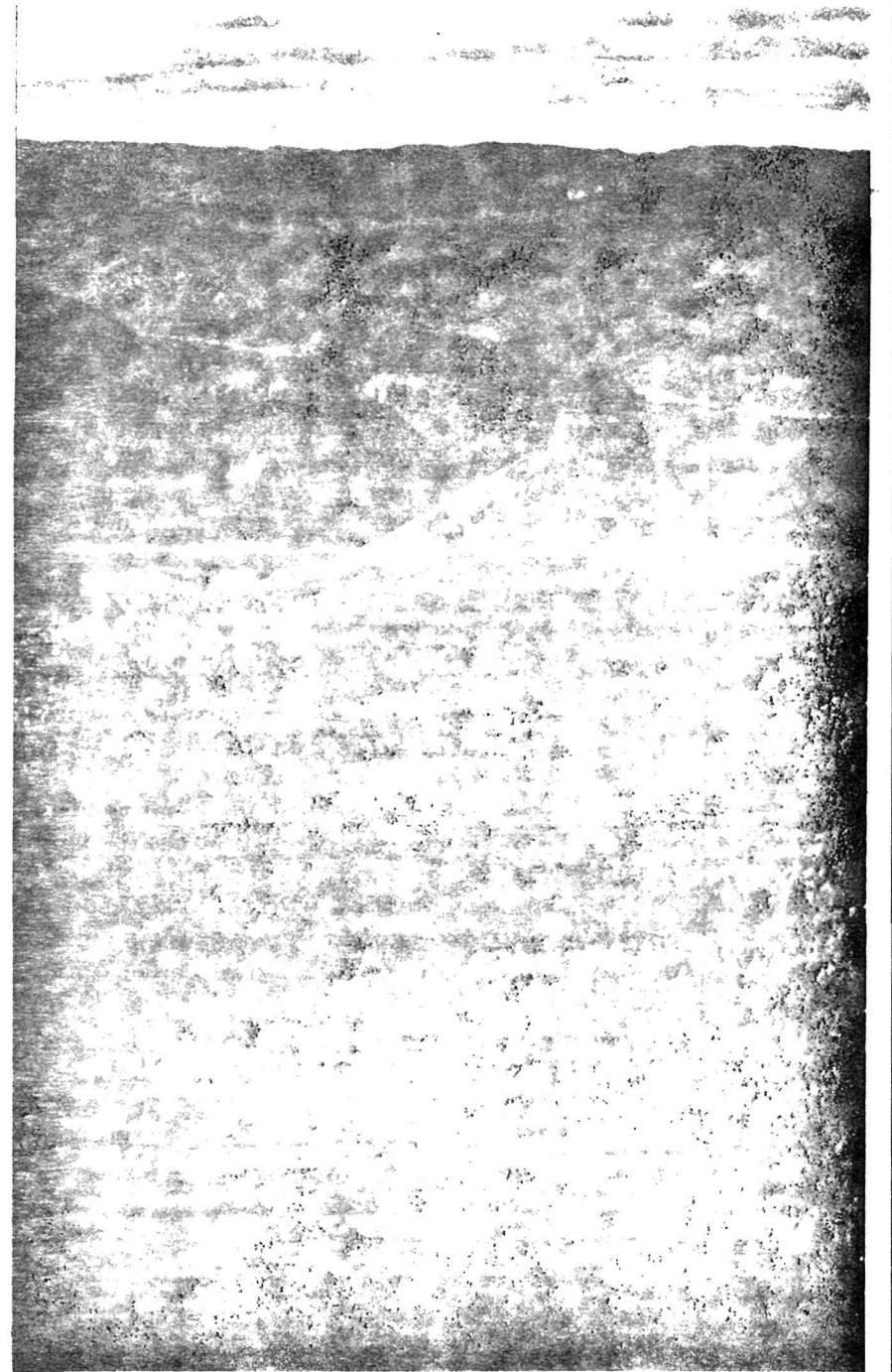
une multiplicité et une diversité d'oiseaux de mer

de majestueuses terrasses post-glaciaires témoins du relèvement du continent et des différents niveaux marins

de nombreux naufrages tout au long des côtes

site historique; des hommes légendaires comme Louis Jolliet, Louis Olivier Gamache, Henri Menier etc... ont marqué l'histoire de cette île.

Suite à l'expropriation de la Compagnie Consolidated Bathurst, le gouvernement de la Province de Québec, depuis janvier 1975, a pris en main la gestion de l'île d'Anticosti pour mettre en valeur les différentes ressources naturelles (forêt, chasse, pêche).



FJORD DU SAGUENAY

Voie de pénétration maritime entre le Golfe du St-Laurent et les Basses Terres du Lac-St-Jean, le Fjord du Saguenay peut être qualifié comme l'un des plus beaux paysages canadiens où se joignent dans un même espace de nombreuses valeurs naturelles, marines et terrestres.

Représentatif et unique à la fois des ressources biophysiques de la région naturelle du précambrien du St-Laurent et des Grands Lacs, le Fjord du Saguenay constitue avec ses falaises et ses escarpements rocheux, d'une hauteur de 1,000 à 1,500 pieds, un attrait de grande importance.

Les imposants caps Trinité et Eternité qui font la renommée de cette région et qui, surajoutés à la diversité de la végétation boréale et de la toundra de montagne, sont un vif exemple de la majestuosité de ce milieu naturel.

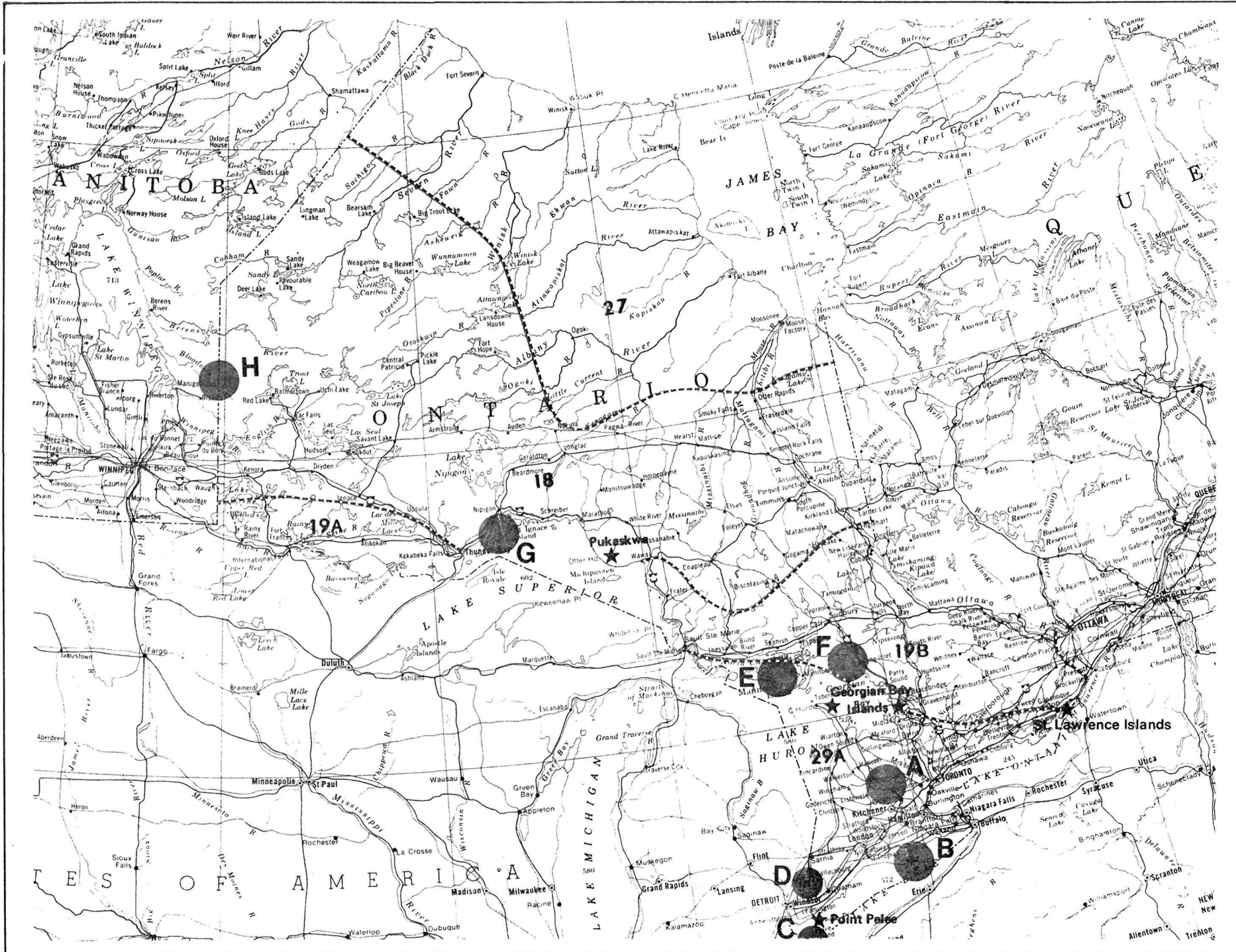
En plus des reliefs spectaculaires, de nombreuses ressources naturelles terrestres, telle la représentativité d'époques géologiques précambrienne et pleistocène, telle la présence de forêts vierges d'érables à sucre, d'ormes blancs, de pins blancs, de pins rouges, de merisier et de sapins baumiers, telle la rareté d'un secteur de pins blancs fossilisés ainsi qu'une des dernières bandes de caribous des bois migrant périodiquement dans ce secteur, sont autant de valeurs qui s'ajoutent à la diversité du milieu.

En outre, les secteurs maritimes du Fjord du Saguenay comprennent les caractéristiques biophysiques suivantes: un secteur représentatif de la région marine du golfe St-Laurent, une zone précieuse des écosystèmes marins liés aux estuaires, aux reliefs des fjords et aux mouvements quotidiens des marées, une aire marine unique que différents océanographes ont appelé "enclave biogéographique arctique" parce que la température et la salinité de l'eau sont typiquement arctiques, tandis que la faune et les espèces invertébrées qui s'y trouvent, sont, pour la plupart, hors de leur aire de distribution usuelle, l'océan arctique; la présence de la jubarte (*Megaptera novae angliae*) du petit rorqual (*Baleoenoptera acutorostrata*) et de la baleine blanche (*Beluga*) sont également des ressources marines importantes qui accroissent la représentativité et l'unicité de cette aire naturelle d'intérêt canadien.

Quant aux valeurs culturelles, il est à souligner que le secteur du fjord du Saguenay demeure l'une des routes les plus importantes utilisées par les autochtones avant l'arrivée des Européens, et, l'une des voies de transport les plus fréquentées au cours de la période historique de la traite des fourrures au Canada.

Ontario

- A – NIAGARA ESCARPMENT
- B – LONG POINT
- C – PEELEE ISLAND
- D – LAKE ST. CLAIR MARSHES
- E – MANITOULIN ISLAND
- F – FRENCH RIVER MOUTH, GEORGIAN BAY
- G – BLACK BAY PENINSULA
- H – ATIKAKI





THE NIAGARA ESCARPMENT **A**

The Niagara Escarpment is an outstanding physiographic feature which stretches from the Niagara River to the northern tip of Bruce Peninsula, and reappears again on Manitoulin Island. It is a northeasterly facing *cuesta* that is by far the greatest topographic break in Ontario produced by differential erosion of the softer layers of rock overlain by a hard cap of Lockport Dolomite.

The escarpment attains an elevation of about 650 feet in the south with a relief of 300 feet. Along the south shore of Georgian Bay it attains an elevation of over 1700 feet, about 1000 feet above the bay.

The area which best combines representation of the Niagara escarpment with other phenomena worthy of consideration in the National Park System is the Bruce Peninsula. The Bruce Peninsula is well known for its outstanding scenic qualities. The rugged eastern coastline in particular exhibits the highest bluffs on Georgian Bay. There are many excellent examples of wave work, such as the famous "flowerpot" formations, caves and abandoned beach ridges. The floral communities of the Bruce also have significance, and the area has been described as the "North American Rendez-vous of plants."

While specific areas of the escarpment other than Bruce Peninsula have not been suggested at this time, the feature is felt to be nationally significant. The Niagara Escarpment Commission is presently studying the escarpment in its entirety as defined by the Niagara Escarpment Planning Area. Detailed reports currently in preparation would permit evaluation of specific areas in relation to the whole. For example, the nationally significant glacial features associated with "Ontario Island" such as drumlins, eskers, and moraines, and the profusion of these features in proximity to the Niagara escarpment presents an excellent opportunity to acquire an area rich in geomorphological history, and high in natural value.

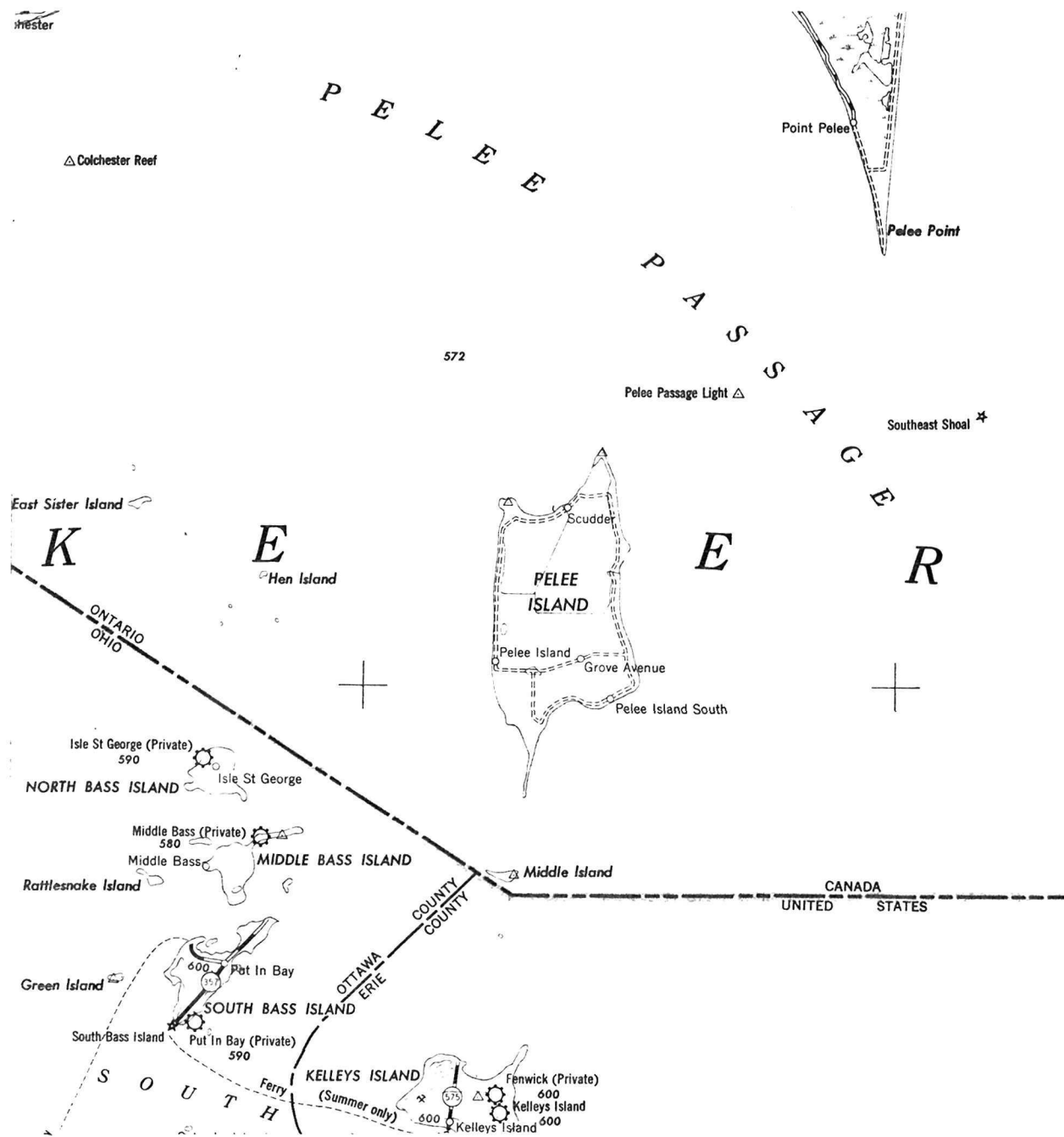
LONG POINT B

Long Point is the largest and most easterly of three large sand spits jutting into Lake Erie from the north shore. The Long Point peninsula represents an outstanding opportunity for wilderness preservation and perpetuation in a unique environment. The fragile sand based ecosystems which have developed here can be duplicated nowhere else in Canada. The marshes and associated shoreline areas represent one of the most important migratory bird resting areas in Ontario. Long Point is the most spectacular feature of shore deposition found in the Great Lakes. It is lengthening at a rate of 25 feet per year. The sand ridges of the Point provide the nesting sites for six species of turtles. Tree species are generally typical of the southern deciduous forest with some elements of the northern hardwood forest.

Long Point incorporates an outstanding stretch of National shoreline plus a unique sand dune and marsh community within a compact area immediately adjacent to one of the most heavily populated areas in Canada.

The Long Point Company presently owns most of Long Point, and manages the land primarily for waterfowl hunting. The area remains essentially in a wilderness state, except for a few shoreline cottages and cabins used for hunting.

The western end of the Point includes a small Provincial Park and a National Wildlife Area managed by the Canadian Wildlife Service.

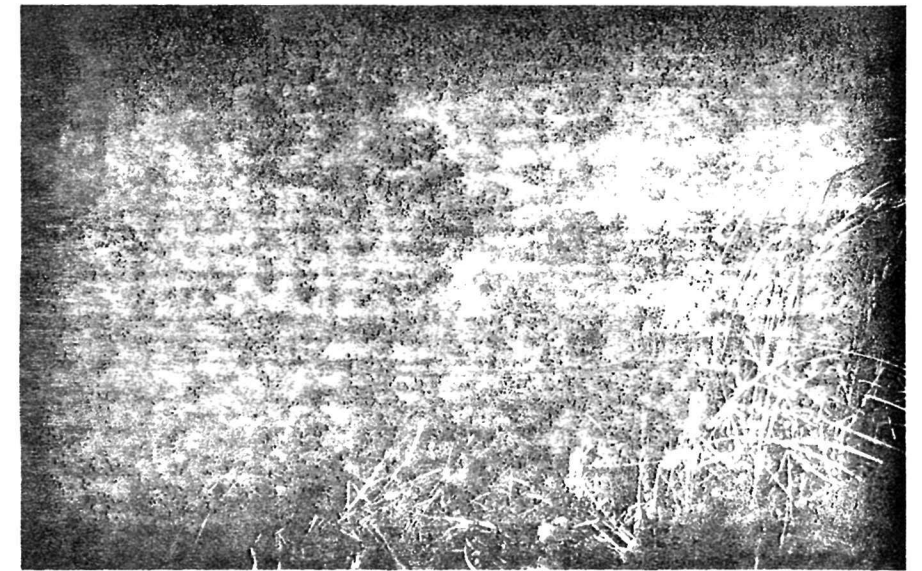
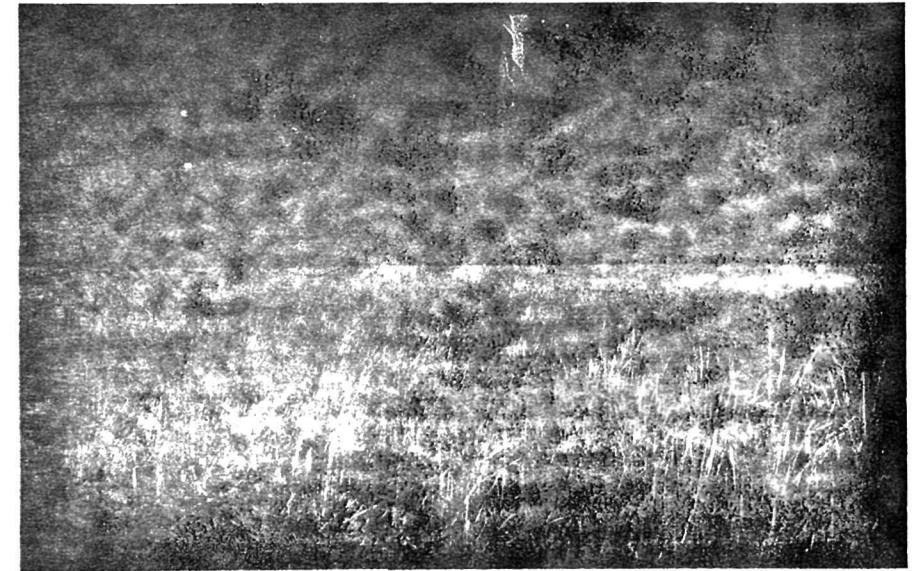


PELEE ISLAND

C

Pelee Island is situated in the Western part of Lake Erie and is approximately 11,000 acres or 17 square miles in extent. It comprises, along with small surrounding islets such as Middle Island and East Sister Island, the southernmost land in Canada.

Pelee Island occupies the northern part of the Lake Erie archipelago, undoubtedly a former land bridge between northern Ohio and Point Pelee. Floral and faunal communities have close affinities with the Ohio - Upper Mississippi Valley. Pelee Island's position in Lake Erie and resultant climate give it an abundance and variety of vegetation, mammals, nesting and migrating birds, reptiles and amphibians, that are unique to Canada. For instance, the Fish Point area contains the largest colony of Black-crowned Night Heron in Ontario. Also, the large number of reptiles has caused Pelee Island to be referred to as the "Galapagos" of Canada. This includes five of Ontario's 16 endangered species such as the Blue Racer, Cricket frog and Lake Erie water snake. The unspoiled sand formations and uncleared remnants of marsh and swamp, furthermore, have great wilderness and interpretive value.



LAKE ST. CLAIR MARSHES

D

The Lake St. Clair Marshes provide a vivid opportunity to see and appreciate unusual life forms beautifully adapted to the half wet - half dry world of the marsh. Two-thirds of the Marshlands located on the Great Lakes System are located on Lake St. Clair.

This area provides the most extensive and highest quality waterfowl habitat in southern Ontario. The marshes are important migration stops, breeding sites and pre-migration staging areas for a spectacular number and variety of migratory birds including geese, ducks, bitterns, herons, coots, gallinules, grebes, rails and shore birds.

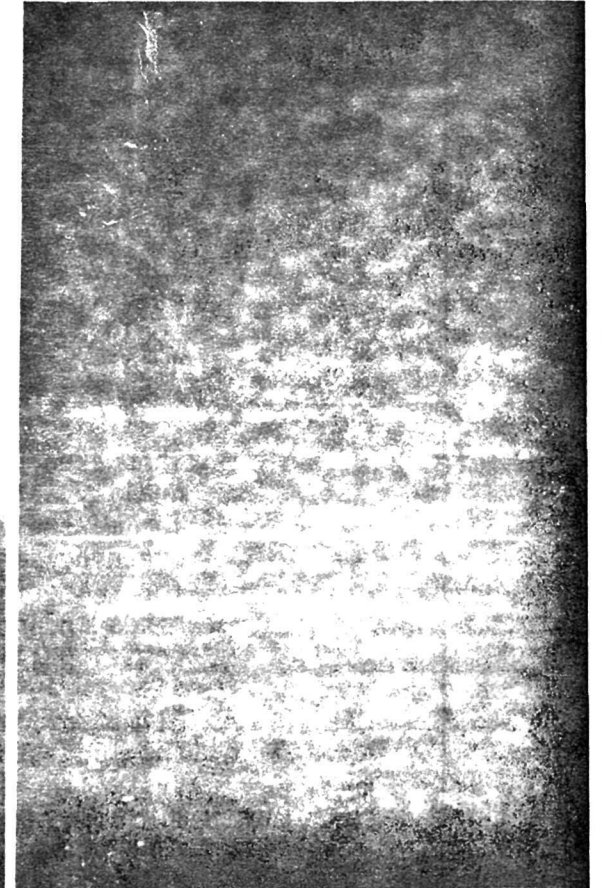
Climatically, the marshes of Lake St. Clair have the longest growing season of any major marsh system in Canada. This factor attracts and holds migrating waterfowl for long periods of time, many of which are more typically found as residents of marshes far to the south of Lake St. Clair and are rare or absent elsewhere in Canada.

Artificial drainage and pumping stations are claiming the marshes for agricultural purposes such that 95% of the original wetlands have disappeared.

Walpole Island Indian Reserve occupies 64 square miles of the St. Clair River Delta on the north shore of the Lake.

Urban sprawl emanating from Detroit has already engulfed the west shore of Lake St. Clair and now the pattern is being repeated in Canada as development proceeds along the lake shore from Windsor.

Large areas of marsh are owned and managed by private clubs for duck hunting.



MANITOULIN ISLAND E

Manitoulin Island lies in the northern part of Lake Huron in line with the Bruce Peninsula. It occupies the northernmost portion of Natural Region 29A and forms part of the Niagara Cuesta, the rim of the great dolomitic saucer that underlies most of southwest Ontario. Manitoulin is said to be the largest fresh water island in the world and contains within itself more than one hundred lakes.

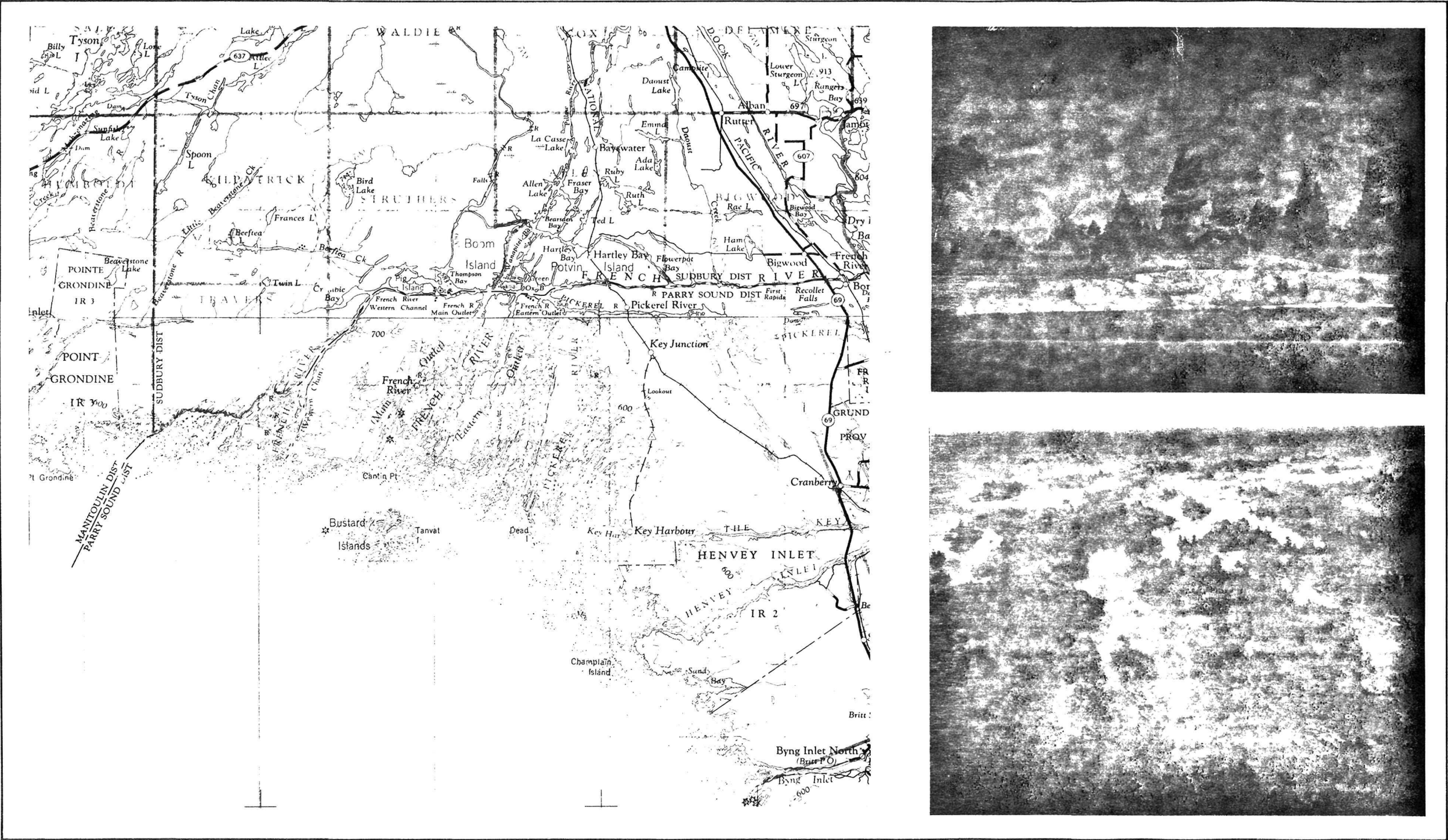
The landscape and natural features, including the surrounding bodies of water, possess outstanding recreational and scenic value.

There is an abundance of wildlife, including the white-tailed deer and black bear and the Island and its associated water bodies provide habitat for a large variety of local and migratory birds.

There is representation of the Niagara Escarpment and the Great Lakes - St. Lawrence Forest land ecosystem, and a number of good beaches greatly enhance the recreational potential of the Island.

An area surrounding Michael Bay and Carter Bay on the southeast shore has a significant sand dune system and interesting floral communities.

An underwater component should be included in any park proposal to take advantage of the excellent water quality for water based recreation and interpretation.

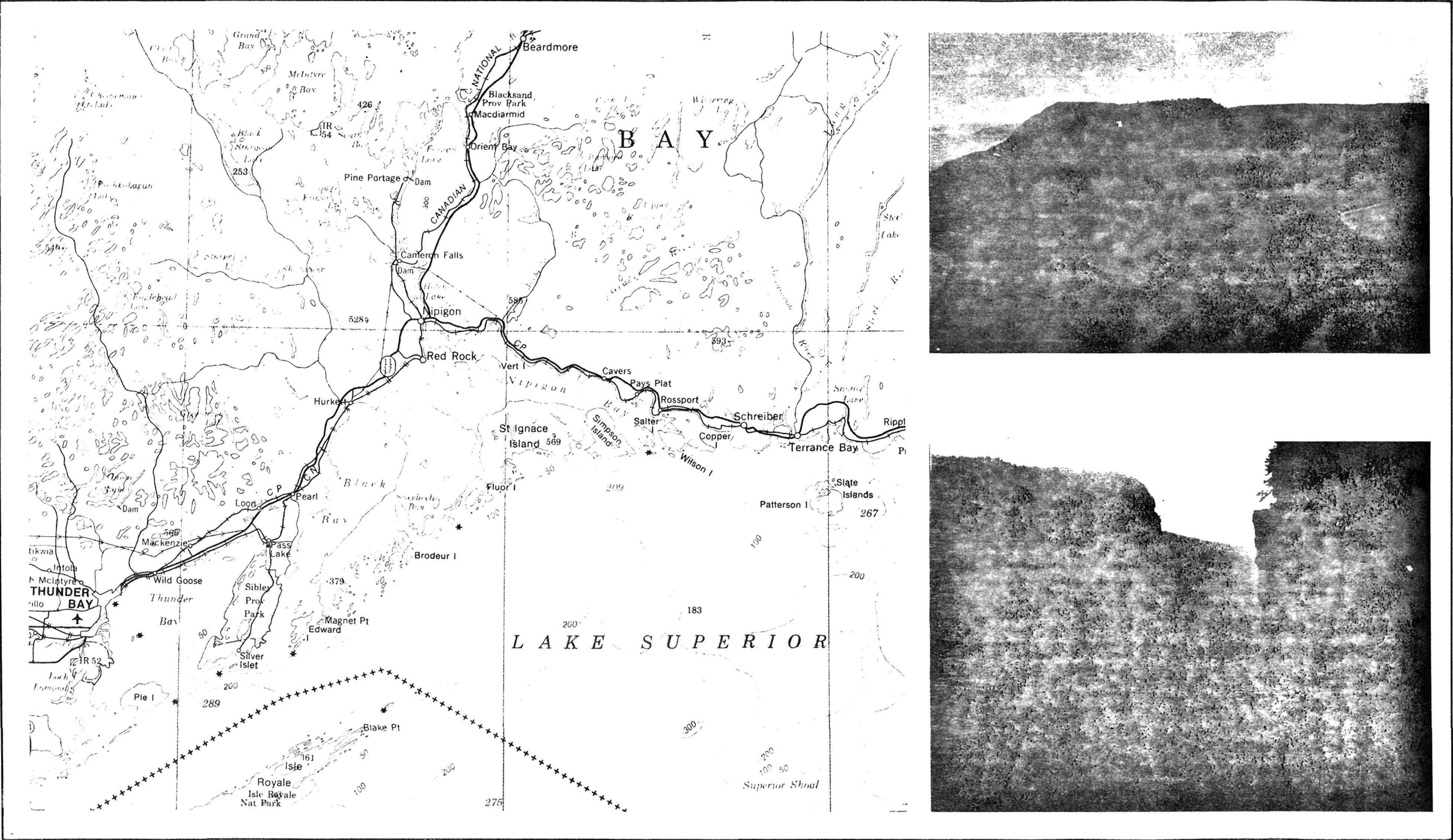


FRENCH RIVER MOUTH, GEORGIAN BAY**F**

Situated at the north end of the thirty thousand islands area of Georgian Bay, the French River mouth is one of the most significant and spectacular stretches of undisturbed Great Lakes shoreline. The area lies near the transition zone between the Canadian shield and the borderlands; the numerous islands consist mainly of bare granites, schists, and gneisses, with pockets of thin soils supporting stands of pine and spruce. The area also includes examples of the Great Lakes - St. Lawrence transitional forest.

There is strong potential for water recreation, white water canoeing along the French River, power boating amongst the islands, and yachting further out in Georgian Bay. The whole area provides some of the best fishing in Ontario for pickerel, northern pike, and small-mouthed bass.

The area represents one of the more significant undisturbed natural areas in Southern Ontario located along an historic voyageur and exploration water route.



BLACK BAY PENINSULA**G**

This area of the Lake Superior shoreline is the only major piece of undeveloped shore that does not have the Trans-Canada highway cutting through it, except for the Pukaskwa area. Its vegetation, bird life and physiography, is unusual and varied. The area's recreational use potential is high.

The complete unit including Thompson Island, Pie Island, Sibley Peninsula, Edward Island, Black Bay Peninsula, Fluor Island, St. Ignace Island, Simpson Island, Salter Island, Wilson Island, Copper Island, the Slate Islands and all the adjacent smaller islands could make one of the most outstanding National Parks in Canada. The Sleeping Giant alone warrants National Landmark status and has recently been incorporated (partially) in Sibley Provincial Park.

Some of the more interesting features associated with the area include:

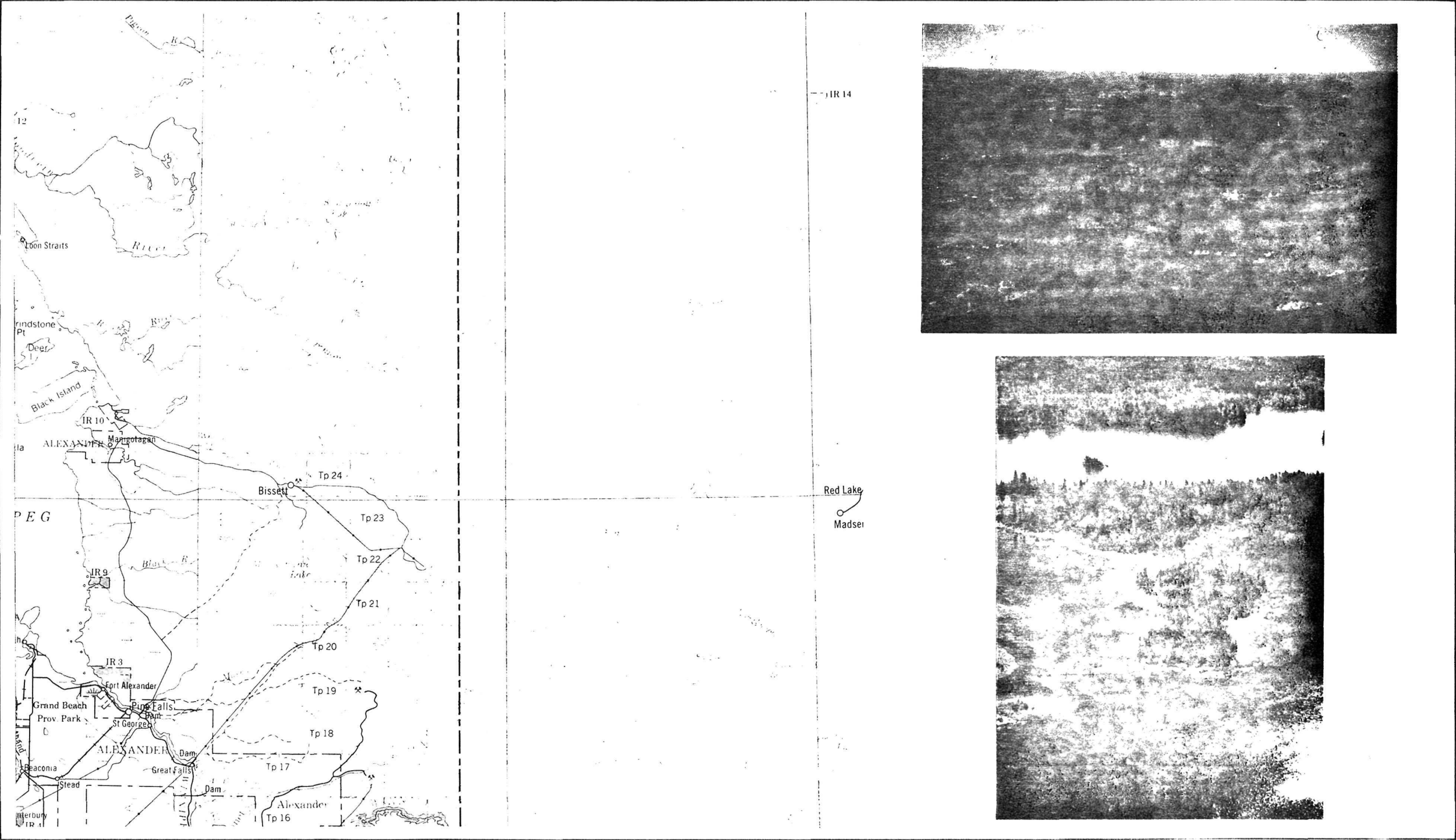
Rugged, extremely scenic "Shield" Peninsula almost completely surrounded by Lake Superior;

Isolated "Shield" Lakes high above Lake Superior;

Some of the Islands associated with the peninsula are inhabited by remnant caribou population;

Unusual flora and fauna; and

Quimet Canyon nearby, on the mainland (500 feet deep).



The headwaters of the Bloodvein River encompass a myriad of lakes in the region lying immediately east of the Ontario/Manitoba border and west of Red Lake, Ontario.

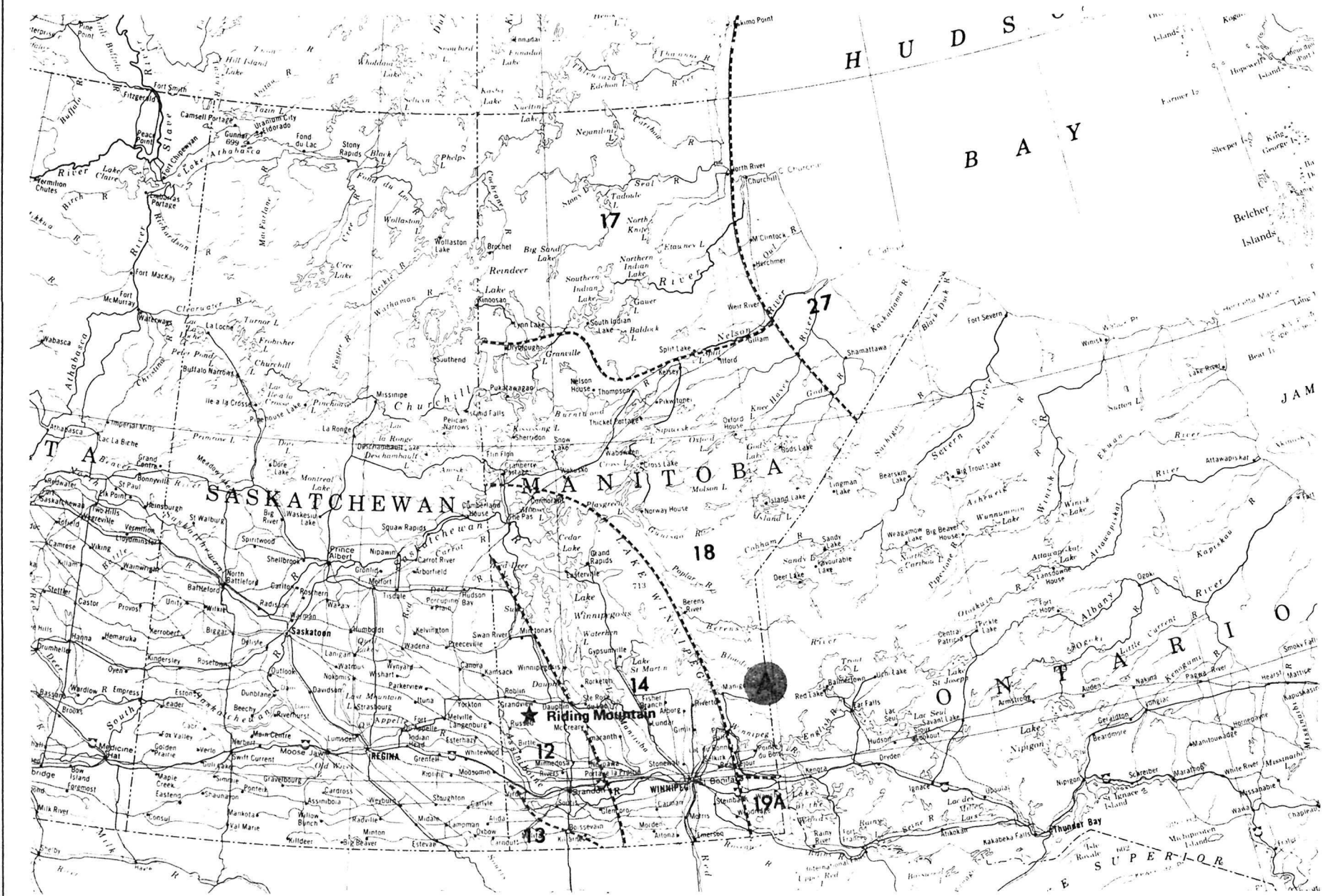
The river then flows for 150 miles in a westerly direction where it drains into Lake Winnipeg. Its course takes it through Natural Region 18 - the Central Boreal Uplands - part of the Canadian Shield. This area represents one of the most outstanding examples of lake and stream characteristics in Canada. The headwaters region, in particular, is typified by long and narrow lakes connected by short stretches of river, commonly containing intense sets of rapids or waterfalls.

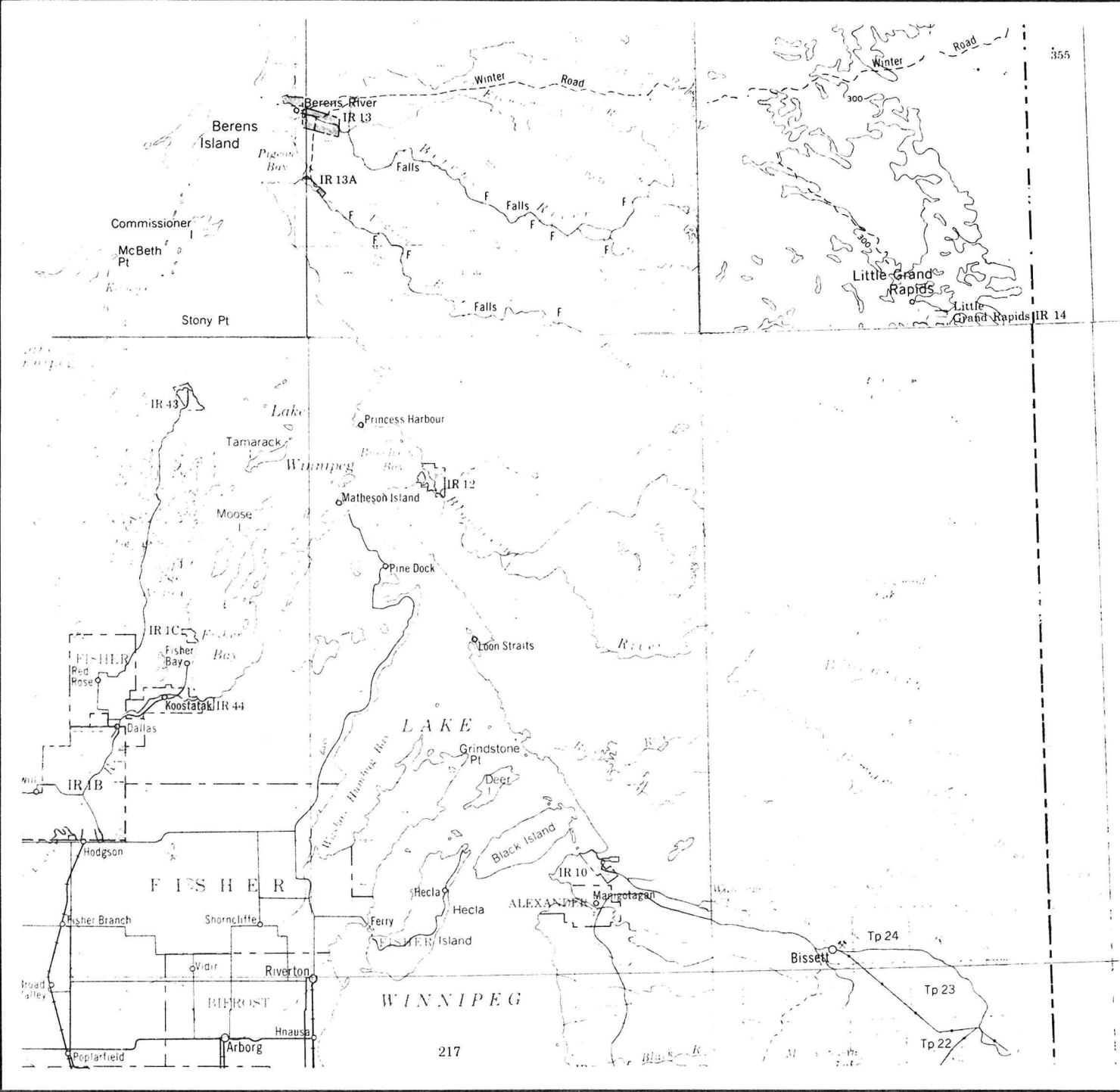
The region possesses high scenic quality, and an abundance of wildlife representative of the Boreal Forest. Occasionally Indian Pictographs may be found, remnants of ancient Indian cultures which once inhabited the area.

The Bloodvein, and several other rivers and lakes of the region present some of the best canoeing and wilderness recreation opportunities in Canada.

Manitoba

A BLOODVEIN RIVER AREA





BLOODVEIN RIVER A

The headwaters of the Bloodvein River encompass a myriad of lakes in the region lying immediately east of the Ontario/Manitoba border and west of Red Lake, Ontario.

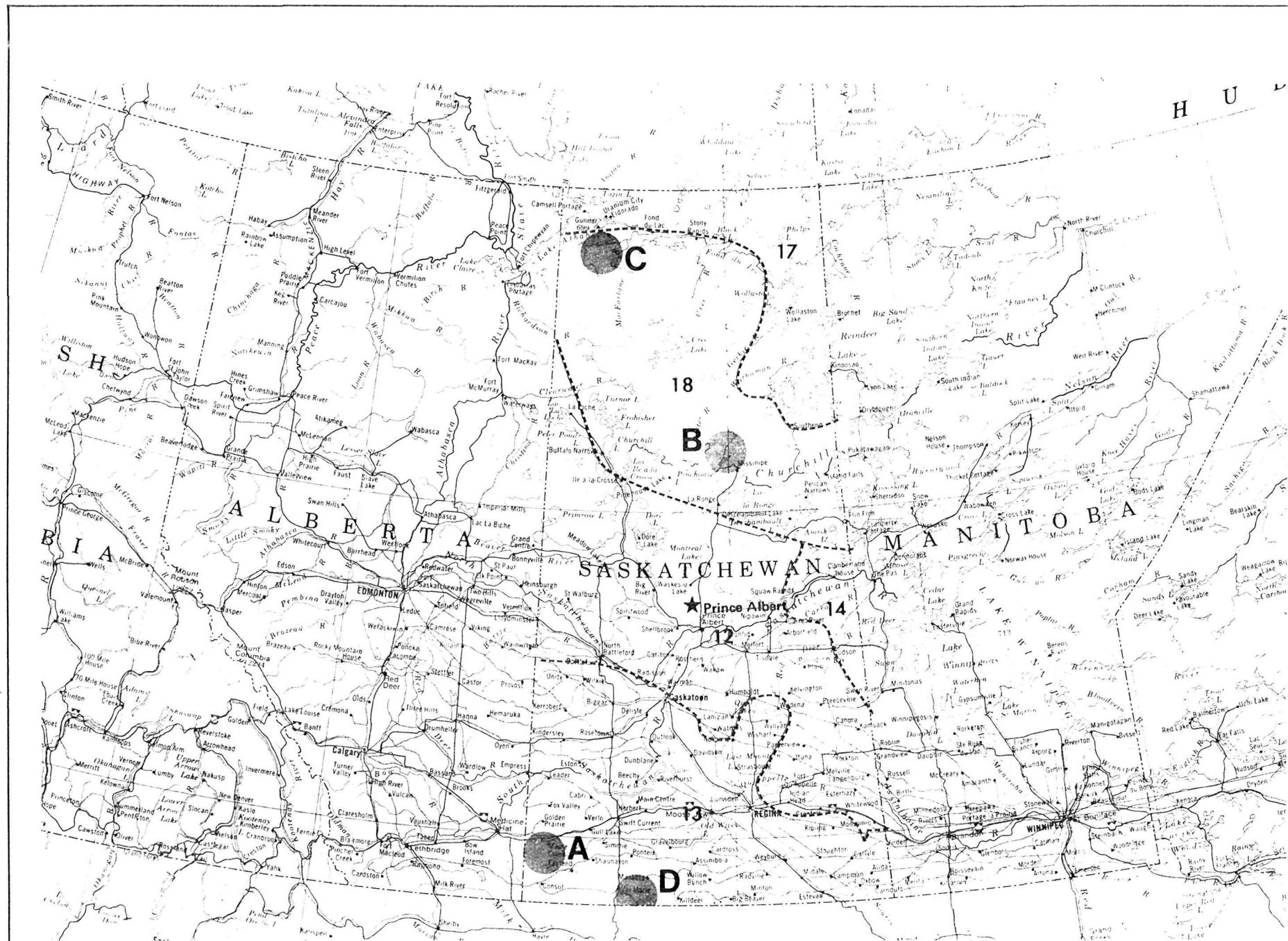
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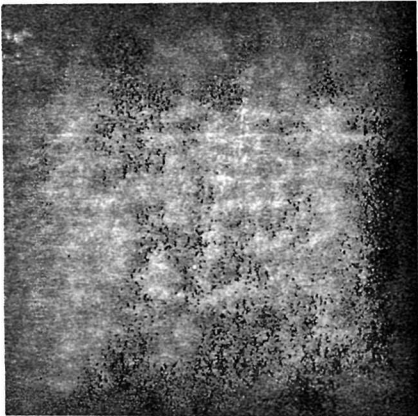
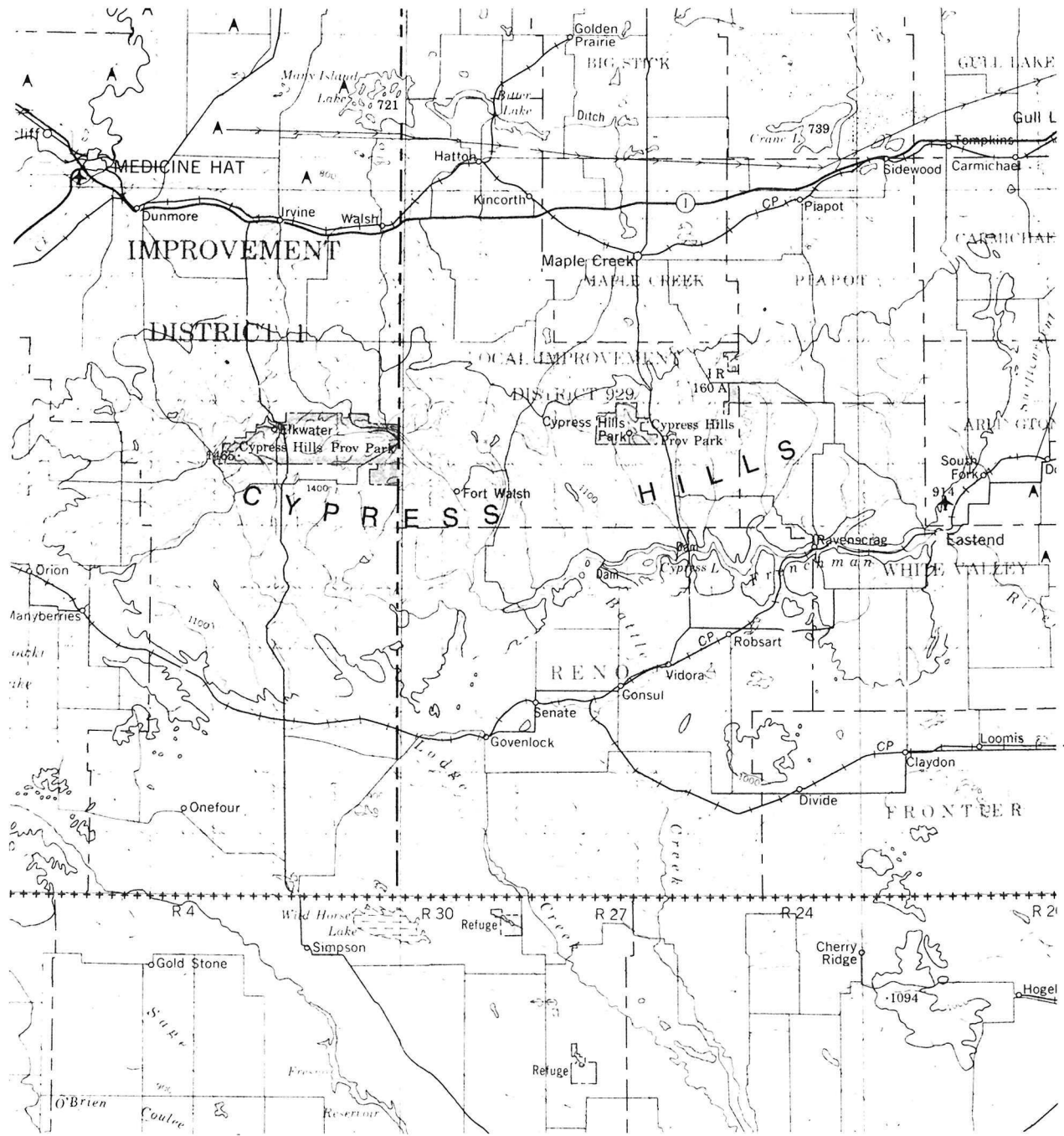
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Saskatchewan

- A – CYPRESS HILLS
- B – CHURCHILL RIVER
- C – ATHABASCA SAND DUNES
- D – GRASSLANDS





CYPRESS HILLS A

Straddling the Alberta-Saskatchewan border, 30 miles north of the international boundary, the treeless plain is interrupted by the intriguing Cypress Hills, a flat-topped plateau which rises 2,500 feet above the surrounding area. The summit of the Cypress Hills, which is known as the "Head of the Mountain", reaches a maximum elevation of 4,810 feet, the highest Canadian elevation between Labrador and the Rocky Mountains.

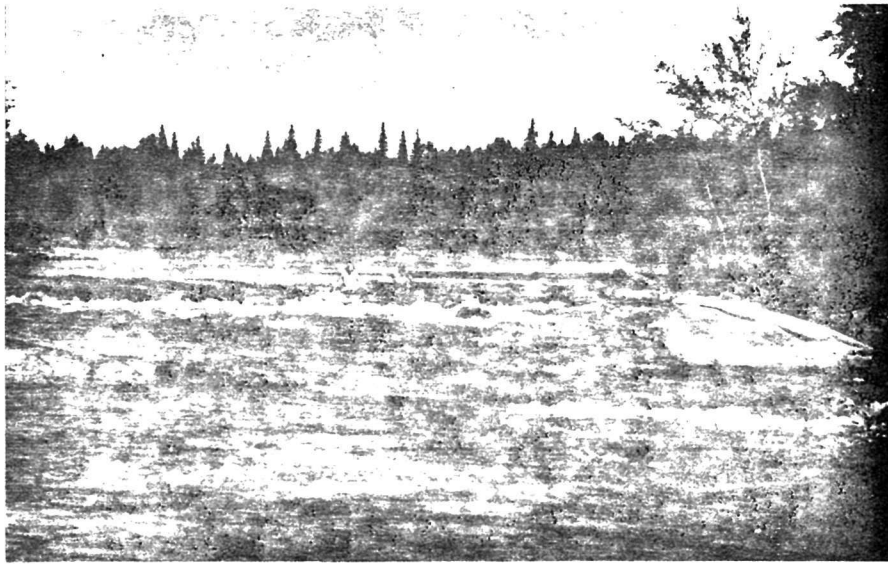
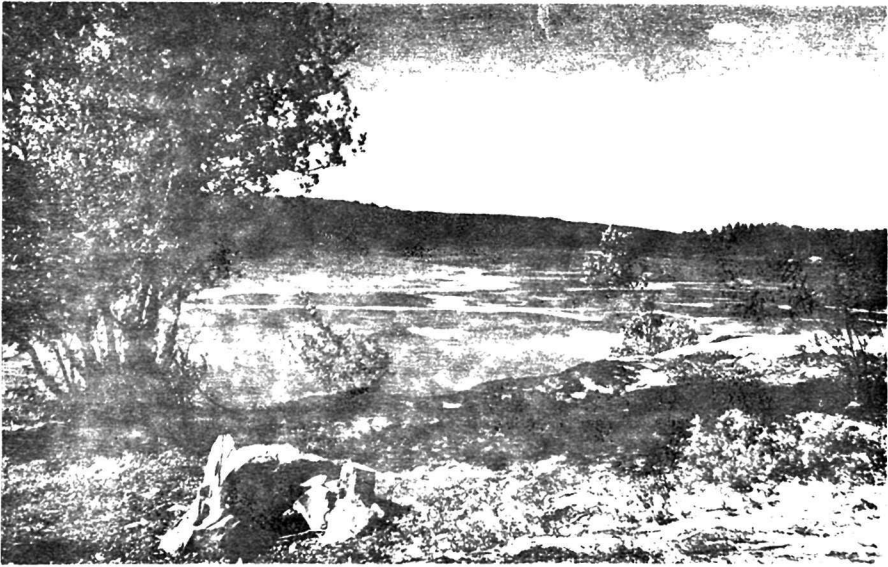
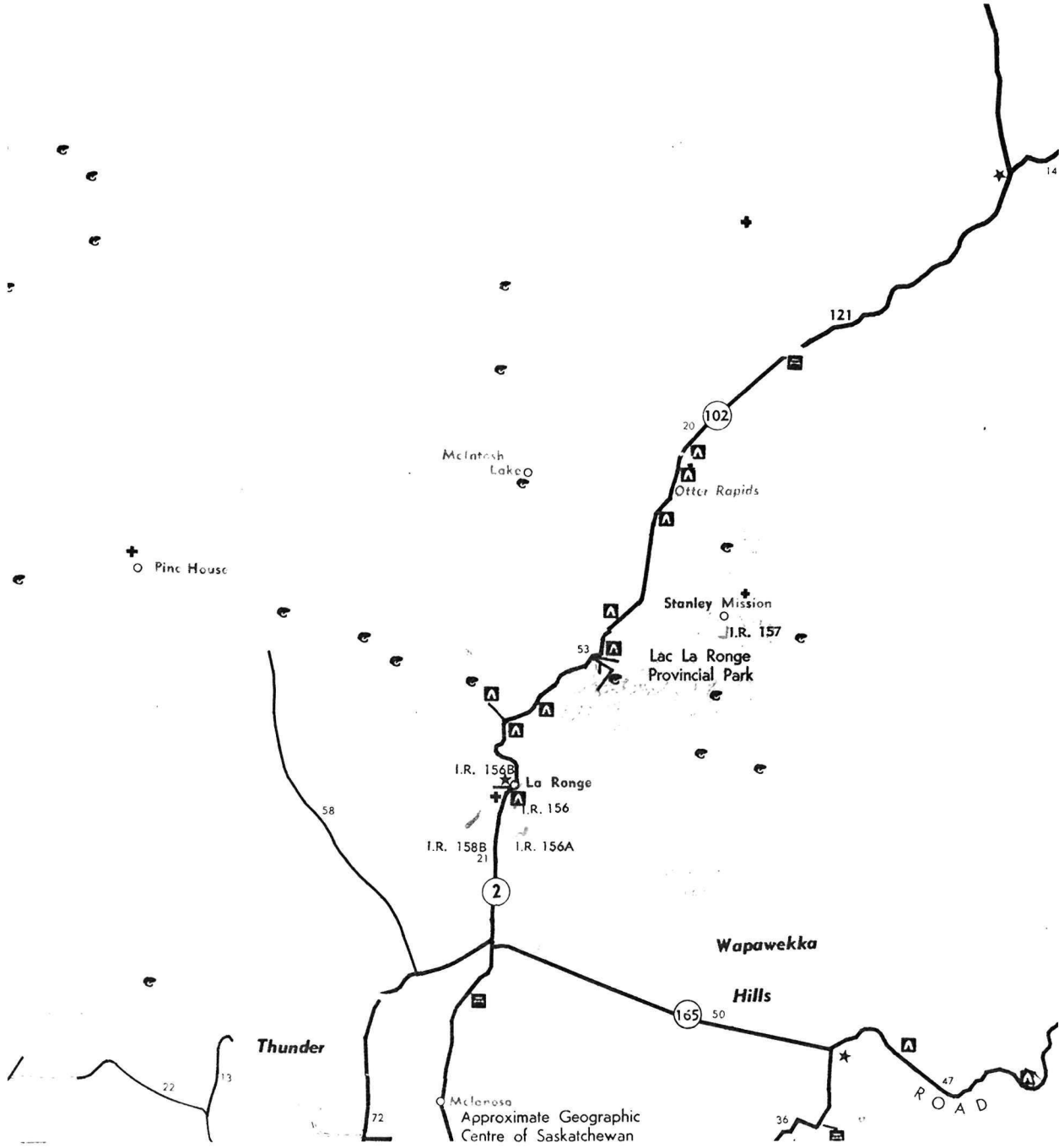
Their higher elevation results in a higher precipitation and lower temperatures than in the surrounding area, and the development of a biota which contrasts remarkably with the Canadian Plains flora and fauna. The Mixed Prairie association of the Prairie level is replaced by the more luxuriant Fescue grassland association as one proceeds upward, which in turn gives way to a Lodgepole Pine forest and other montane floral elements at the higher elevations of the hills. Because of the diversity of habitat, the area supports a large variety of mammals and birds. Of particular biogeographical interest are the Audubon Warbler, Oregon Junco, and MacGillivray's Warbler which normally breed in the mountain region of western North America. The presence of the breeding Trumpeter Swans in the Cypress Hills is significant for the bird was once near extinction.

The Cypress Hills are also geologically unique. An 80 square mile nunatak at the west end of the plateau stood above the Pleistocene ice sheet and remained unchanged by glaciation. The Cypress Hills geological formation, a conglomerate of rounded pebbles and cobbles, caps the hills and has since been eroded into bizarre-shaped landforms. It is the only area in Canada where the fossils of mammals which lived during the Oligocene epoch, 40,000,000 years ago, have been found.

There are few areas in Canada which contain the diversity of scenic, natural and historical attributes of the Cypress Hills. They are truly "a perfect oasis in the desert...", as Captain John Palliser wrote in his journal on July 28th, 1859.

The recently commemorated Fort Walsh National Historic Park affords protection to the area's historical values.

Cypress Hills Provincial Parks in Saskatchewan and Alberta provide some protection to the area's natural attributes.



CHURCHILL RIVER B

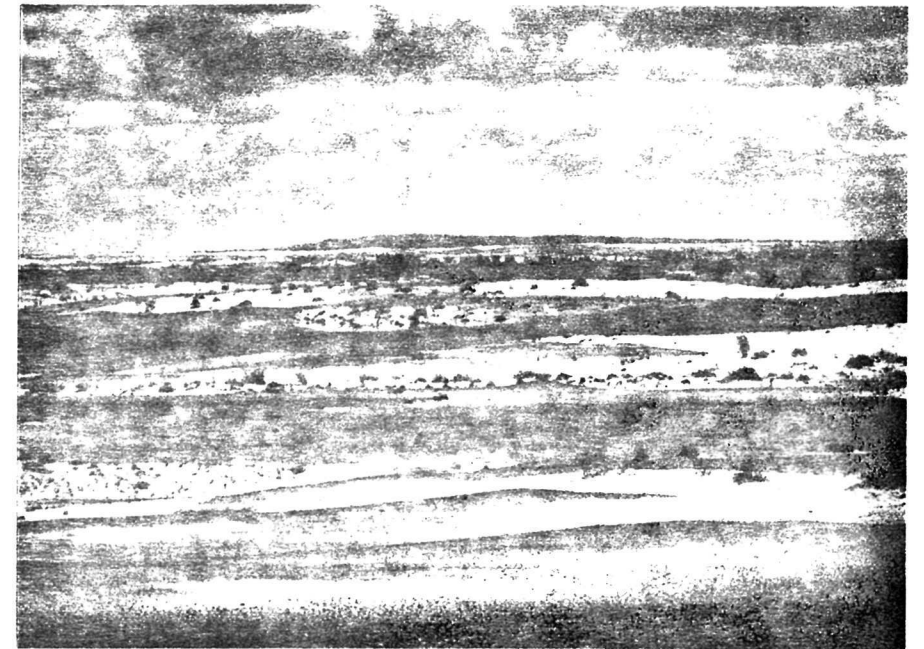
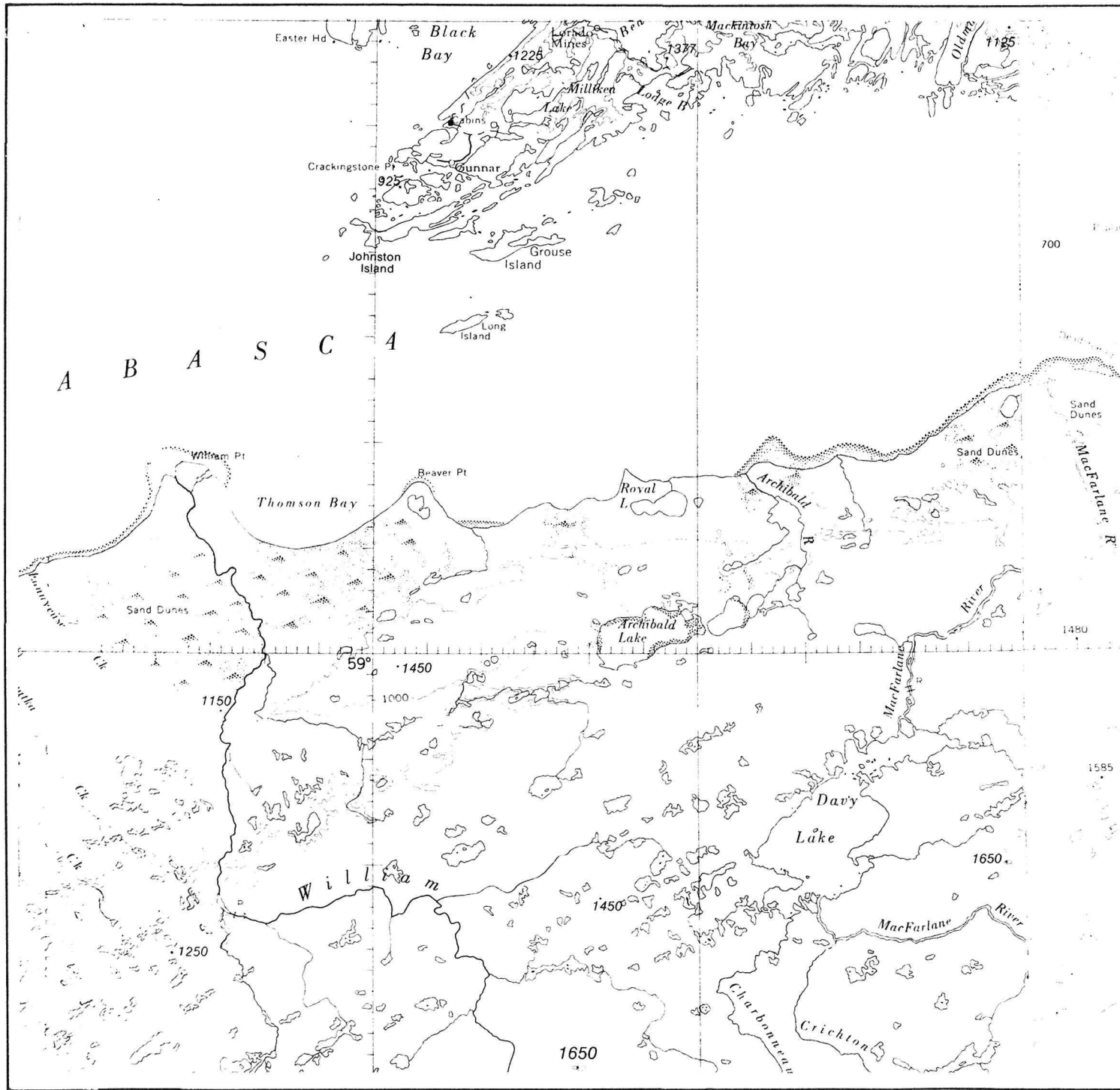
The forested Precambrian lake country between Sandfly Lake and Otter Rapids along the Churchill River, approximately 50 miles north of the community of La Ronge, has been a place of unique value and inspiration for the Woodland Cree Indians during prehistoric times, the Voyageur and explorers of the Fur Trade, and, more recently, for those who have found interest and enjoyment in its natural beauty and messages from the past.

The Voyageur may be gone but the land and waters of the Churchill River are still with us, altered in a few places, essentially the same in most. Among the unique and valued resources are the aboriginal rock paintings or pictograph sites, some of which are still considered "sacred places" to the Native people of the area. Few canoeists who travelled the Churchill, in the past or recently, fail to visit these unique "paddle-in" art galleries. Of special interest is the pictograph site below Silent Rapids, noted almost 200 years ago by Alexander MacKenzie in his "Voyages", and regarded as one of the oldest documented rock paintings in Canada.

Historically, the English River, the name given to the Churchill by the Canadians during the Fur Trade, was the route through which all the Voyageur traffic passed: furs to the east, and goods, explorers and missionaries to the west. Even today the names of the lakes and portages are still unchanged from this chapter of Canadian history.

As expected, this historic water route provides some of the most exciting and diverse canoeing possibilities. In the words of Eric W. Morse, a leading Canadian historian, "The Churchill, in the journals of its early travellers and in the memory of those who have more recently travelled it, stands out as one of the best canoe rivers on the whole route..."

The area's Precambrian Shield landscape is spectacular, with the large number of rocky islands providing an almost unlimited number of natural campsites. These islands and adjacent shorelands are also prime habitat for the bald eagle, listed as a rare and endangered species in the IUCN Red Data Book. Also of biogeographical interest are the sightings of the rare woodland caribou, the larger and least-known of the two Rangifer subspecies found in Canada.



ATHABASCA SAND DUNES

C

Located along the south shore of Lake Athabasca between McFarlane River and Ennuyeuse Creek in Northern Saskatchewan, the Athabasca sand dune area is a unique component in Canada's natural environment. The extent of surface sand deposits is approximately 600 square miles. Their primary features are large open dune fields of various types which do not occur elsewhere in the country, extensive stabilized dunes, unique topography, vegetation and scenery in a setting unaltered by man, and rich wildlife.

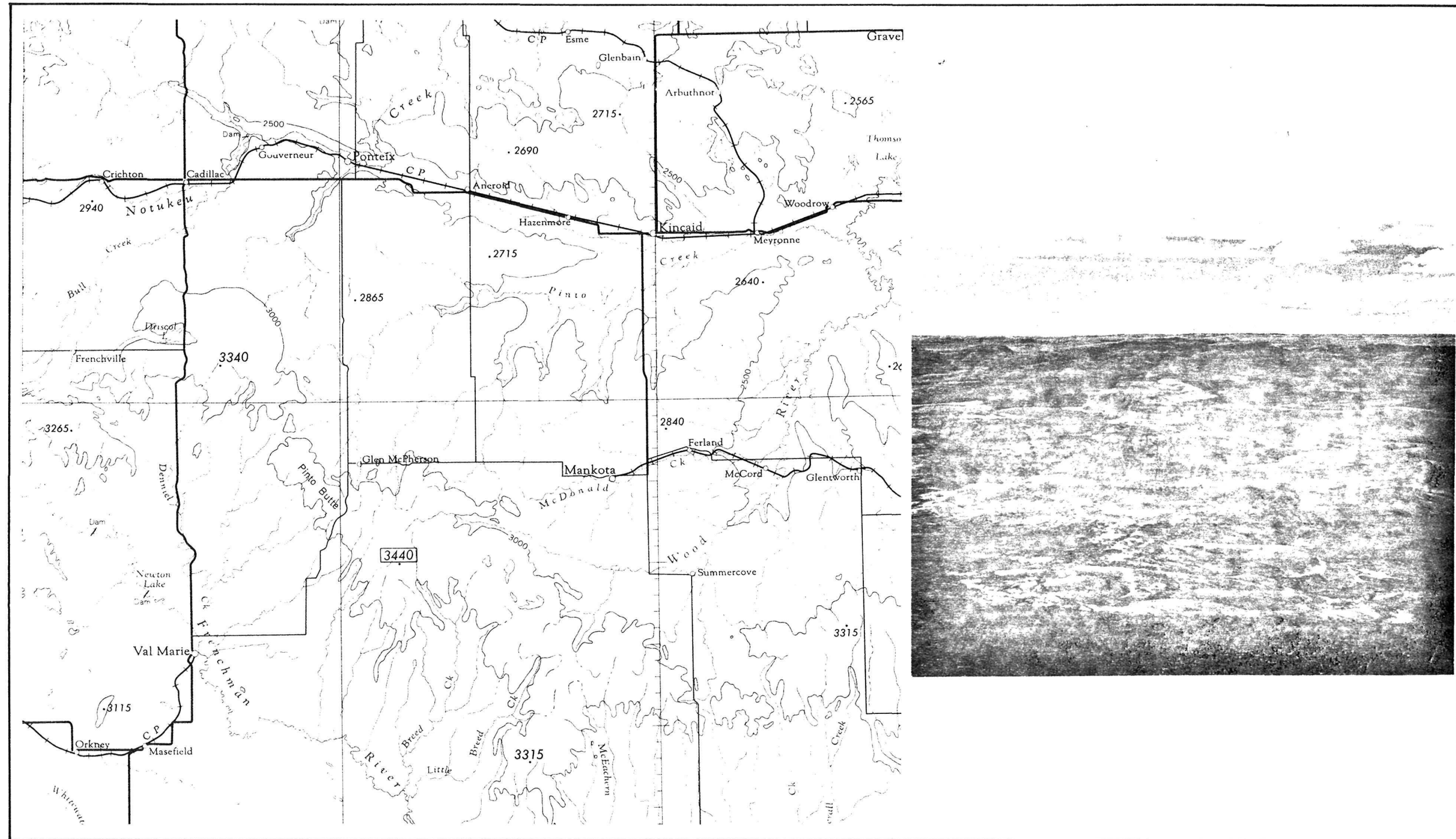
The Athabaskan sand dunes are dynamic landscape features undergoing constant changes as a result of the interaction between wind, sand and vegetation. For this reason the area is of considerable scientific and educational interest.

The flora of the dunes is highly unusual. Out of the 40 taxa identified, 12 are endemic to the active sands and several others represent the only species recorded in Saskatchewan. The high incidence of endemism is believed to indicate a rapid rate of evolutionary changes.

The area is rich in wildlife. Wolf, moose and brown bear are common and birdlife consisting of rare species and sub-arctic breeding populations are particularly noteworthy.

Archaeological remains in the form of stone axes, flint chips and firestones of early times have been uncovered by the moving sands.

The sand dunes' scenic values, in combination with the extensive shore of Lake Athabasca, two rivers and several lakes offer recreational opportunities.



The Val Marie - Killdeer area of southern Saskatchewan is truly interesting. In addition to the mixed prairie vegetation there exists a nearly complete sample of prairie fauna. Species ranging from the common antelope and Richardson's ground squirrel or "gopher" to the rare and endangered prairie falcon, ferruginous hawk and sage grouse can be found here. The black-tailed prairie dog also resides within the boundaries of the proposed park. Their colonies can be observed along the Frenchman River Valley, the only place in Canada where this prairie rodent can be observed in its natural habitat.

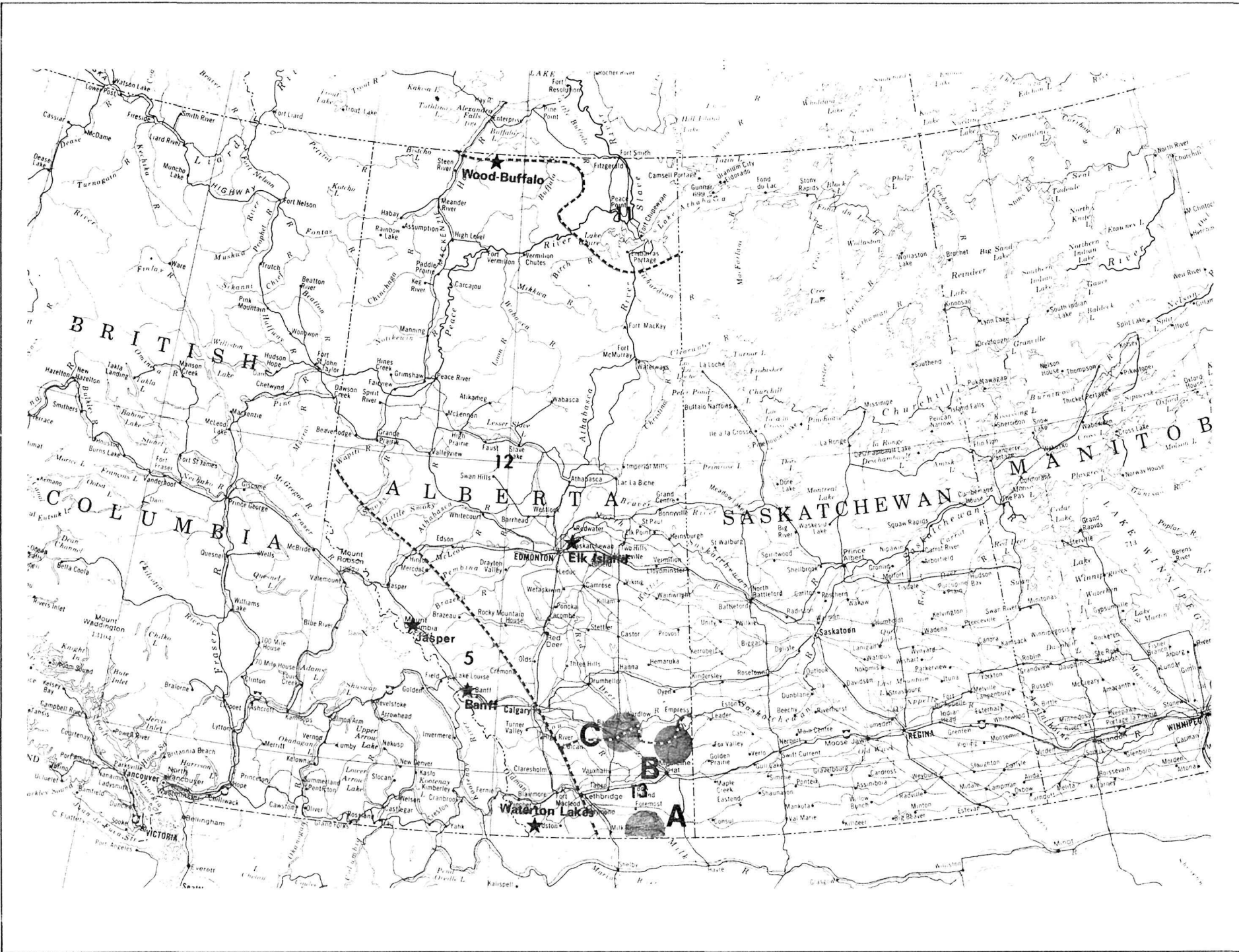
The following landscape is broken by the bizarre shaped landforms of the Killdeer badlands. It was here where Sir George Mercier Dawson made the first recorded discovery of dinosaur remains in 1874 while serving as geologist and naturalist to Her Majesty's North American Boundary Commission. There is also a "sinking hill", a fault-like formation 200 feet wide and 35 feet deep which is allegedly sinking at a rate of one foot per year.

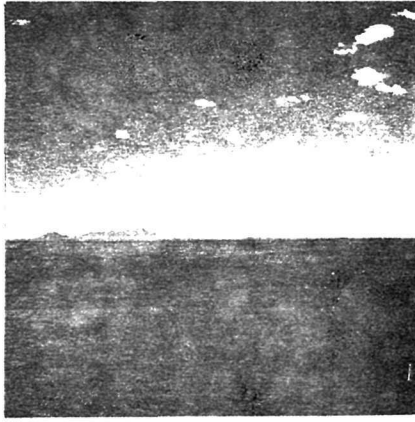
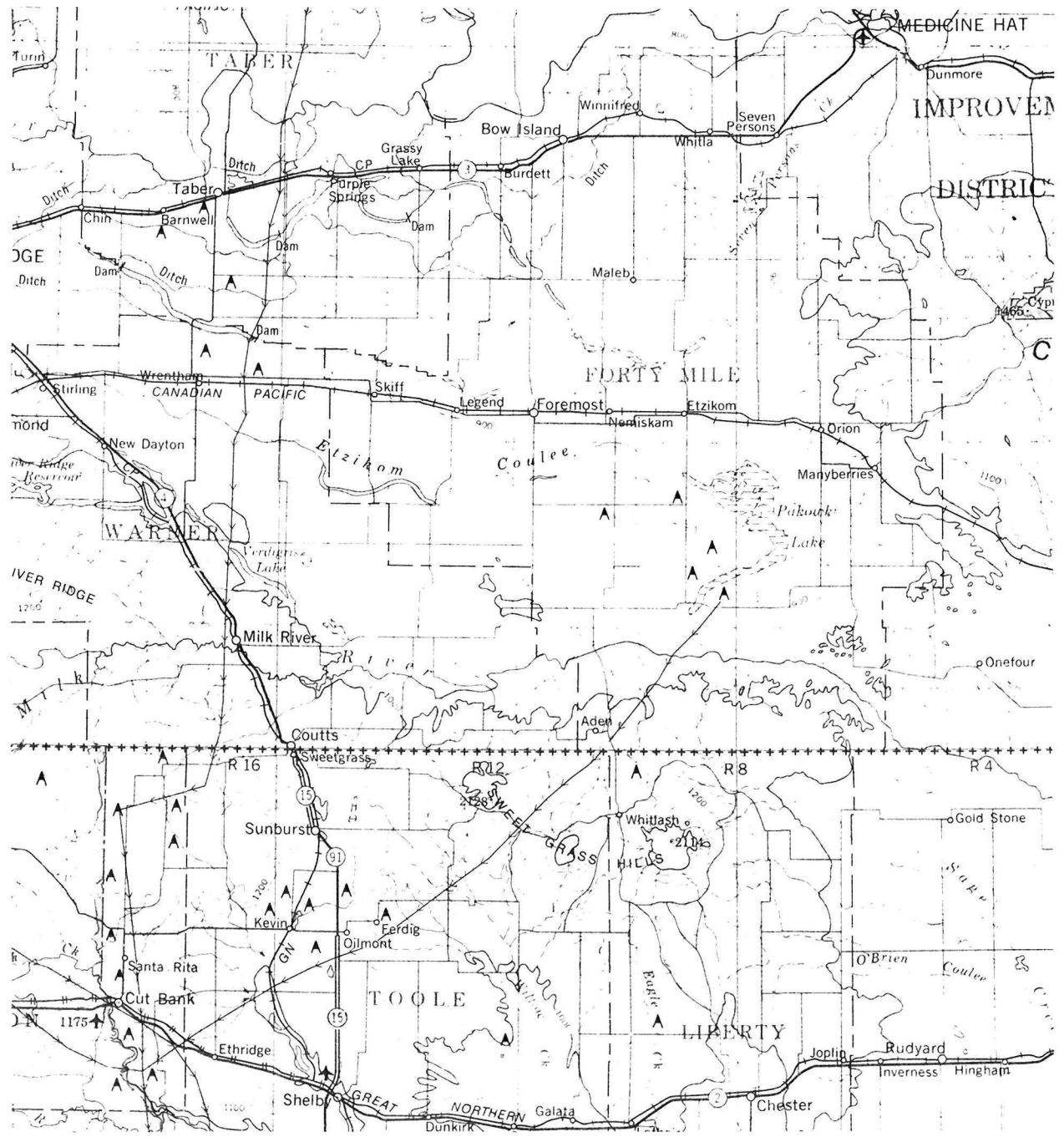
The re-establishment of the plains bison, the black-footed ferret which depends on the prairie dog colonies for both shelter and food, and the kit fox, is a likelihood as the proposed park is located within the historical range distribution of these mammals.

The area's history is similarly interesting and colourful. Remnant teepee rings, projectile points or "arrow-heads" and other artifacts indicate that the Plains Indians roamed here in search of bison. It was also a favourite bison hunting area for the nomadic Metis during the early days of the Red River settlement. Sitting Bull and his Sioux followers took refuge in this general area from U.S. Army retaliations after the Battle of the Little-Big Horn in 1876. Also associated with the area's history are the Wood Mountain N.W.M.P. Post, the Jean Louis Legare trail and the Fort Walsh-Wood Mountain trail which are located north of the proposed Killdeer park component. As the area developed, cattle ranching and homesteading followed. From the beginning homesteaders found it extremely difficult, if not impossible to survive, consequently the homesteading gradually faded into the past whereas the ranching operations have continued to flourish and have added much to the local history of the area.

Alberta

- A – MILK RIVER
- B – SUFFIELD
- C – RED DEER RIVER BADLANDS





The Milk River area borders the Canada-U.S. boundary in southeastern Alberta. The area can be briefly described as a gently rolling prairie, which is deeply incised by the valley of the Milk River and its tributaries.

The "Canyon of the Milk River", as the area is often referred to, encompasses a diversity of outstanding natural and historical attributes. The upper prairie level is dominated by spear, wheat, June and blue grama grasses, and represents one of the best remnants of the Mixed Prairie grassland association in Canada. Faunal species typical of the Canadian Plains are common throughout this habitat, such as the pronghorn antelope, coyote, prairie rattlesnake and Richardson's ground squirrel or "gopher".

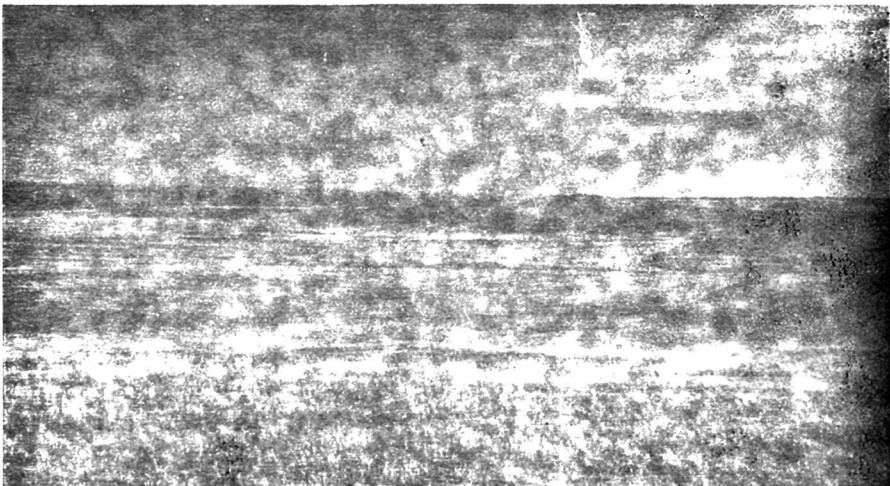
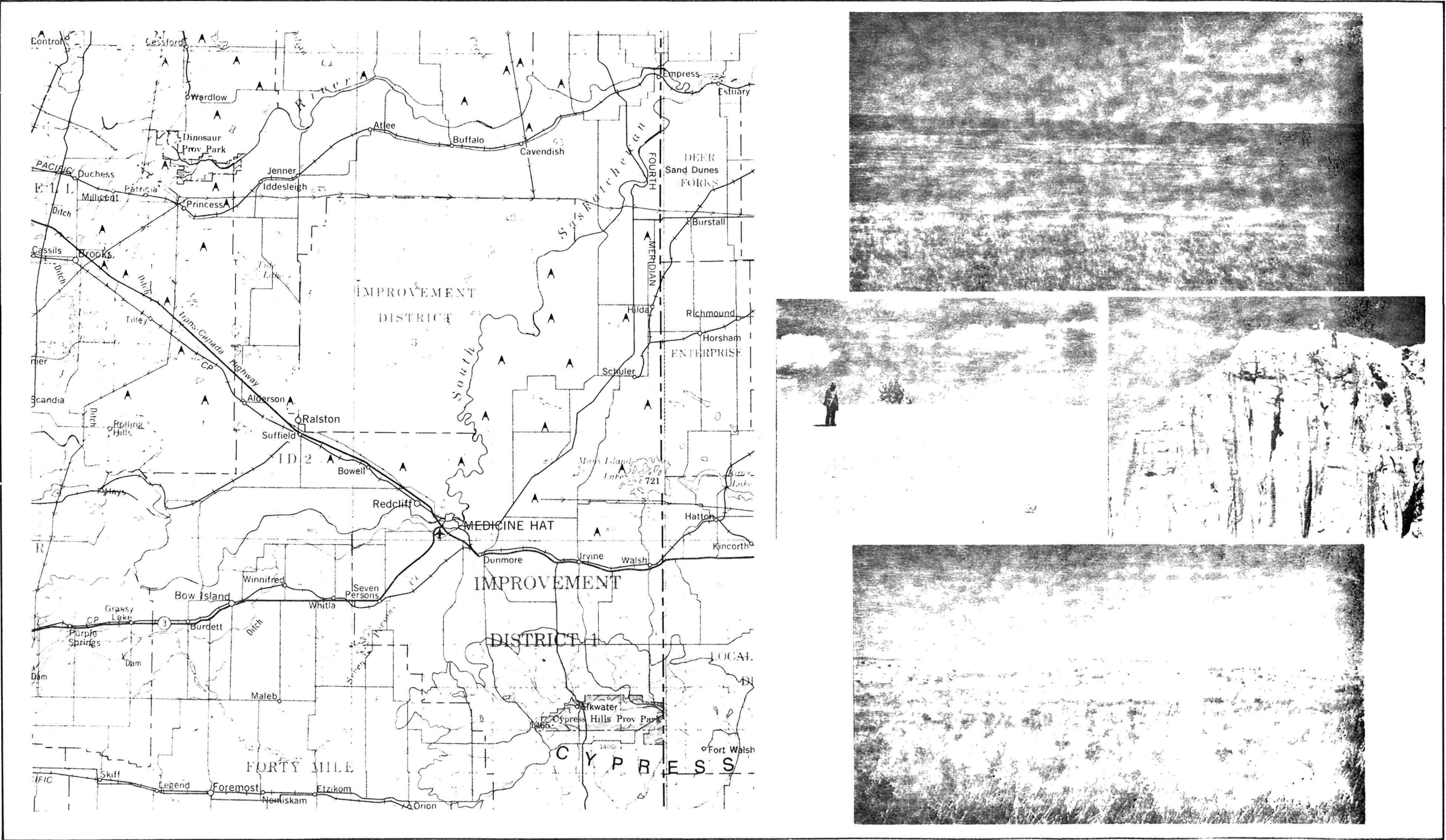
The wide alluvial valley floor is dominated by sagebrush, winterfat and greasewood. It is here that the Yucca plant and the sagebrush of the Great Basin, *Artemis tridentata*, are found, their only known occurrence in Canada. Cotton trees, willows and rose bushes grow along the banks of the Milk River, demarcating its meandering course and providing scenic interest and shelter from the hot prairie sun. Rare and endangered species that are likely to be found along the valley bottom include the Great Plains toad, the Plains hog-nosed snake, the Western painted turtle, the Missouri River beaver, and the Golden-Mantled marmot.

The vertical relief of the valley walls is greater than 500 feet where the Milk River crosses the Canadian-United States border to the Missouri River.

Erosion of the sandstone formations that are exposed along many parts of the valley walls by wind, rain and frost action has resulted in the development of bizarre-shaped "hoodoo" landforms. Similarly interesting are the colourful weathered interbedded shales, which in places have developed into badland formations.

On the more sheltered sandstone faces are found the famous "Writing-On-Stone" petroglyphs, the largest collection of Indian rock carvings in Canada. These same landforms provide suitable habitat for the Eastern short-horned lizard and various birds of prey, many of which are currently endangered.

Writing-On-Stone Provincial Park encompasses the major area of hoodoo landscape development, the Indian petroglyphs, and Police Coulee Historic Site.



SUFFIELD **B**

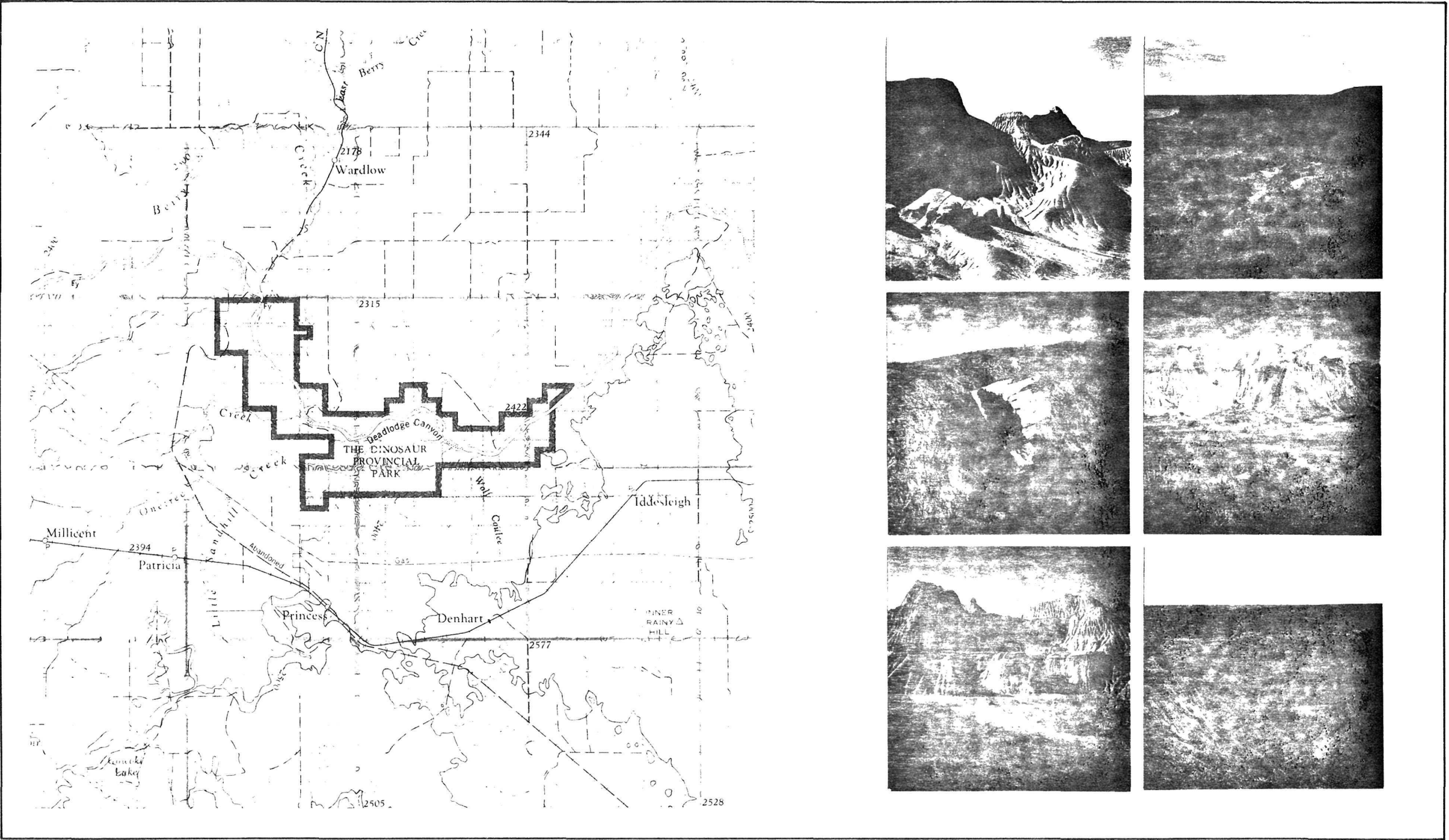
The Canadian Forces Base-Suffield is located in southeastern Alberta between the confluence of the Red Deer and South Saskatchewan Rivers, approximately 12 miles north of Medicine Hat. It is readily accessible via the Trans-Canada Highway which passes only 1 1/2 miles from the southwest corner of the reserve at Suffield.

In brief, the Suffield area is one of the best remnants in Canada and North America where the plains, as an environment and as a native Indian culture region can be preserved in perpetuity as a Canadian heritage. More specifically, it is the largest continuous extent of reasonably undisturbed natural Mixed Prairie grasslands in Canada. Because of its large surface area, pristine vegetation, and its historical association with bison, the Suffield area represents some of the best potential bison range in North America. It is also one of the most important pronghorn antelope ranges (winter and summer) in Canada. Since hunting has been prohibited within the Suffield area since its establishment as a military reserve, nearly all elements of the Great Plains fauna are widespread throughout the area. A number of other species, such as the kangaroo rat and the pocket mouse, approach the northern limit of their geographical range and are very rare. Reports of kit fox and the Greater Prairie chicken, two species near extinction, within the area have not yet been confirmed scientifically.

In addition to extensive level and gently rolling prairies, the area also encompasses a wide diversity of landforms associated with glacial, fluvial and aeolian processes. Associated with these diverse surficial deposits is a complete sample of the four sub-climax plant communities that are characteristic of the Mixed Prairie ecosystem: (1) sandhill complexes; (2) valley complexes; (3) slough-meadow, and (4) saline vegetation complexes. As many parts of the Suffield area have never been cultivated or grazed, the vegetation is as near to its original state as any areas known to us.

It is an area of tremendous Plains archaeological potential and significance. The area constitutes the largest single block of virtually undisturbed cairn, tipi ring and medicine wheel sites to be found anywhere on the Canadian Plains. Such evidence of Plains Indian use forms as cogent a part of the natural prairie setting as the antelope, the soaring broadwinged hawks and sage brush.

Although the entire Suffield Reserve is of national significance, the natural and cultural features are primarily concentrated in the eastern third of the Reserve, comprising the Middle Sand Hills, the South Saskatchewan River corridor and the Hogsback Prairie area. All three areas are zoned either "out of bounds to military activity", or "limited military use - no track vehicles off roads," and as such enjoy a certain degree of protection.



RED DEER RIVER BADLANDS C

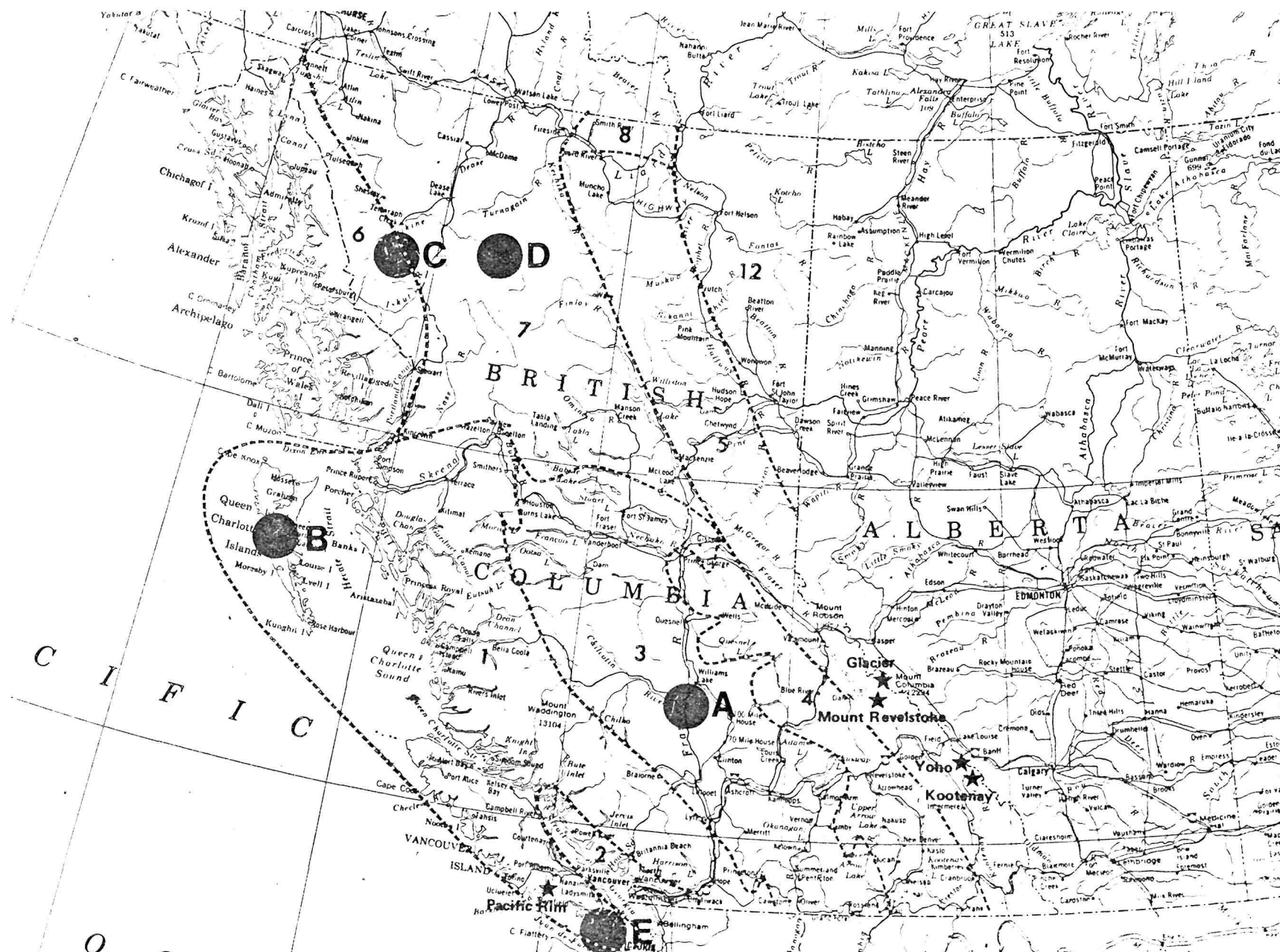
The Red Deer River Badlands extend from Atlee, near Steeveville, to Nevis in the Stettler district of east-central Alberta. The most spectacular badland development is in Dinosaur Provincial Park, 29 miles northeast of Brooks on the Trans-Canada Highway.

Here, in comparatively recent times, the Red Deer River has carved a mile-wide valley to a depth of almost 400 feet through the multi-coloured geological formations of Cretaceous age. Subsequent erosion of the exposed beds has resulted in the development of the most spectacular badlands in Canada - a complex of colourful sharp ridges, steep-walled gullies and canyons, pyramids, knobs, spires, hoodoos, and other bizarre-shaped landforms. The Badlands are also of international paleontological interest, as it is considered one of the richest beds of dinosaur fossil remains in North America. Many of these now reside as reminders of a colourful part of our ancient past, in museums in Toronto, Ottawa, New York and other cities of the world.

The prime area of badland development and dinosaur fossil beds are within Dinosaur Provincial Park.

The bordering upland prairie level is also of interest as it is one of the better remnants of Mixed Prairie grasslands in Canada.

British Columbia



A - FRASER-CHILCOTIN
JUNCTION

B - QUEEN CHARLOTTE
ISLANDS

C - EDZIZA/COAST MOUNTAINS
AREA

D - SPATSIZI PLATEAU AREA

E - RACE ROCKS

FRASER-CHILCOTIN JUNCTION

A

The area surrounding the junction of the Fraser and Chilcotin Rivers in central British Columbia offers excellent representation of the landscapes and vegetation of the Interior Dry Plateau.

The rivers have been incised deeply below the level of the surrounding plateau, and together comprise portions of the finest and most spectacular wild river system in southern and central B.C. Fluvial processes, aeolian features, and continental glaciation are clearly portrayed in the area.

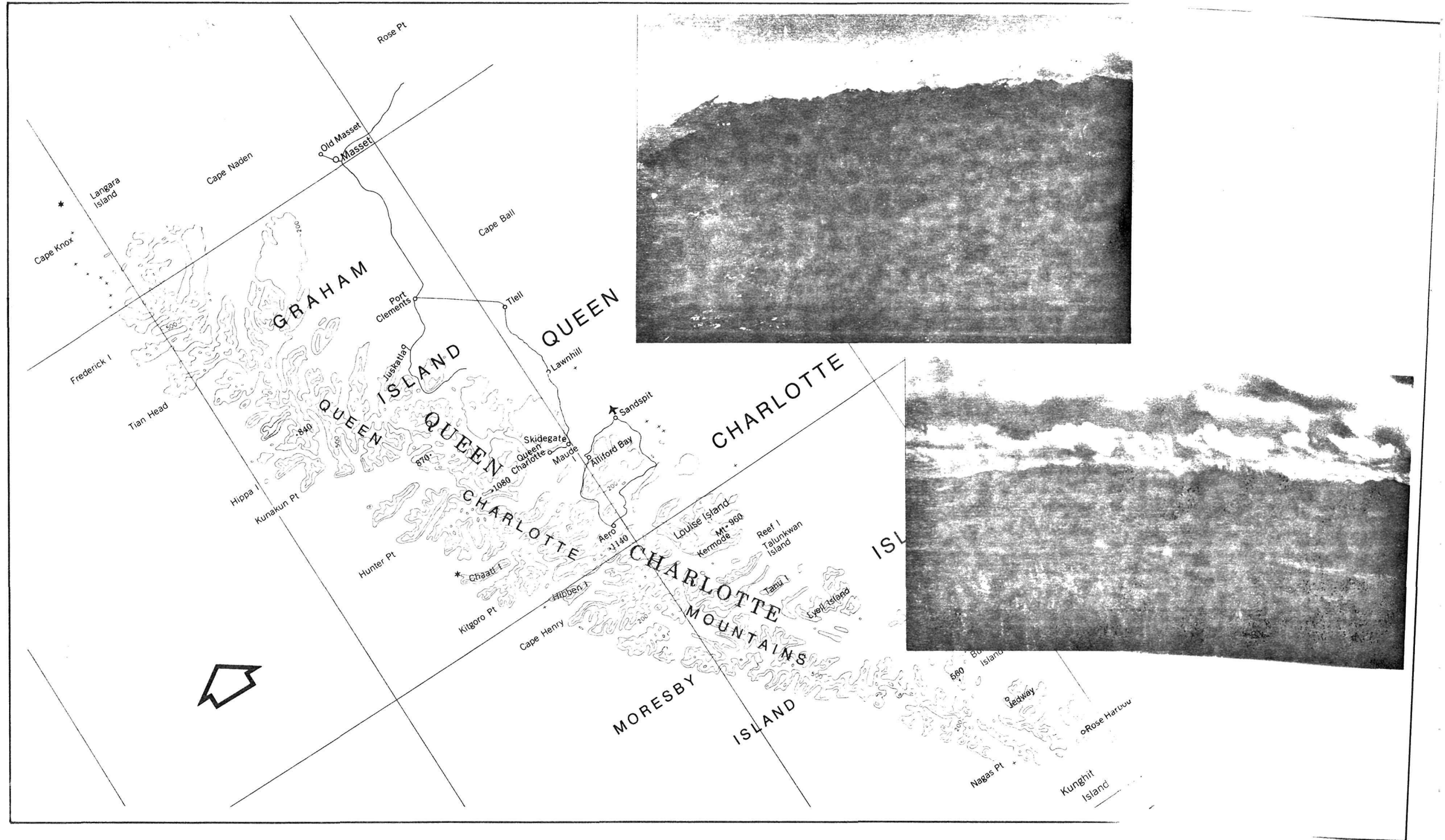
Vegetation includes representation of the lower, middle and upper levels of grassland. The site contains one of the most important waterfowl areas of the Interior Dry Plateau, and embraces the entire range of the largest California Big Horn Sheep herd in the Province. The region also provides habitat for mule deer, wolf, grizzly bear, mountain goat, and puma.

The Fraser and Chilcotin Rivers were studied by the Wild River survey in 1973. Both offer excellent water-oriented recreation opportunity, including canoeing and rafting.

A provincial wildlife refuge has been established to preserve key sheep range at the junction.

Beecher's Prairie, lying between the Fraser and Chilcotin Rivers, has been identified as a potential I.B.P. reserve. It is a good example of Caribou parkland, and is located on Crown Land that includes part of a military reserve.

Land access is excellent. The site is approximately 150 miles north of the Trans-Canada Highway, and secondary roads and trails provide access to the site.



QUEEN CHARLOTTE ISLANDS B

The Queen Charlotte Islands encompass roughly 150 islands in a compact triangular archipelago, approximately 50 miles off the mainland B.C. coast. It has been said that the Islands are in many respects like a model of B.C., in that the majority of landforms and physiographic terrains present in the Province are present in miniature in the Islands. Physiographic representation includes a transition from low lying forest and muskeg covered plains to areas of dissected and relatively undissected plateaux, to the rugged and spectacular mountains of the Queen Charlotte Ranges.

The Islands offer clearly defined evidence of both current and past shoreline features and processes and of the erosional and depositional effects of glaciation. They front two Marine Natural Regions, and provide excellent terrestrial and marine wildlife habitats. The Islands are a major stopover on the Pacific Flyway, and support such endangered species as the peregrine falcon, bald eagle, trumpeter swan, and sandhill crane. Luxurious rainforests include some of the world's largest red cedar and sitka spruce. The islands are rich in Haida history, and have some of the best representation of ancient Indian villages and aboriginal totem poles of all Northwest Coast cultures.

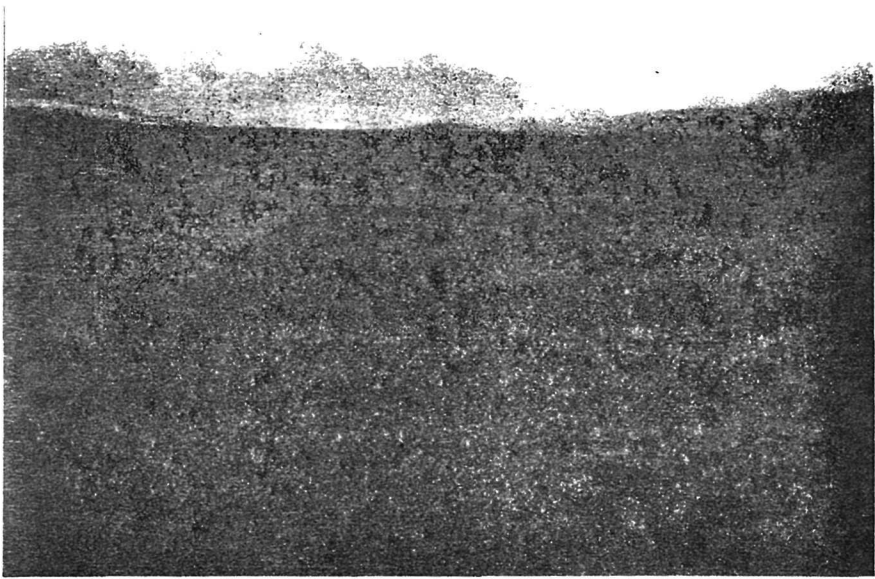
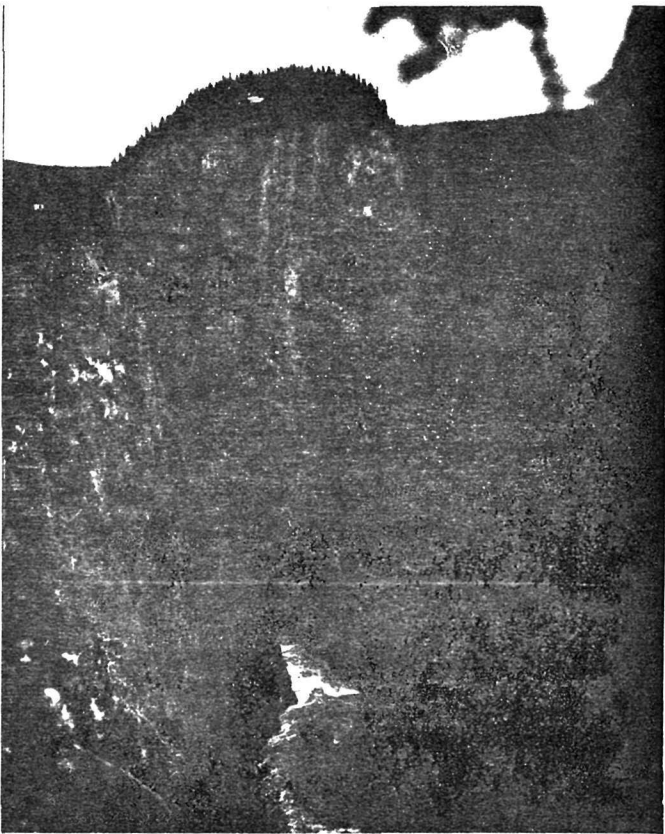
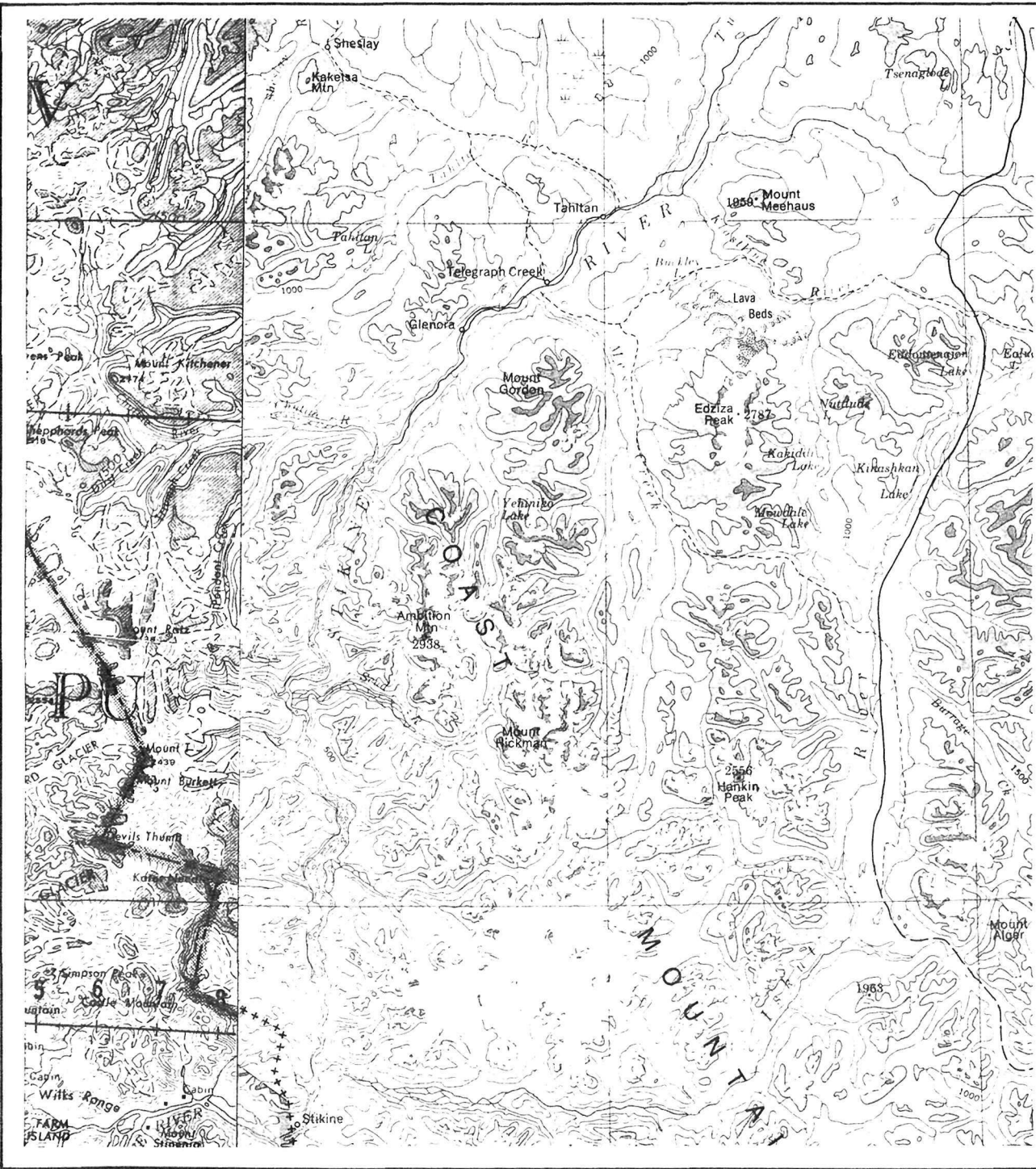
Naikoon Provincial Park (Class A) covers roughly 280 square miles on the northeastern corner of Graham Island.

Much of the rugged southern island is relatively untouched by Man, and a local Island citizen group is actively working to protect its wilderness values from future resource exploitation.

There is excellent access to the mainland, including daily jet service from Vancouver.

Excellent land and water based recreation and interpretation potential oriented to a network of protected fiordal waterways and mountain systems is possible.

There are five Ecological Reserves on the Islands.



EDZIZA/COAST MOUNTAIN AREA **C**

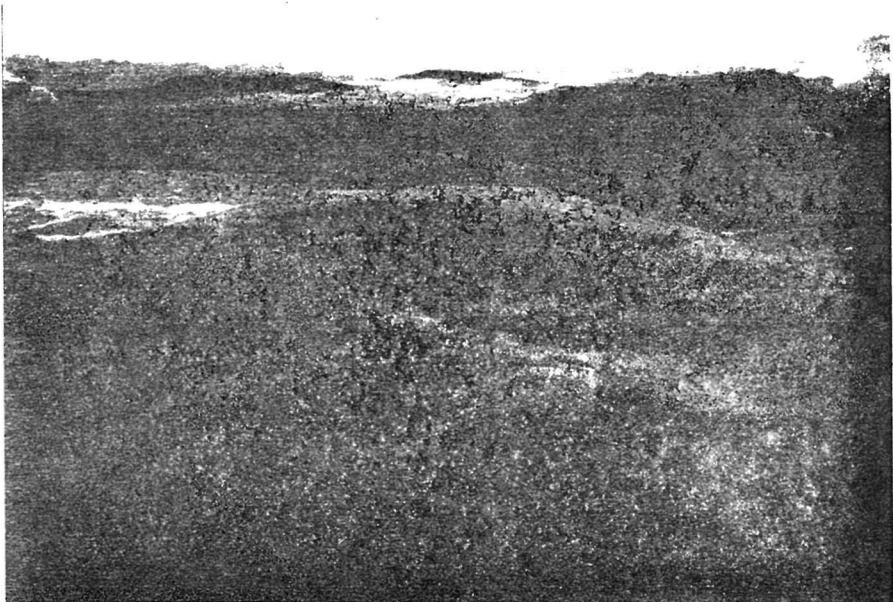
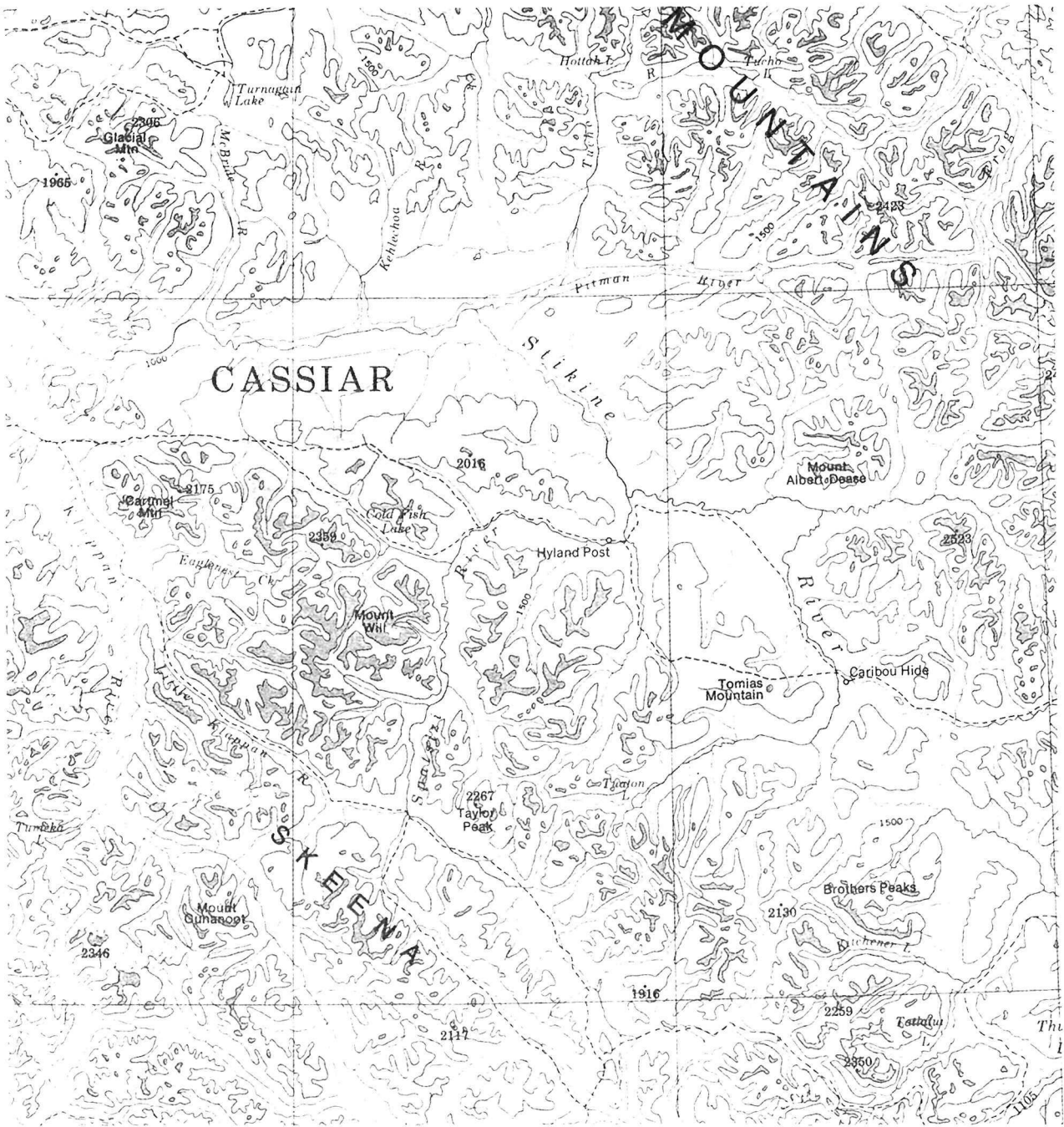
This portion of northwestern British Columbia encompasses a variety of landscapes, including mainly unwooded and rolling upland plateau surfaces, a sloping and dissected belt of transitional highlands, and the high, extremely rugged and serrated peaks of the Boundary Ranges of the Coast Mountains.

The area vividly portrays important natural processes that create and modify landscapes. Icefields and glaciers occupy extensive areas in the mountains, and the erosional and depositional consequences of Pleistocene glaciation are widespread throughout the plateau, highland, and mountain systems. Lava flows, cinder cones, and breccia pipes are found in the vicinity of Mt. Edziza, a huge dome-like composite volcano; nearby, brilliantly coloured altered lavas underlie the Spectrum Range. In the Boundary Ranges is found the spectacular Hoodoo Mountain, an extinct or possibly dormant volcano, and Lava Fork, which may be the site of Canada's most recent volcanic eruption. At the Grand Canyon of the Stikine, the river has eroded a magnificent canyon approximately 40 miles long with nearly vertical walls several hundred feet deep, in lavas that originated from Mt. Edziza.

Mt. Edziza Provincial Park encompasses a portion of the area, centering on a Class A Provincial Park (326,000 acres) surrounded by a Recreation Area (249,000 acres), both established in 1972.

Land access to the eastern portion of the area is excellent, via the recently upgraded Stewart-Cassiar Highway; and the soon to be completed British Columbia Railroad.

The Stikine River was investigated by the Wild River Survey in 1973, and the entire river considered to be the most spectacular of the wild rivers surveyed in northern British Columbia. Portions of the Grand Canyon of the Stikine may be navigable by raft.



SPATSIZI PLATEAU AREA D

The Spatsizi Plateau, a subunit of the more extensive Stikine Plateau, is comprised of a number of gently undulating tablelands or individual plateau units, whose surfaces lie generally above the 4500 foot treeline. A network of wide, sparsely timbered valleys separate the plateau units. The Plateau is in a youthful stage of dissection, and occupies a broad basin surrounded by the rugged ranges of the Skeena, Omineca, and Cassiar Mountains.

The Plateau and its environs, containing the headwaters of the Stikine River system, provide excellent representation of the mountain and plateau landscapes that characterize this part of the country.

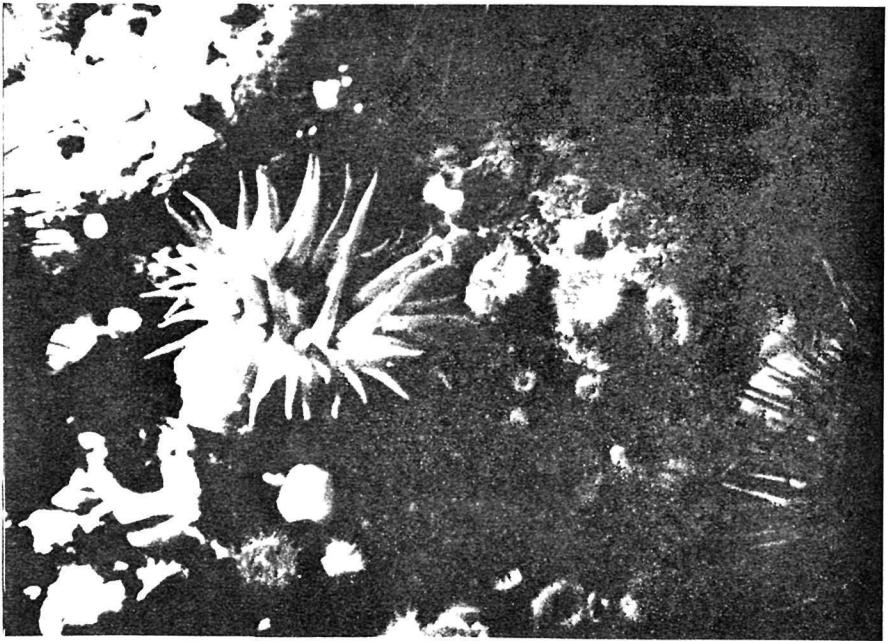
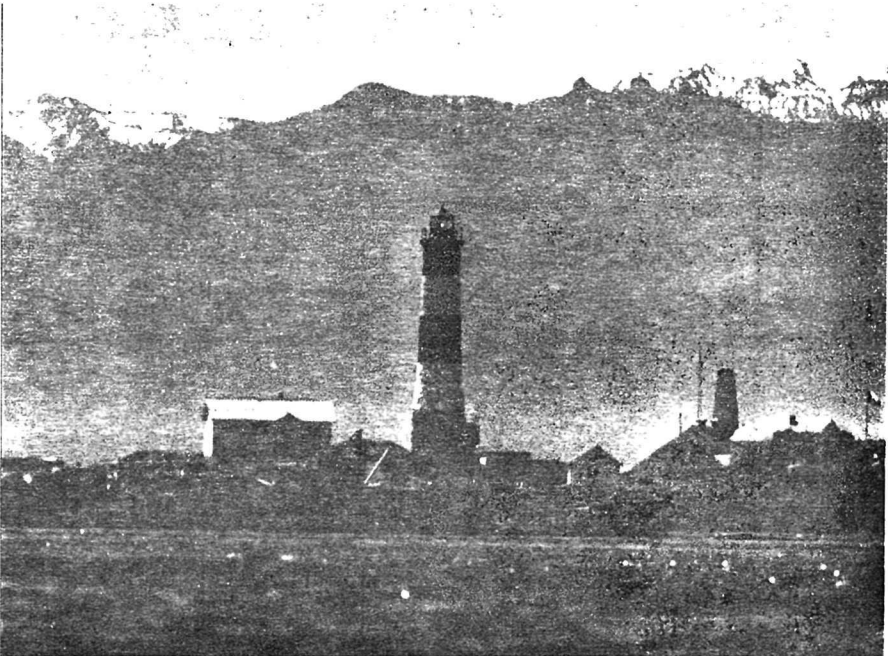
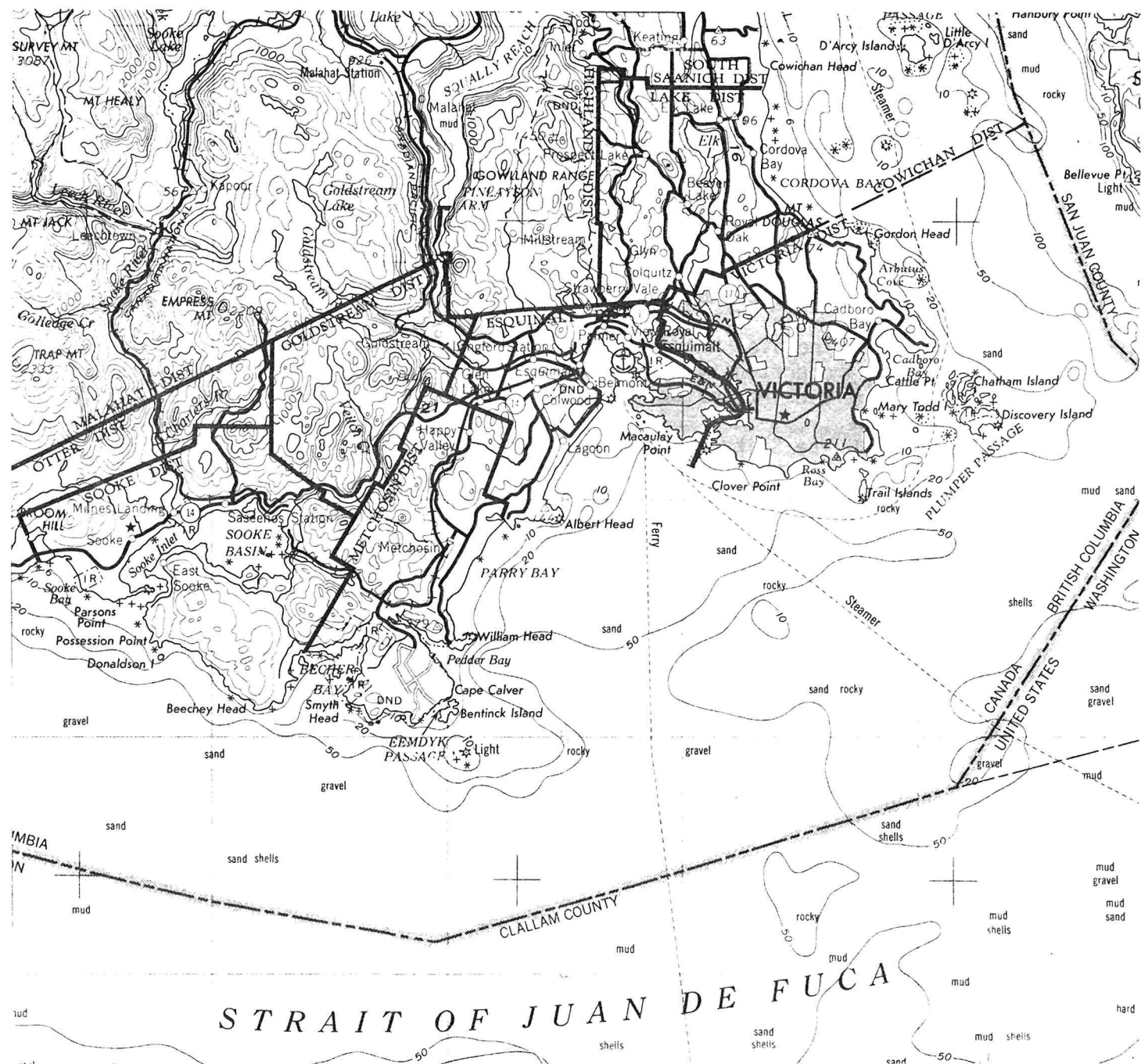
The area offers an extremely important habitat for a variety of wildlife, providing rangeland for the Osborn Cariobu, mountain goat, moose, grizzly bear, and timber wolf. Importantly, it will support a self-contained and self-perpetuating stock of the increasingly threatened Stone Sheep - a species that has relatively limited range in British Columbia and in a very small part of the Yukon.

Spatsizi Plateau Wilderness Provincial Park, (1,668,020 acres) surrounds the Gladys Lake Ecological Reserve (82,000 acres). Both were established in November 1975.

Land access to the area via the recently upgraded Stewart-Cassiar Highway, and the soon to be completed British Columbia Railroad, is excellent.

The area provides excellent wilderness recreation opportunity, including wilderness canoeing, back-packing, nature interpretation, etc.

The Stikine River was investigated by the Wild River Survey in 1973, and the entire river considered to be the most spectacular of the wild rivers surveyed in northern British Columbia.



The Race Rocks Marine Area is characterized by exceptionally sunny, dry summers and mild ice free winters. Garry Oak and Arbutus Woodlands exemplify a rare and unique vegetation association in Canada which exists only in this climate without harsh extremes.

The coastal zone expresses almost the entire range of physiographic landform themes found at the land-sea interface. The intertidal and subtidal habitats display a high diversity of marine community assemblages. The marine flora and fauna of the Outer Pacific Coast and Straits of Georgia and Juan de Fuca Marine Regions merge to achieve outstanding expression in terms of variety, rarity, and abundance of life forms.

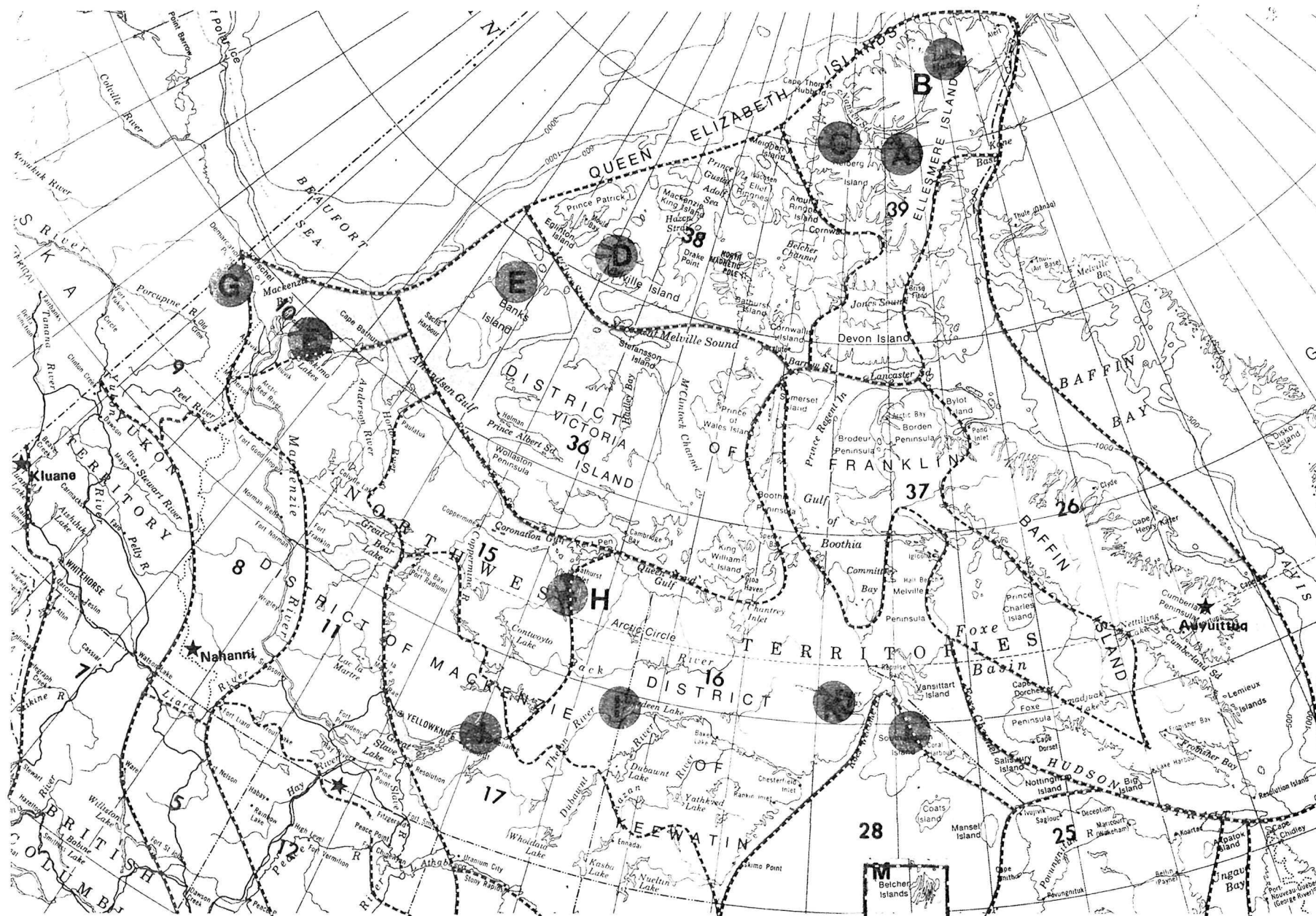
The marine life of the Aleutian (Boreal) and Oregon and California (Temperate) life zones overlap here. There is an abundance of Harbour Seals, a large seasonal population of Northern and California sea lions and less numerous but significant seasonal populations of Cetacea. The area is a critical wintering, staging and feeding area for the many waterfowl and shorebirds utilizing the Pacific flyway. A variety of seabirds of the Diving, Dabbling Duck, Toti-Palmate, Tub-Nosed Swimmer and Alcid Families form significant populations. The endangered Osprey and Bald Eagle nest in suitable shoreland areas.

It is one of the most significant areas on Vancouver Island for observing and studying marine flora and fauna as well as Coastal Indian culture, coastal defence and military history.

Esquimalt Lagoon is a Federal (C.W.S.) Bird Sanctuary, and two Victoria Regional District Parks, one Provincial Park and one National Historic Park are located in the immediate shoreland adjacent the marine study area.

Members of the scientific community and numerous conservation groups have expressed great interest in preserving this unique marine region.

Northwest & Yukon Territories



- A – FOSHEIM PENINSULA
- B – NORTHWEST ELLESMERE ISLAND
- C – AXEL HEIBERG ISLAND
- D – WESTERN MELVILLE ISLAND
- E – NORTHWEST BANKS ISLAND
- F – PINGOES OF TUKTOYAKTUK
- G – FIRTH RIVER – BRITISH MOUNTAINS – HERSCHEL ISLAND
- H – BATHURST INLET
- I – THELON GAME SANCTUARY
- J – EAST ARM GREAT SLAVE LAKE
- K – WAGER BAY
- L – NORTHERN SOUTHAMPTON ISLAND
- M – BELCHER ISLANDS



FOSHEIM PENINSULA

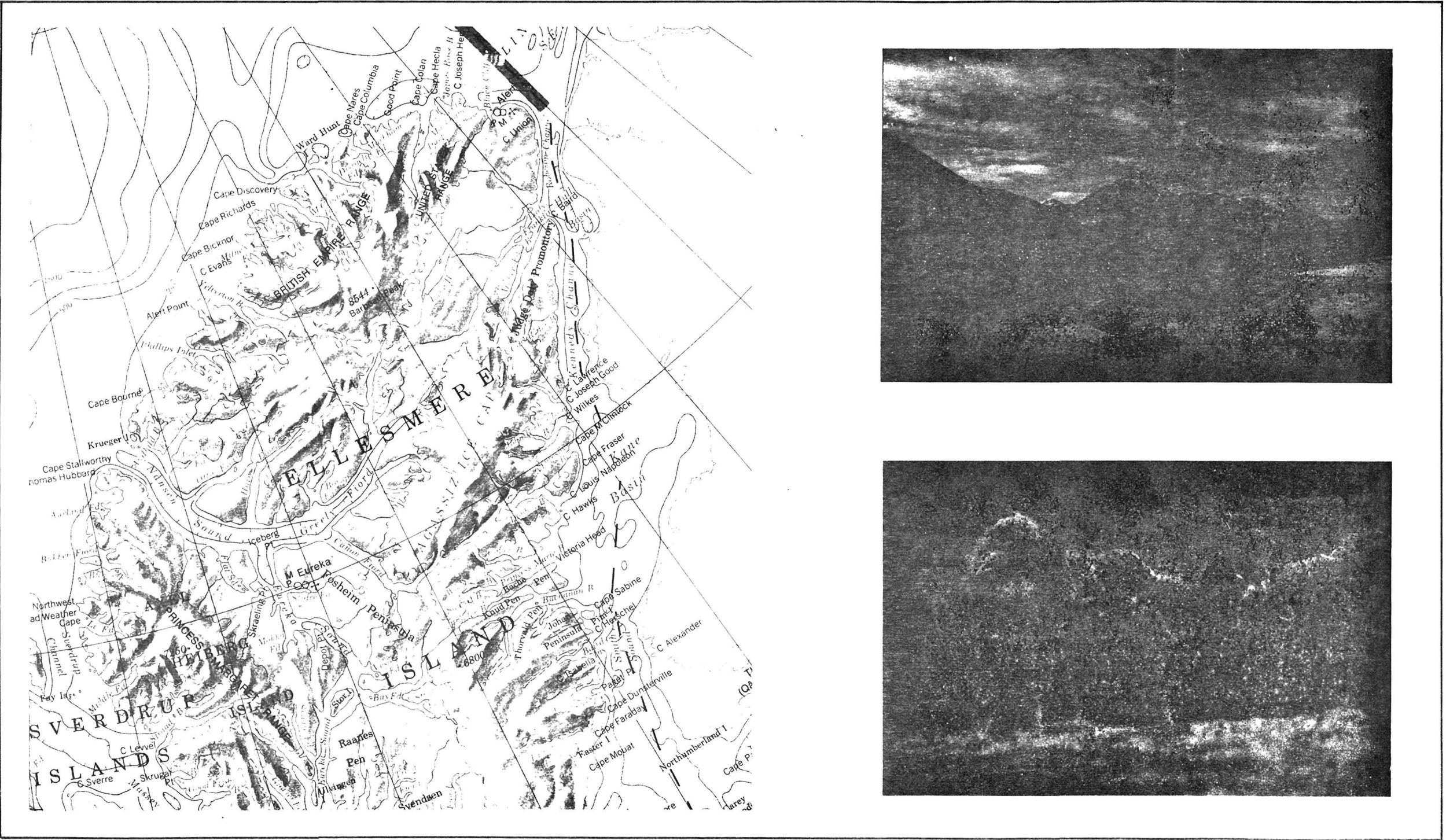
A

The Fosheim Peninsula is a landscape of rolling hills and well-vegetated valleys with an exceptionally mild climate for the latitude. The seas around the peninsula are completely or partially frozen all year; at its base is a range of mountains, the Sawtooths, which are snow-covered all year.

The Peninsula is an excellent example of a High Arctic ecosystem. Arctic hares are abundant and in summer can be seen on the slopes in large herds. There are large populations of polar wolf and muskox. Arctic fox and Peary caribou are fairly common. Snow geese moult in some of the tundra pond and lake areas; peregrine falcons and gyrfalcons breed in the general area.

The Fosheim Peninsula has been listed as a proposed IBP Ecological Site.

This area was selected in 1973 as being of national significance along with the Lake Hazen area and Axel Heiberg Island.



NORTHWEST ELLESMERE ISLAND B

This area comprises the high plateau surrounding Lake Hazen, the mountain ranges to the northwest, and, beyond, the most northerly Arctic coast of Canada. Reaching over 8,500 feet, the mountains are the highest in the Arctic islands. They are covered by massive ice-caps and penetrated by numerous long fiords, some containing glaciers calving directly into the sea. Off the Arctic coast a series of ice shelves act as a source of natural ice islands. A few of the fiords reaching inland from the Arctic Ocean are connected to the interior plateau and Lake Hazen by high passes over the mountains. Such passes often connect the sheltered, isolated, wildlife habitats that are characteristic of this region.

The highest concentration of animals occurs along the north shore of Lake Hazen. In spite of the high latitude and the very short growing season there is a wide variety of vegetation types, from polar desert to luxuriant sedge meadows, supporting populations of musk ox, Peary caribou, polar wolf, Arctic fox, and between twenty and thirty species of birds — including snow geese and gyrfalcons. The Lake itself has landlocked Arctic char.

Though wildlife is less abundant the area is in many respects biologically similar to Axel Heiburg Island and the Fosheim Peninsula. But for the sheer size and complexity of the Ellesmere ice-caps and associated glaciers and ice-shelves no comparison can be found.

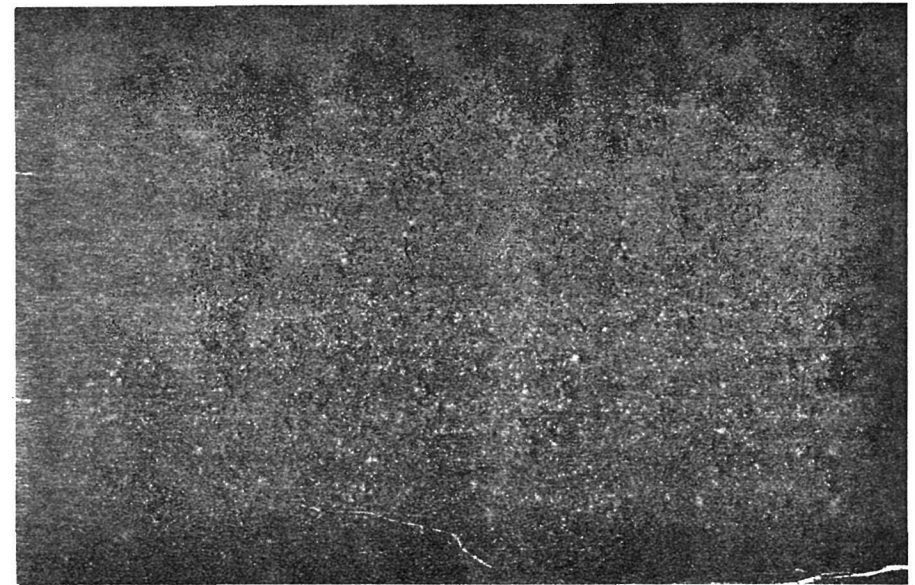
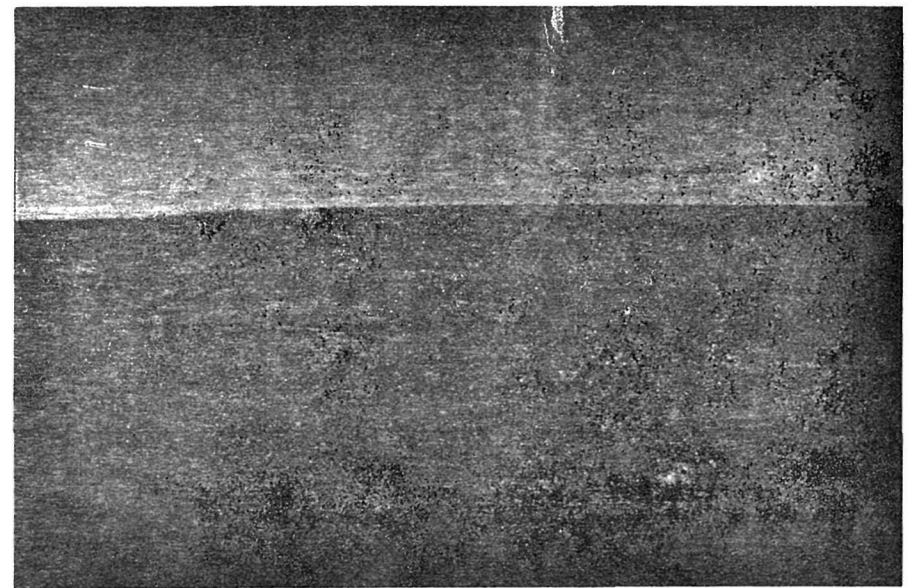
Five proposed IBP Ecological Sites are listed for this area:
Lake Hazen, Tanquary Fiord, Ayles Fiord, Phillips Inlet,
Van Hauen Pass.

AXEL HEIBERG ISLAND C

The landscape of Axel Heiberg Island is dominated by the central range of ice-capped mountains, the second highest in the Arctic archipelago. The coasts are deeply indented by fiords and are ice-bound for most of the year especially on the west coast, exposed to the Arctic Ocean.

The east coast is sheltered by the central mountains and the coastal lowlands have a comparatively mild climate. Musk ox, Arctic hare, and polar wolf are plentiful and there are significant numbers of Peary caribou and Arctic fox. The sedge meadows around the Chain of Three Lakes are an important moulting area for snow geese.

Three areas on Axel Heiberg have been listed as potential IBP Ecological Sites: Expedition Fiord, Sherwood Head, and Chain of Three Lakes.

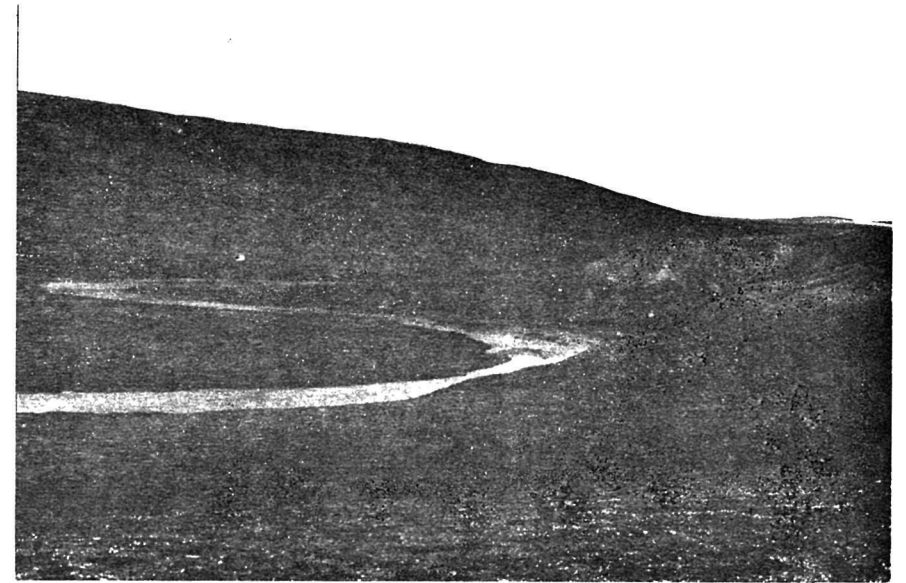


WESTERN MELVILLE ISLAND D

Much of this area is a rugged, barren plateau, dissected by deep ravines and penetrated by long, narrow, fiord-like inlets. In contrast, there are several sheltered valleys and coastal lowlands supporting a varied and vigorous vegetation. There are two rather unique features: a series of small, thin, senescent ice-caps, the only surviving examples in the western Arctic, and the Canrobert Hills, rolling uplands remarkable for their red, orange, brown, and purple surface colours.

The area lies in the summer migration route of the largest population of Peary caribou in the Arctic. The herds winter on Prince Patrick Island, move across Eglinton Island in the spring and spend the summer circulating around the coasts of Melville Island. Associated with the caribou is what is believed to be the largest polar wolf population in the Arctic Islands. Melville Island also supports a considerable muskox population, near Bailey Point reaching the greatest density recorded in the Arctic: 500 animals in 250 square miles. Polar bears hunt along the coasts in summer.

Two places have been listed as proposed IBP Ecological Sites: Bailey Point, and a strip between Ibbett Bay and McCormick Inlet.



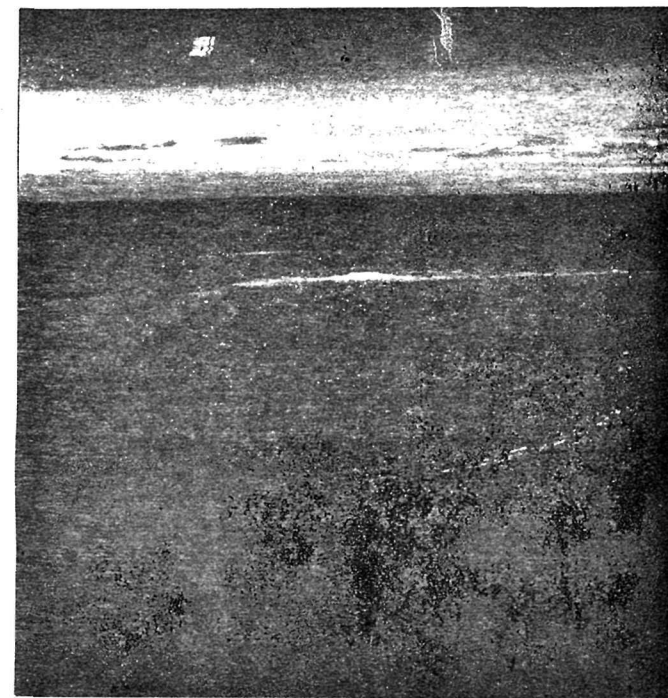
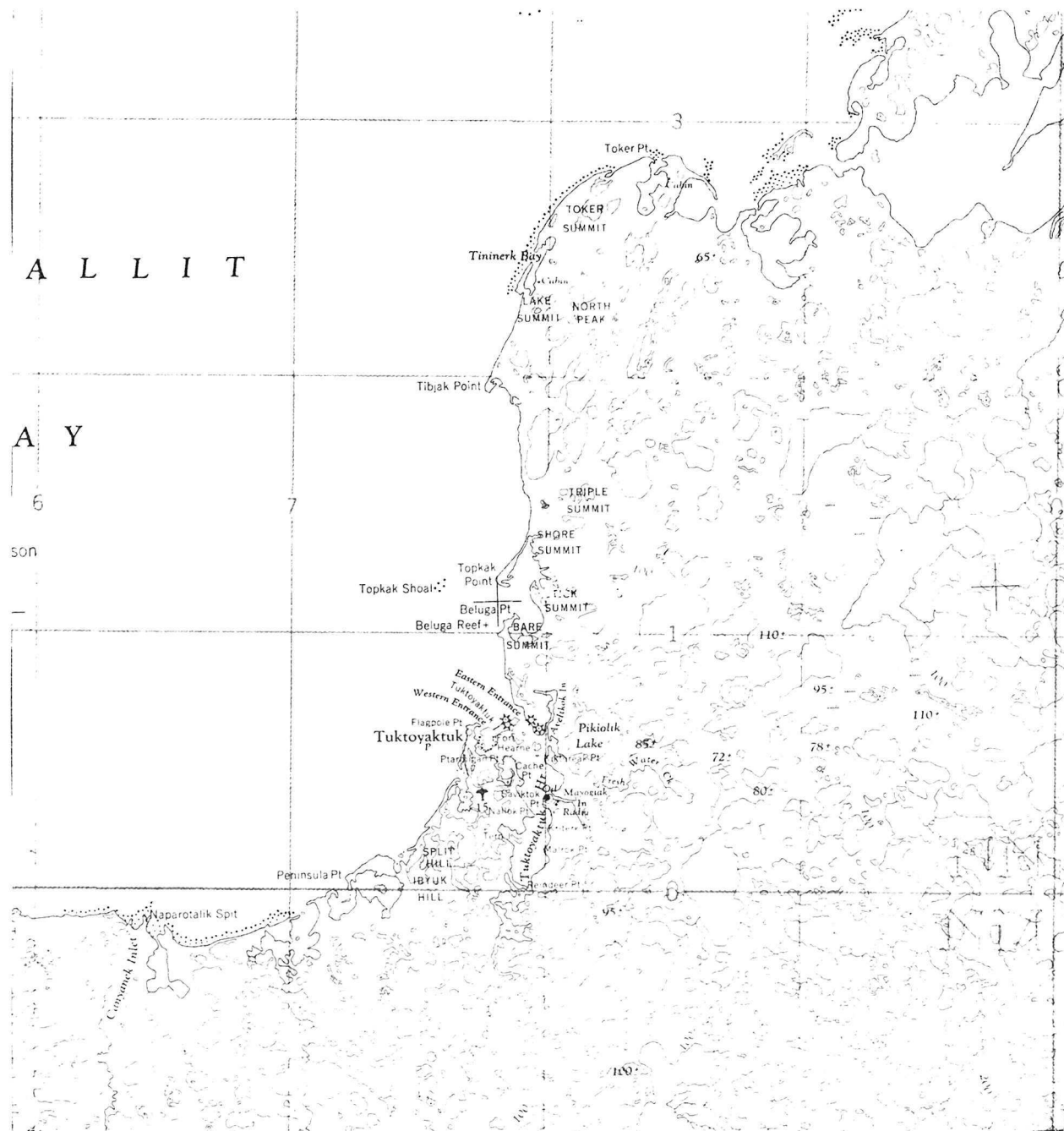
NORTHWEST BANKS ISLAND E

The topography throughout northern Bank's Island is more subdued than that in the eastern Arctic Islands, but there is still a strong degree of variation between the deeply ravined Devonian plateau in the east, the rolling hills of Thomsen River valley, and the Beaufort Plain stretching as far as the flat coast of lagoons, sandbars, and wide braided deltas.

Bank's Island has the largest and most vigorous muskox population in the Arctic. They are concentrated around the confluence of the Thomsen and Muskox Rivers, and traditionally calve in the vicinity of Shoran Lake. An indigenous herd of Peary caribou migrate into the area each spring, pausing to calve just north of the Bernard River before dispersing over the whole area. Before migrating south they gather in the Thomsen River valley and it is thought that some groups remain there all winter.

The Thomsen River valley is a critical area for snow and brant geese moulting, little brown crane breeding, and peregrine and gyrfalcon breeding. Snowy owls and Arctic foxes are abundant throughout the area. Polar bears den along the coasts, concentrating around Norway Island.

The lower Thomsen River valley is at present a Migratory Bird Sanctuary with access restricted during critical breeding and moulting periods. The Shoran Lake area has been listed as a proposed IBP Ecological Site.



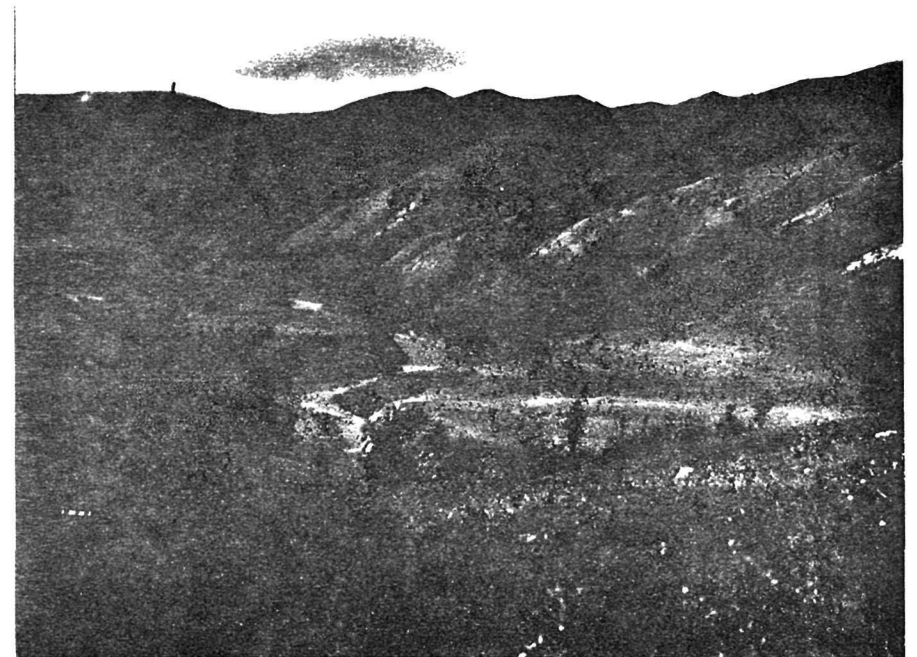
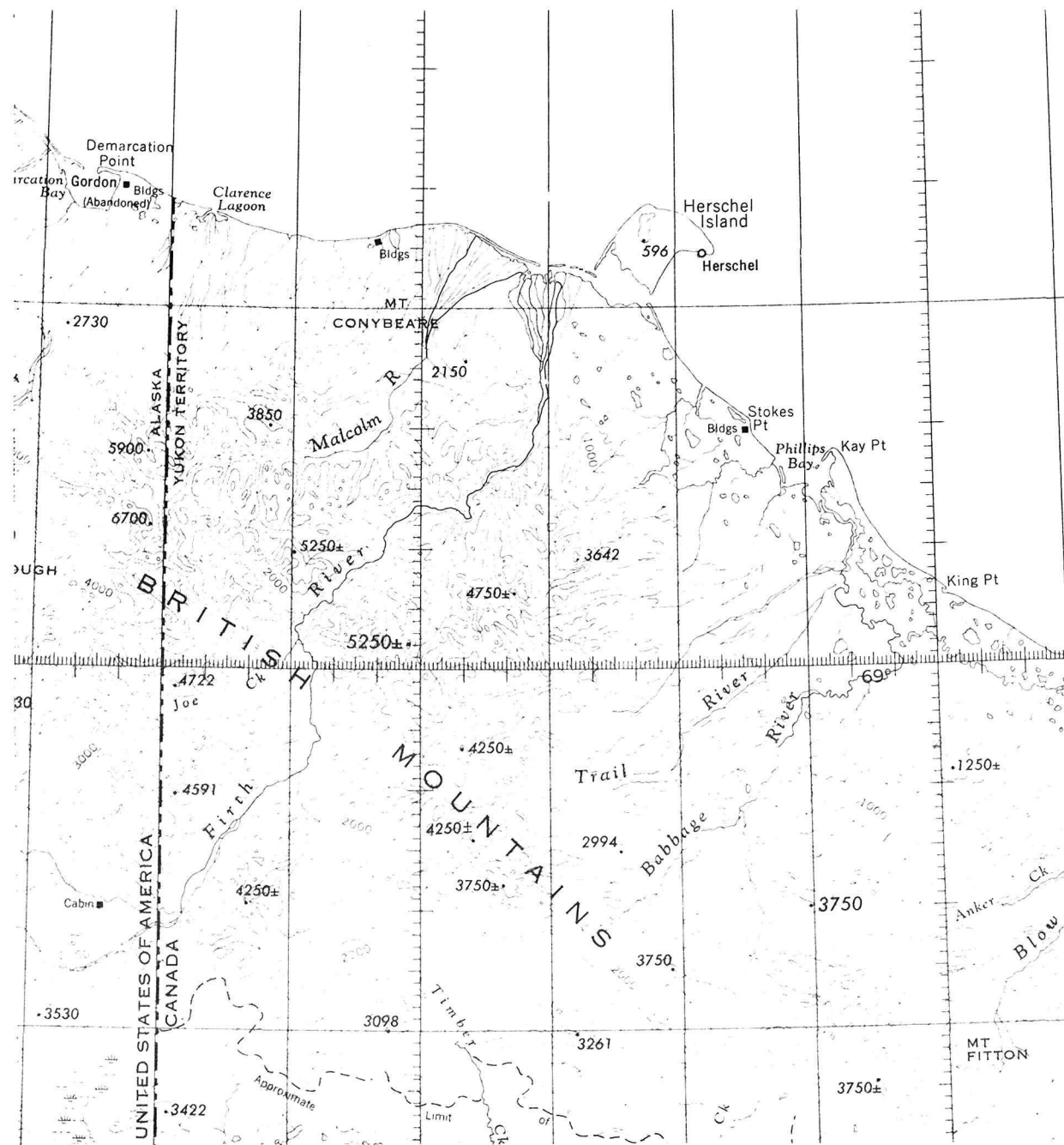
PINGOES OF TUKTOYAKTUK F

Pingoes, or ice-cored hills, are one of nature's most peculiar phenomena. The Tuktoyaktuk Peninsula contains a wide variety of pingoes, with respect to size, age and form in what is believed to be the largest concentration of these features in the world.

The existence of a single pingo would be regarded a curious occurrence but of limited interest. What gives this area a special significance is the presence of a high density of pingos which create a pingo landscape. This landscape element is most evident in a narrow band of coastal land near Tuktoyaktuk hamlet.

In addition to pingoes, this area contains an array of other permafrost associated features such as tundra polygons, ice-lenses, ice wedges and thermokarst lakes, a fine representation of transitional tundra vegetation, bird, mammal and marine life. It is also an area of strange scenic beauty.

Due to the unique distribution characteristics, high density, variety, scenic and ecological attributes of pingoes, the pingo landscape is judged to be of national significance.



FIRTH RIVER – BRITISH MOUNTAINS – HERSCHEL ISLAND**G**

This is a complete area rich in natural values, diverse environments and superb scenery. Its main components are the British Mountains, Firth River, North Slope and Herschel Island.

The British Mountains rise abruptly from the North Slope, reaching 6,000 feet near the International Boundary. The scenery is renowned.

The Firth River traverses these ranges, carving its way to the Beaufort Sea in a steep-walled valley. This is a truly wild river that spills out on the North Slope to form a multibraided delta used for moulting and staging by snow geese.

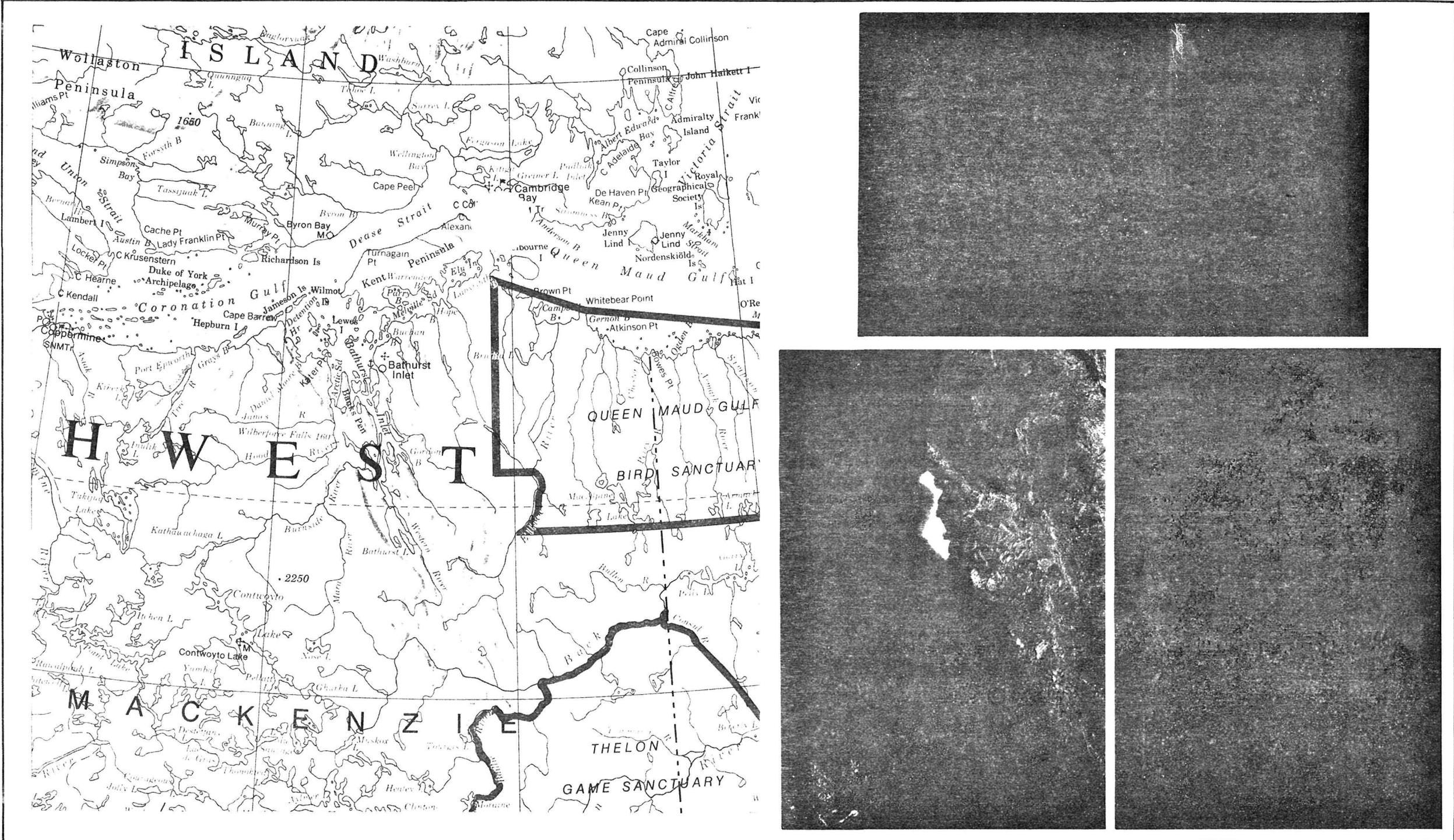
The North Slope is a gently rising strip of land of tremendous ecological significance. It is a critical habitat for many Arctic mammals and birds.

Herschel, the only Island along the Yukon coast, is a unique ice thrust feature consisting of ground ice and silt. Its flora is exceptionally rich.

Some of the primary features of the area are as follows:

Unglaciaded terrain; northernmost extension of white spruce; excellent grizzly habitat; northernmost range of Dall sheep; important spawning waters for Arctic char; migratory route for the Porcupine caribou herd; historical and archaeological values related to native history, whaling, the R.C.M.P., and the Hudson Bay Co.; habitat for whales, some endangered species; important moulting and staging areas for snow geese and sea birds; outstanding scenic values.

Adjacent to this area, in Alaska, lies the vast Arctic Wildlife Range. There is support both in Canada and the U.S. for the concept of an International Wildlife Range, which would include the British Mountains, for the protection of the Porcupine caribou herd.

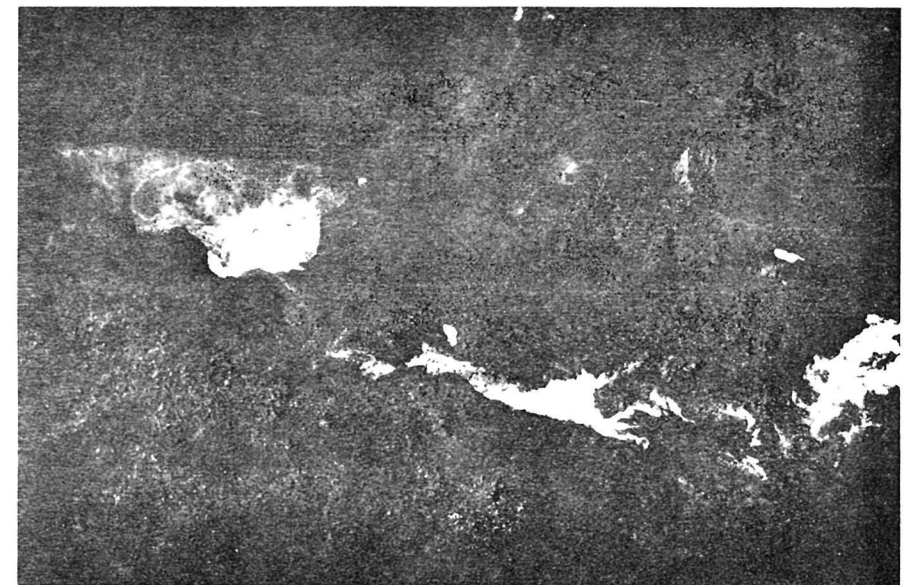
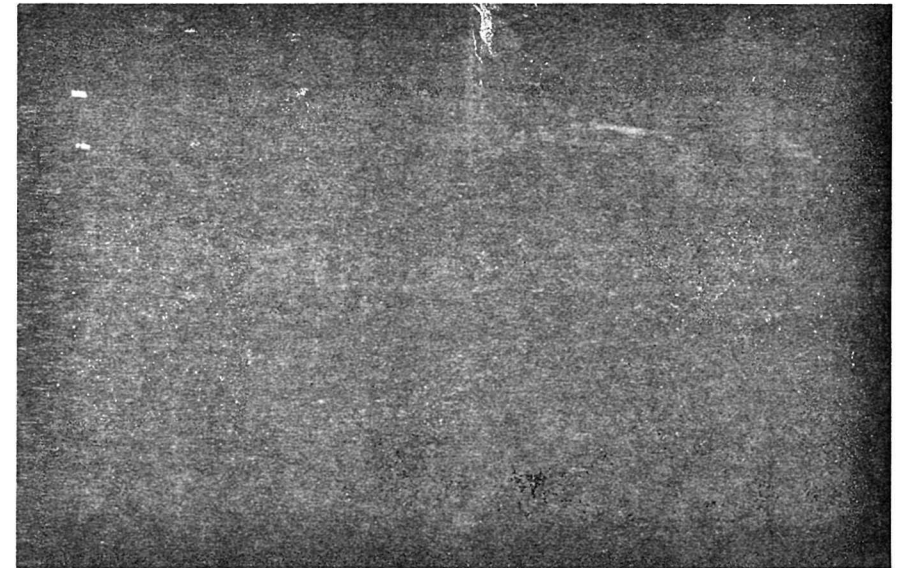
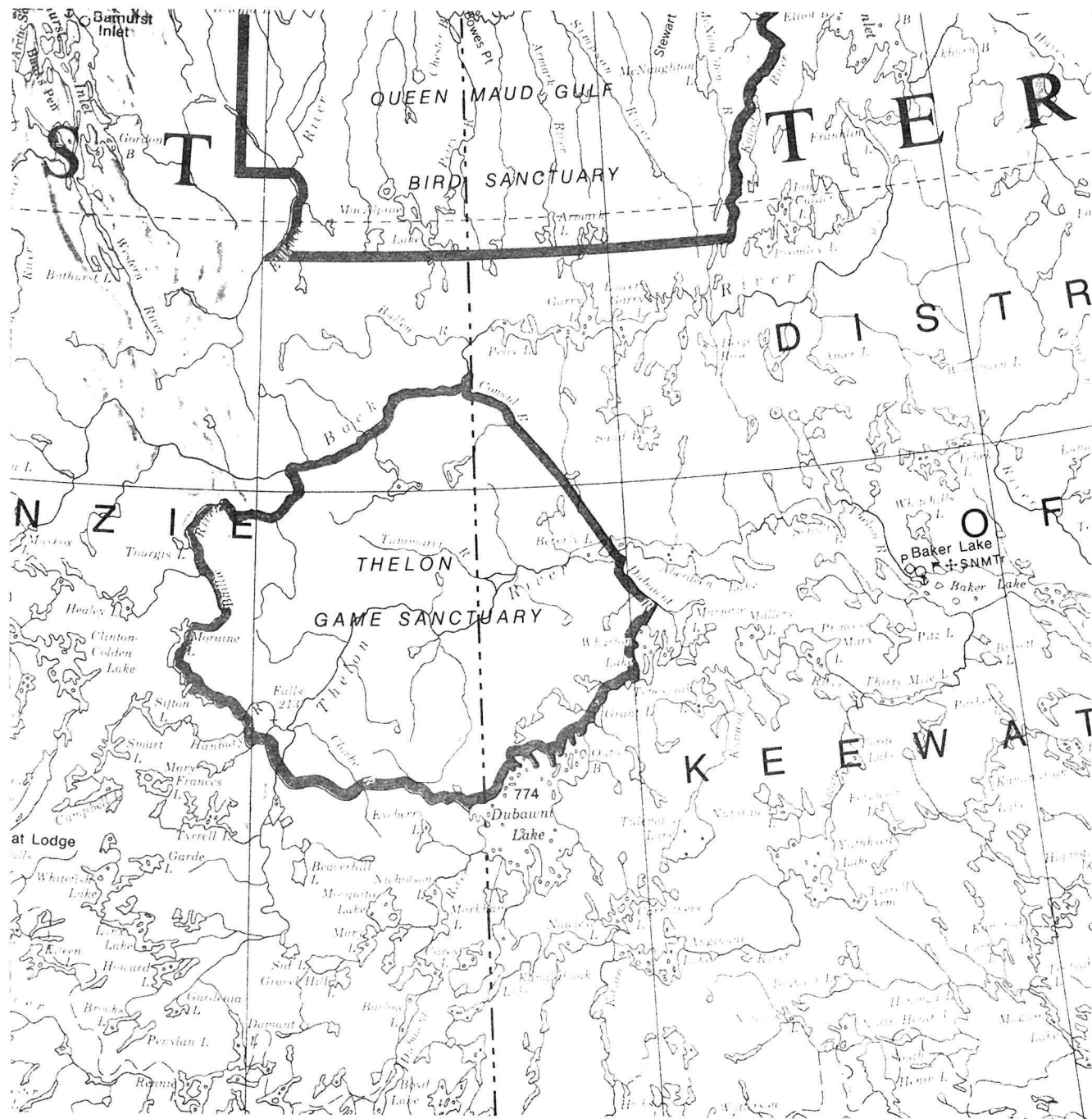


BATHURST INLET H

At Bathurst Inlet the Arctic Ocean penetrates a hundred miles southwards into the Canadian Shield. The Inlet is a submerged rift valley. Its western rim is a massive escarpment running the length of the Inlet. A number of impressive waterfalls occur where rivers cut through this escarpment; one set, Wilberforce Falls, are the highest north of the Arctic Circle, 163 feet. There are numerous islands, many of them capped by resistant beds of basalt appearing as attractive columnar cliffs and bluffs.

During the summer the land to the east of the Inlet is used for calving by the largest surviving herd of caribou, over 150,000 animals. An estimated four to five hundred musk oxen are distributed around the Inlet; recently they have been seen in herds of about fifty animals. There are thriving wolf and barren ground grizzly bear populations. About fifty bird species use the Inlet during the summer, including the healthiest surviving population of peregrine falcon in Canada.

The southern part of the Inlet has been listed as a proposed IBP Ecological Site.



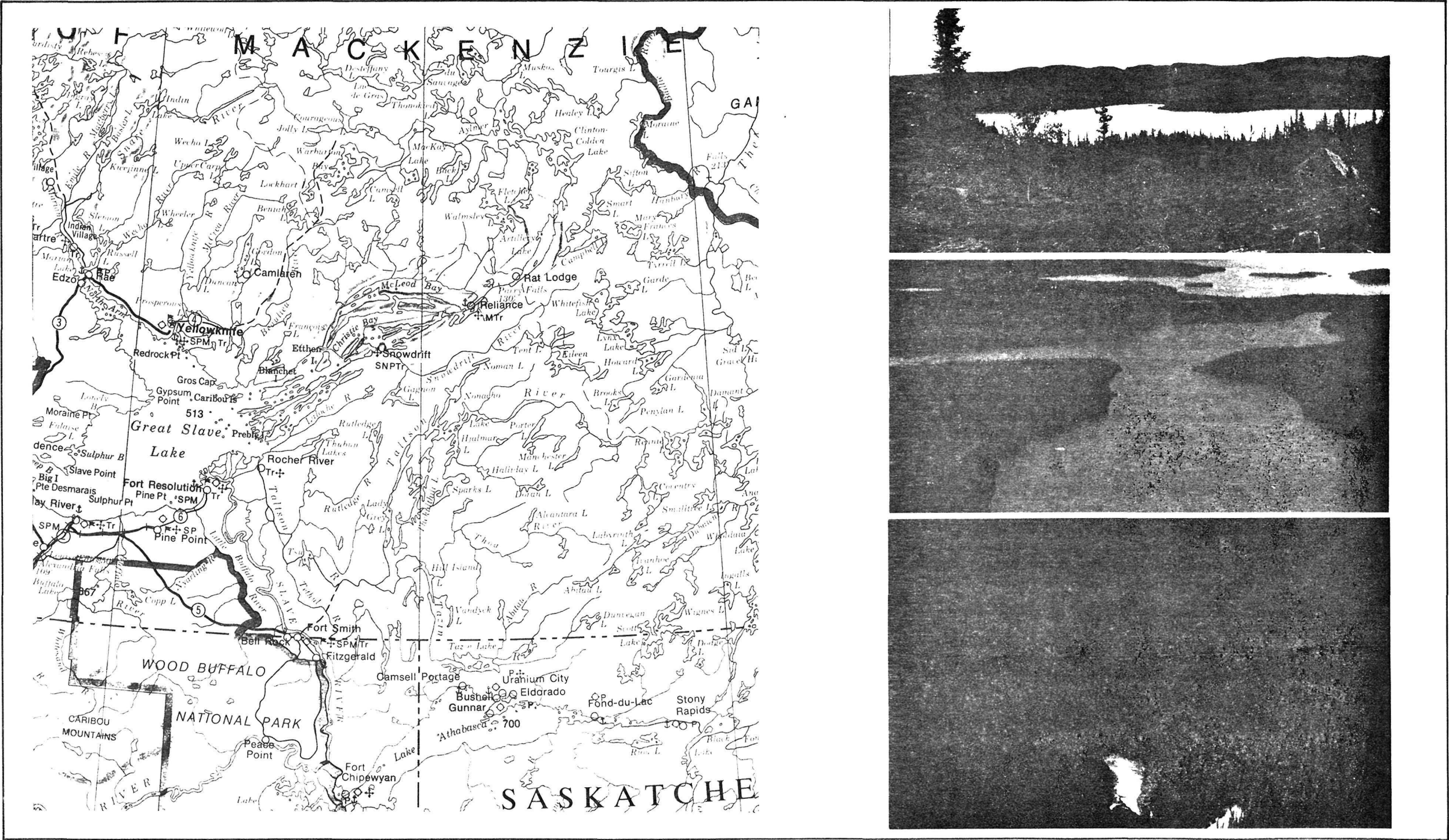
THELON GAME SANCTUARY |

One of the major streams of the Keewatin, the Thelon River, flows through a wide rolling plain which stretches from the Back River in the north to Dubawnt Lake in the south. The area is remarkable for the variety of tundra vegetation and concentration of wildlife. Extensive marshes, dense willow thickets, and black spruce wood lands fringe the River; tundra communities of dwarf-shrub heath, lichen-heath, and sedge meadow occur out on the Thelon Plain. The Hanbury Falls, near the confluence of the Thelon and Hanbury Rivers are 213 feet high.

The largest surviving mainland musk ox population is resident in the area. The Beverly Lake caribou herd migrates across the Thelon each spring and calves north of the River. Barren ground grizzly bears are common, along with wolves, Arctic and red foxes, ground squirrels, and wolverines. Canada geese breed in the area which also has one of the few surviving reasonably vigorous peregrine falcon populations in Canada.

The Thelon Game Sanctuary was originally established to ensure the survival of musk oxen on the mainland after they had been virtually exterminated near coastal settlements. Largely because of the absence of competing claims in the area, this has worked well, even without Game Department personnel on the spot to enforce the regulations. With the recent increase in exploration, this is no longer the case and it seems inevitable that some fresh action must soon be taken to ensure the preservation of this unique and interesting area.

The Thelon River Valley has been listed as a proposed IBP Ecological Site.

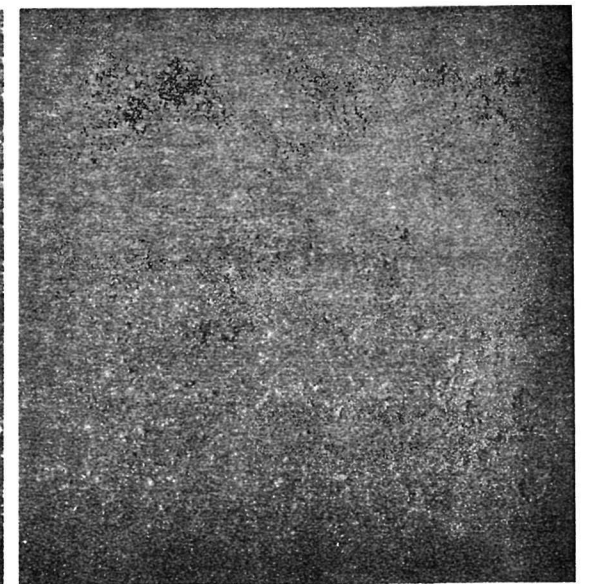
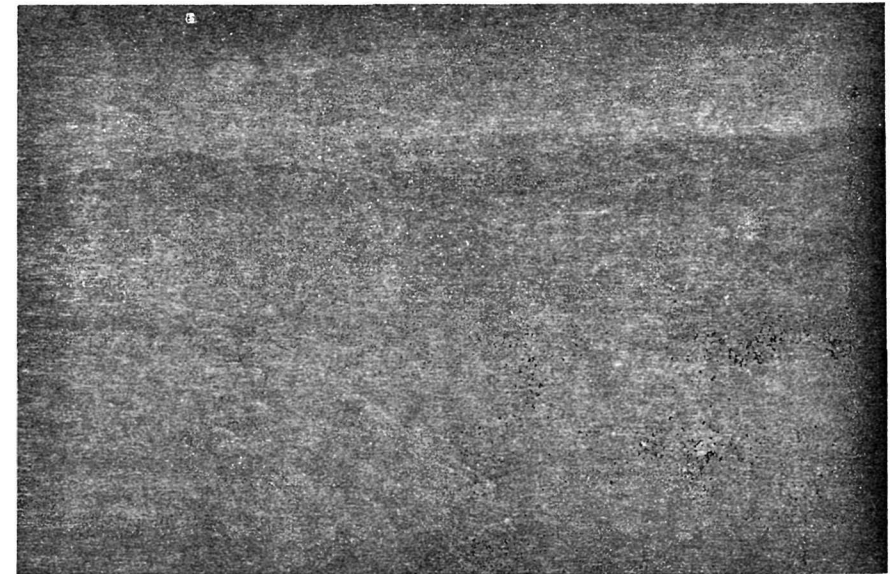
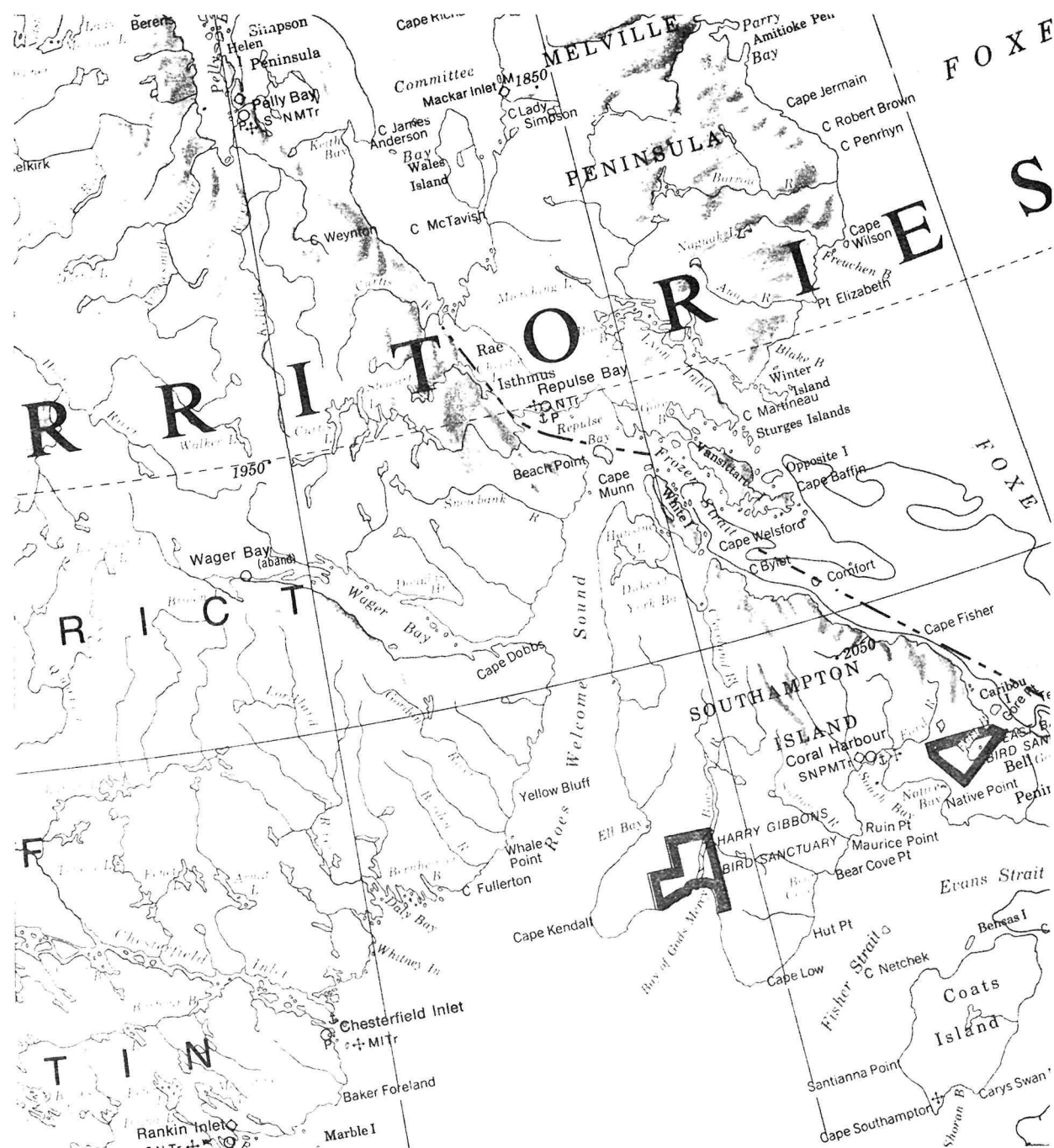


EAST ARM GREAT SLAVE LAKE**J**

The entire area lies within the Canadian Shield. Its surface features are dominated by bedrock, locally modified by glacial action. The bedrock often appears in precipitous cliffs, canyons, and cuerdas, especially along the peninsulas and islands in the East Arm of Great Slave Lake. Around Artillery Lake the relief is more subdued but still rugged. The Lockhart River, connecting Artillery Lake and Great Slave Lake descends 671 feet in sixteen miles, including Parry Falls (130 feet) and Tyrell Falls (85 feet).

Artillery Lake lies across the transition zone between the taiga and the tundra, and the area supports a rich and diverse flora and fauna including moose as well as musk ox, coyote and arctic fox. Barren Ground caribou migrate past the lake in the spring and fall in large numbers and frequently winter in the forest fringe around the East Arm. Peregrine falcon and gyrfalcon breed in the area.

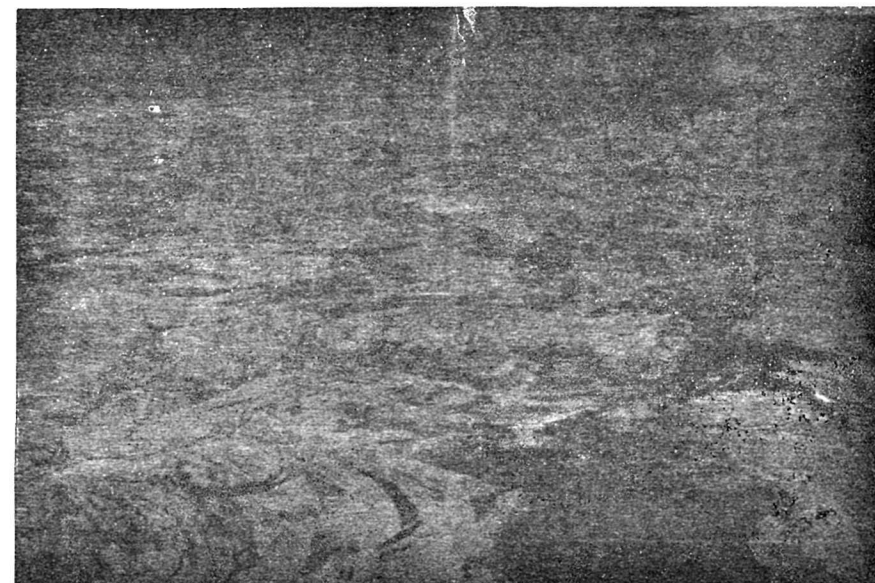
The area has National Park Reserve status at present. In 1970 a five year moratorium on park development was imposed while the Snowdrift Indian Band studied the potential impact of the park on its livelihood.



WAGER BAY K

Wager Bay is a submerged rift valley penetrating a hundred miles into the Canadian Shield on the west coast of Hudson Bay. To the north the topography is typical of the Shield; well-vegetated (tundra) rounded valleys alternating with bare granitic hills. To the south the landscape is more rugged and is distinguished by a series of rapids and falls along stream courses as they descend the rift escarpment to the level of the Bay. The shores of the Bay are most attractive, with grey and pink granite bluffs and islands. The mouth of the inlet is so narrow that tidal pressure is enough to prevent the sea freezing throughout the winter. At the head of the Bay there is a set of tidal reversing falls which are also ice-free all year.

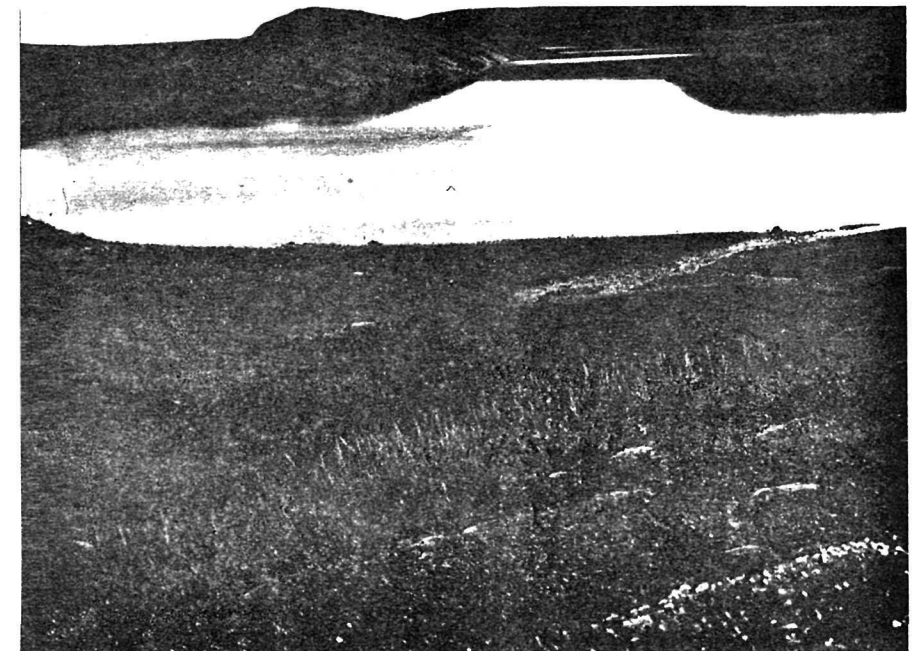
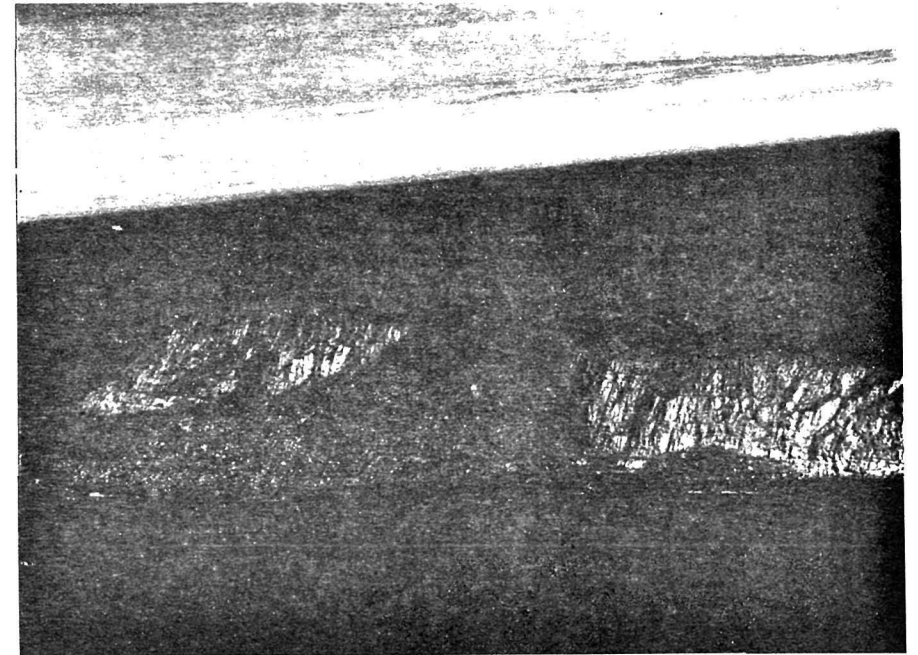
These open leads are probably used by marine mammals as wintering areas. Ringed seal, bearded seal, walrus, beluga, and bowhead whale have all been recorded in the Bay, and it is reputed to support one of the highest concentrations of harbour seal in Arctic waters. There is a major polar bear denning area nearby on Southampton Island and the Bay falls well within their hunting range. During the summer the Kaminuriak caribou herds often migrate as far as the Bay and sometimes a group remains behind in the winter. At one time a large population of muskox frequented the area and there have been intermittent sightings in recent years. The Bay area is thought to be used by the densest mainland population of Arctic hare.



NORTHERN SOUTHAMPTON ISLAND**L**

The area is astride two main natural regions of Canada: the Shield and the Hudson Platform. The Shield part which includes White Island, is rough granite and gneiss topography (1 to 2,000 feet in elevation), dotted with innumerable waterfalls, and offers a very rugged coastline including an outstanding inlier of limestone at Cape Donovan. The Platform part is of low relief, about 350 feet in elevation, where the rock type is limestone. The coastal areas are low and characterized by numerous raised beaches.

Climate in July and August is similar to that of the mainland to the west, i.e. higher daily maximum temperatures and less precipitation than on the mainland to the east or in the southern parts of Hudson's Bay. From a biological standpoint, the area offers much interest. Vegetation is arctic tundra: moss-lichen in the Shield part, moss-heath in the Platform part. Polar bear den in great numbers on the northeast coast and on White Island. Critical peregrine and gyrfalcon nesting areas exist on White Island, around Duke of York Bay and on the northeast coast of Southampton. Large populations of belugas, seals and walrus can be seen in Roes Welcome Sound and Frozen Strait during the summer. Narwhals are frequently sighted in Frozen Strait. Finally there are large numbers of char, lake trout and lake whitefish in Hansine Lake and the Thomsen River.



BELCHER ISLANDS M

The Belcher Islands, located in the centre of Hudson Bay, are comprised of long, narrow, parallel rocky peninsulas which are joined at their extremities. Because of rapid isostatic uplift since the last glaciation, the lagoons which separate the peninsulas such as Lake Kasegalik are no longer connected to the sea, and raised beaches are common throughout the island chain. Whereas the western part of the Belchers are of relatively low relief, the eastern half is characterized by spectacular cuervas which form sea cliffs of 200-300 feet in height. Patterned ground phenomena and other periglacial features occur throughout.

Because of their insular location in the Arctic marine waters of the Hudson Bay Inland Sea, the Belcher Islands represent one of the most southerly occurrence of a truly Arctic biota in Canada. The isolated beaches and tundra ponds are important breeding areas for Canada geese and snow geese, and feeding and resting areas for migratory birds. The cuesta cliffs provide suitable nesting areas for a variety of Arctic sea birds. Arctic marine mammals such as the beluga, ringed seal and bearded seal frequent the surrounding waters. The walrus, near extinction in the area because of hunting pressures, is found in small groups on the low isolated coastal areas and islands. The western part of Kugong, Split, Johnson and Flaherty Islands are used by polar bear during the winter and spring months.

Archaeological evidence of the Thule and the older Dorset and pre-Dorset cultures are distributed along the shoreline.

