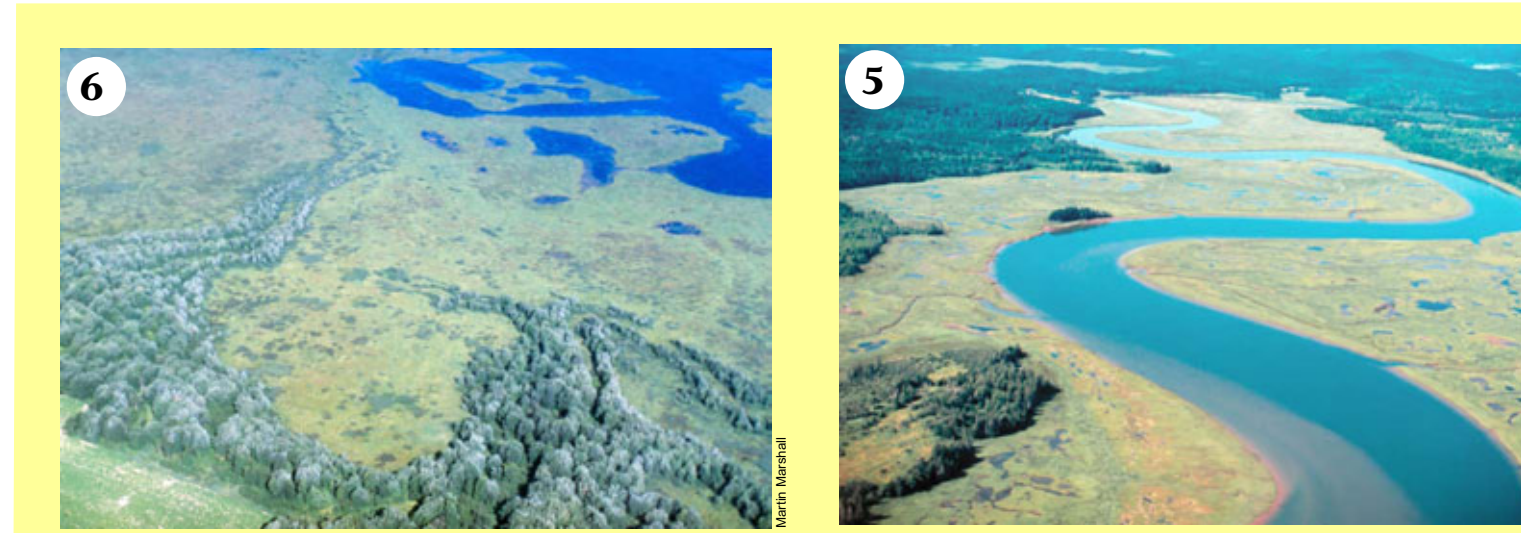
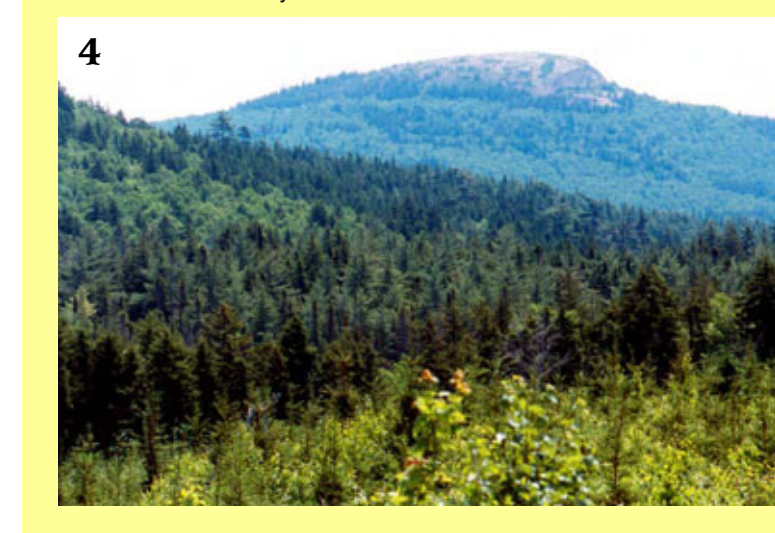
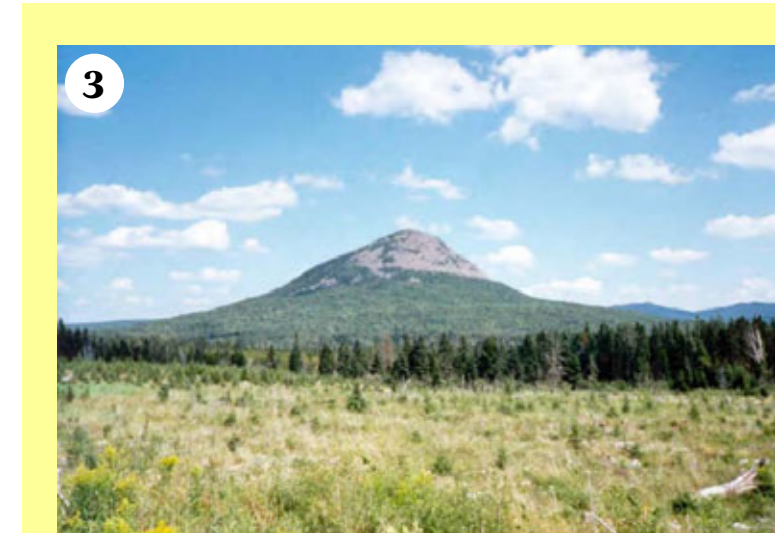
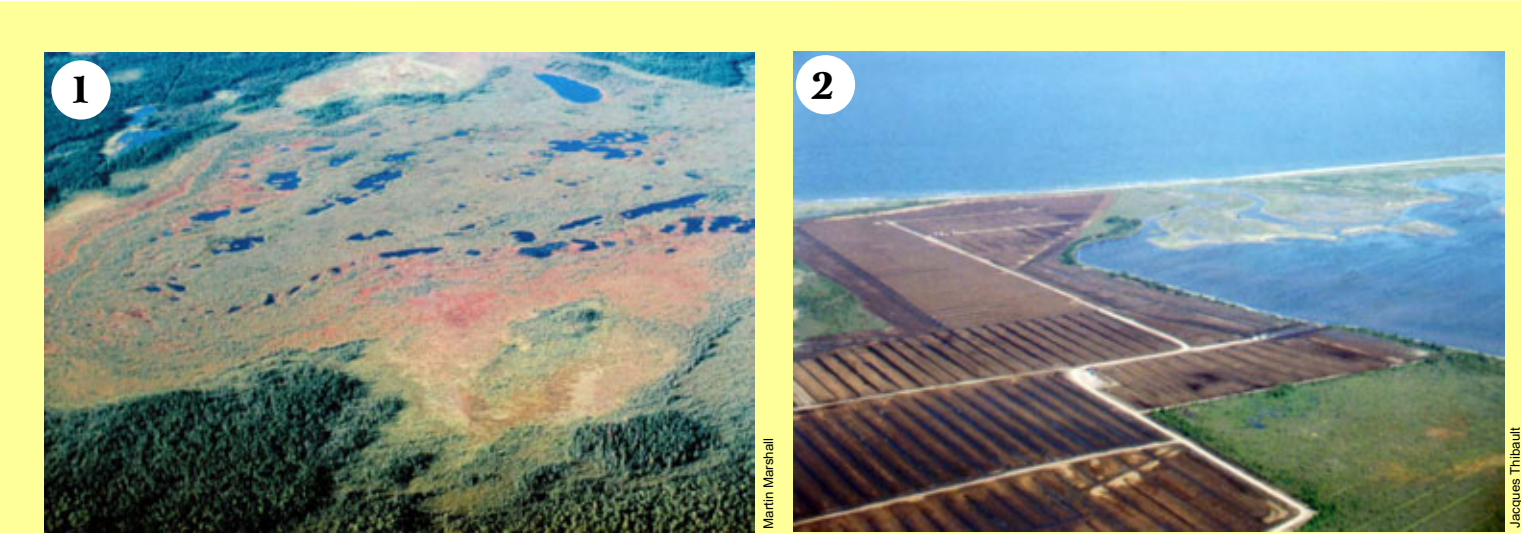
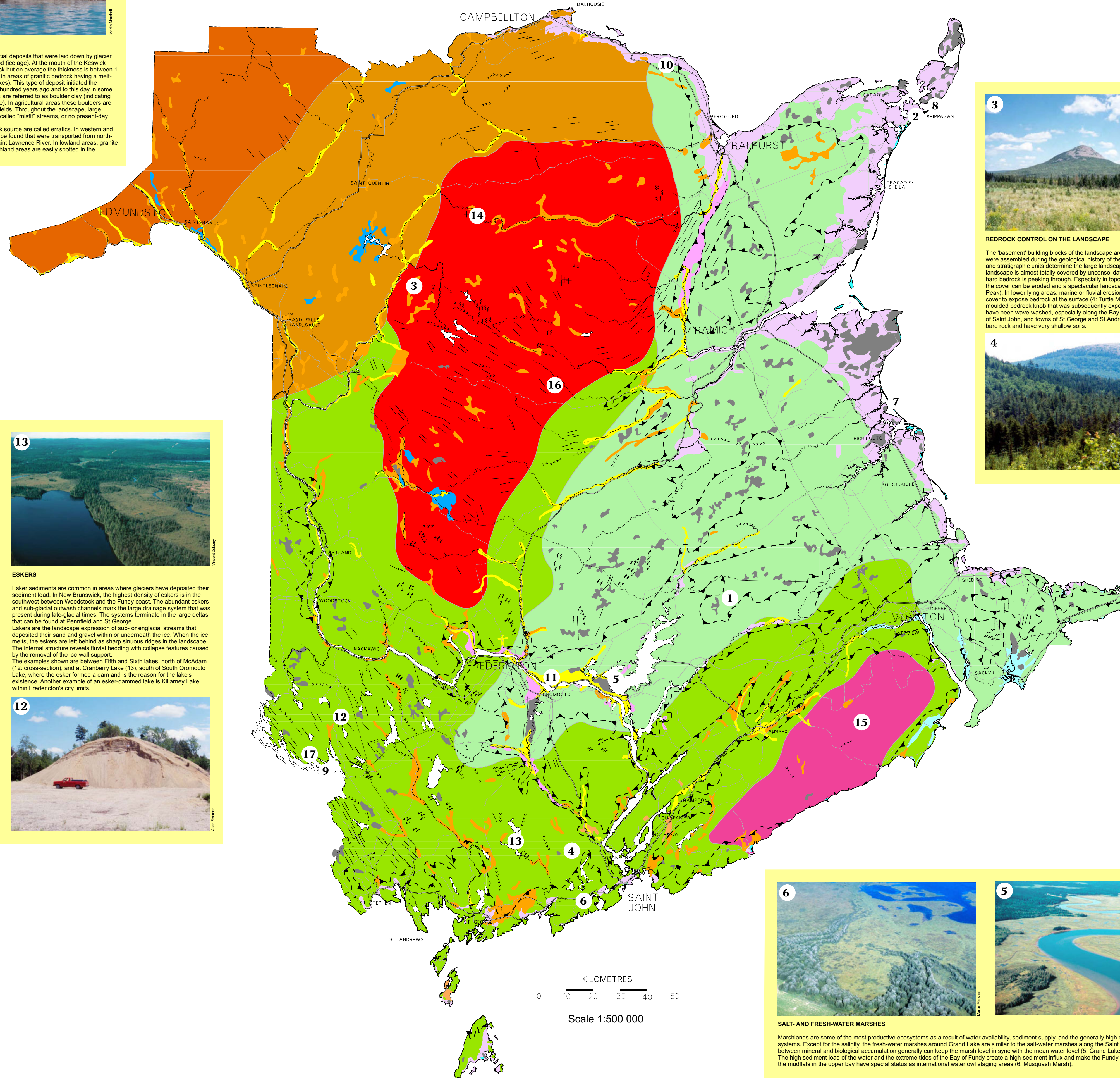
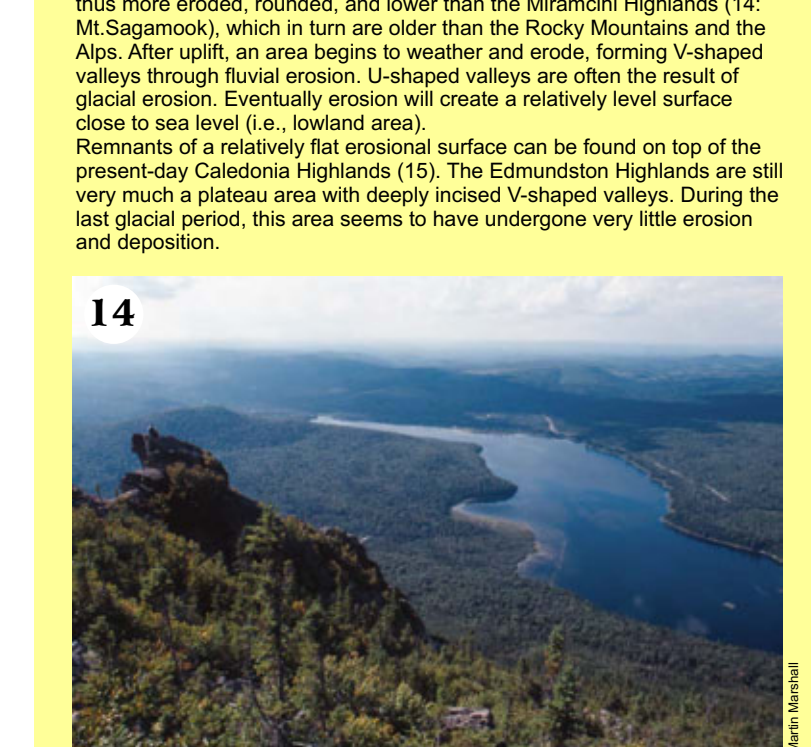
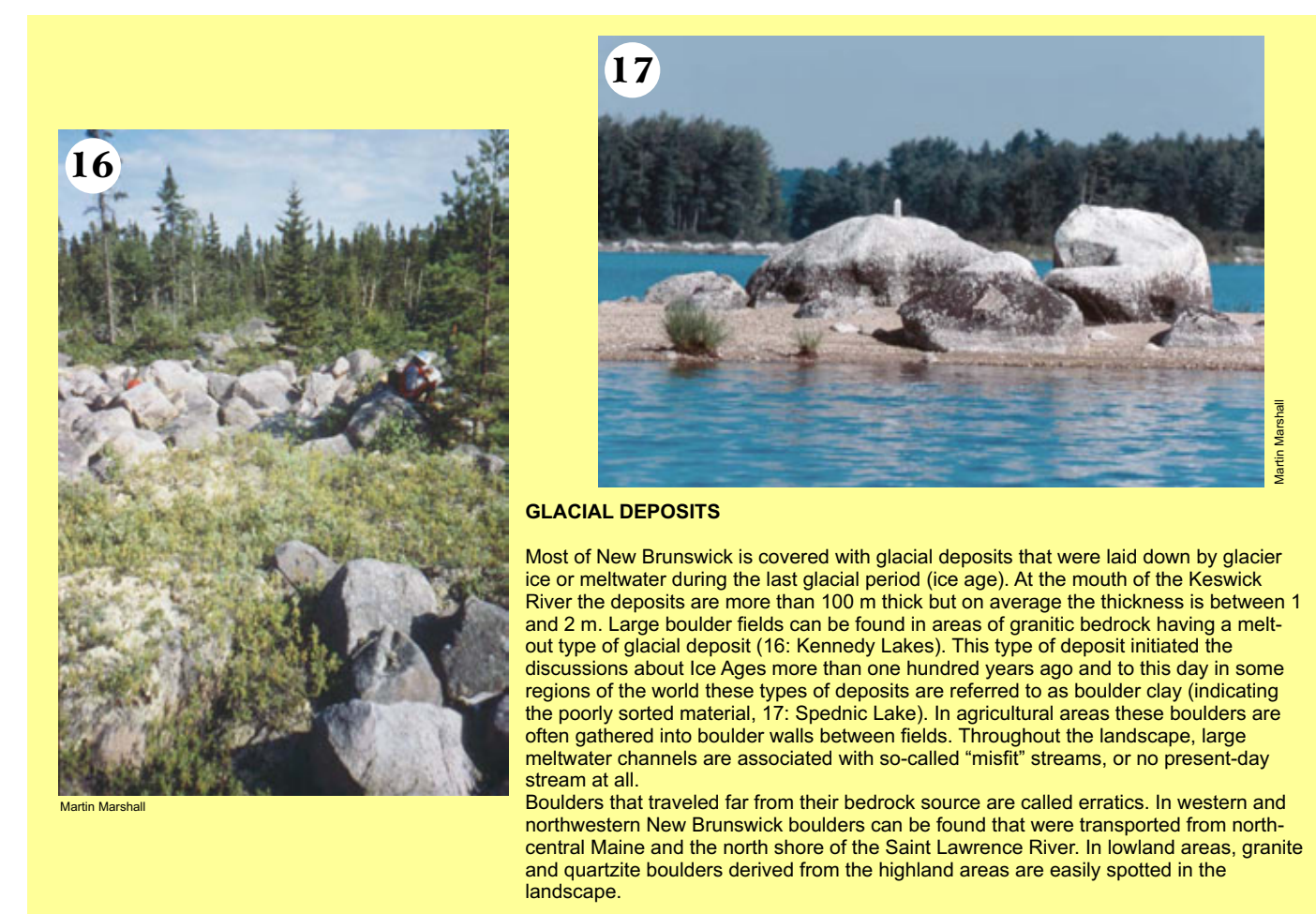


NR-9 Landscape Map of New Brunswick



EDMUNDSTON HIGHLANDS

The Edmundston Highlands are underlain by Silurian-Devonian sedimentary rocks. Elevation is between 360 and 600 m with deeply incised V-shaped valleys. Drainage is determined by sedimentary/structural elements. The area has been subject to glaciation, but glacial deposits are generally very thin (less than 1 m). Erratics from Quebec and the Canadian Shield can be found on the plateau areas. The landscape is largely the result of pre-glacial processes.

CHALEUR UPLANDS

This area, between the Miramichi and Edmundston Highlands, is underlain by Ordovician to Devonian sedimentary and igneous rocks. To the north, it is bordered by a 60-80 m high "escarpment" at the edge of the Edmundston Highlands. These uplands consist of gently rolling plateaus and moderately hilly areas. Relief varies locally from approximately 50 m to 250 m in some of the steeply incised valleys. Glacial deposits can attain thicknesses of more than 5 m, but generally range in thickness between 1 and 2 m. The landscape is greatly modified by glacial action (e.g., streamlined/fluted bedrock, outwash channels). In the north, the uplands abruptly slope toward Chaleur Bay.

MIRAMICHI HIGHLANDS

This is an area of high local relief (490 m maximum, but generally more than 200 m) where there are a number of higher summits, one of them being Mount Carleton (920 m). The Highlands are part of the Appalachian Mountain Range that stretches from Florida to Newfoundland. When it was younger, it may have been as high as the Rocky Mountains are today. Many of the summits show signs of glaciation, but deposits are thin or absent at high elevations. In valleys and sheltered locations, glacial deposits can exceed 10 m. In isolated areas of the highlands, extensive weathered deposits were sheltered locally from glacial erosion and attest to previous eras of deep weathering.

SAINT JOHN RIVER VALLEY/HIGHLAND FOOTHILLS

The area of the middle and lower Saint John River valley, the area between the New Brunswick Lowlands and the Miramichi and Caledonia highlands, and the hilly area in southwestern New Brunswick have several things in common. The landscape in these areas has been modified significantly by glacial and melt-water processes. These areas generally have moderate relief; sand and gravel deposits (in the form of eskers, kames and outwash deltas), melt-water channels, and drumlins and fluted landforms are common. Parts of this landscape were inundated by marine incursion following deglaciation. Present-day floodplains are wide and filled with sand and gravel and organic deposits.

CALEDONIAN HIGHLANDS

The Caledonian Highlands are the remnant of an older mountain-forming episode. The underlying rocks are of metamorphic, sedimentary, and igneous origin and range in age from Pre-Cambrian to Silurian. The landscape has gone through several cycles of uplift and erosion and, as such, it is an old landscape. Locally, there are deposits that find their origin in hot tropical climates in entirely different landscapes. It has been modified by glacial glaciation, when an ice sheet covered all of New Brunswick.

NEW BRUNSWICK LOWLANDS

This low-lying and gently undulating area is largely underlain by Carboniferous sedimentary rocks. These rocks are red and grey sandstone and siltstone (minor conglomerates), and red soils can be found throughout the area. Erratics from the Miramichi Highlands can be found throughout the Lowlands. Local relief does not exceed 100 m and the highest points are around 200 m. The area is characterized by abundant melt-water channels, wide modern flood plains, peat bogs, and wetlands. Glacial deposits are generally thin, but can reach a thickness of more than 5 m locally. The eastern part of this area was inundated as sea levels rose after the glaciers melted. Subsequent rebound of the crust has made it dry land again, but these areas are prone to flooding during high-water events and will be affected in the long term by rising sea level.

QUATERNARY

HOLOCENE

MARINE SEDIMENTS: sand, gravel, silt, clay, minor peat and organic sediment, deposited in beach and intertidal environments at or near present sea level.

Beaches, bars and spits: gravel, sand, minor silt; generally more than 1 m thick.

Intertidal plains and salt marshes: clay, silt, some fine sand, minor peat and organic sediment; generally more than 2 m thick.

ALLUVIAL SEDIMENTS: terraces and floodplains: sand, gravel, some silt, minor clay and organic sediment; deposited as channel, overbank, and floodplain deposits at or near present base level.

ORGANIC SEDIMENTS: bogs, fens, swamps: peat, muck, minor silt and fine sand; generally 1 to 3 m thick; deposited in shallow basins and on poorly drained surfaces.

LATE WISCONSINAN AND/OR EARLY HOLOCENE

LACUSTRINE SEDIMENTS: sand, silt, gravel, and clay deposited in shallow lake basins which were in part formed by retreating Late Wisconsinan ice.

Blankets and plains: sand, silt, minor clay and gravel, patchy thin veneer of organic sediment; generally 0.5 to 3 m thick.

MARINE SEDIMENTS: sand, silt, gravel, and clay; deposited in shallow marine water, locally deep, which submerged coastal areas and sections of many valleys during and following Late Wisconsinan deglaciation.

Blankets and plains: sand, silt, some gravel and clay; generally 0.5 to 3 m thick.

LACUSTRINE AND MARINE SEDIMENTS: undifferentiated.

Blankets and plains: sand, silt, minor clay and gravel, patchy thin veneer of organic sediment; generally 1 to 10 m thick.

GLACIOFLUVIAL SEDIMENTS: sand, gravel, minor silt and till, deposited in front of, at the margin of, within or under retreating Late Wisconsinan ice.

Outwash: sand, gravel, minor till. Ice-contact deposits: eskers, kames, and kettle complexes; sand, gravel, minor silt and till, generally more than 2 m thick.

SYMBOLS

--- Drumlin

>>>> Esker (direction of flow known, unknown)

--- Marine limit

--- Moraine ridge

+ Tor

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