

Simplified Surficial Geologic Map of Maine











DEPARTMENT OF CONSERVATION
Maine Geological Survey

Modified from Thompson, W. B.,
and Borns, H. W., Jr.,
Surficial Geologic Map of Maine,
1985, Maine Geological Survey

Digital cartography by
Marc Loiselle

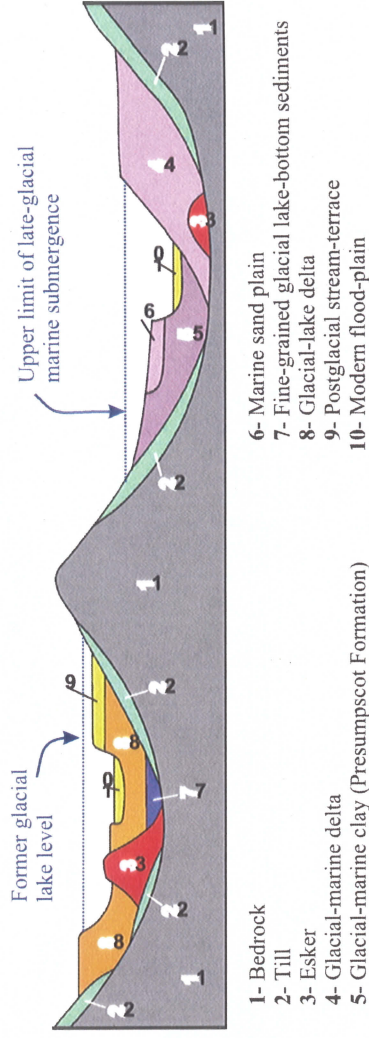
Robert G. Marvinnay
State Geologist

2003

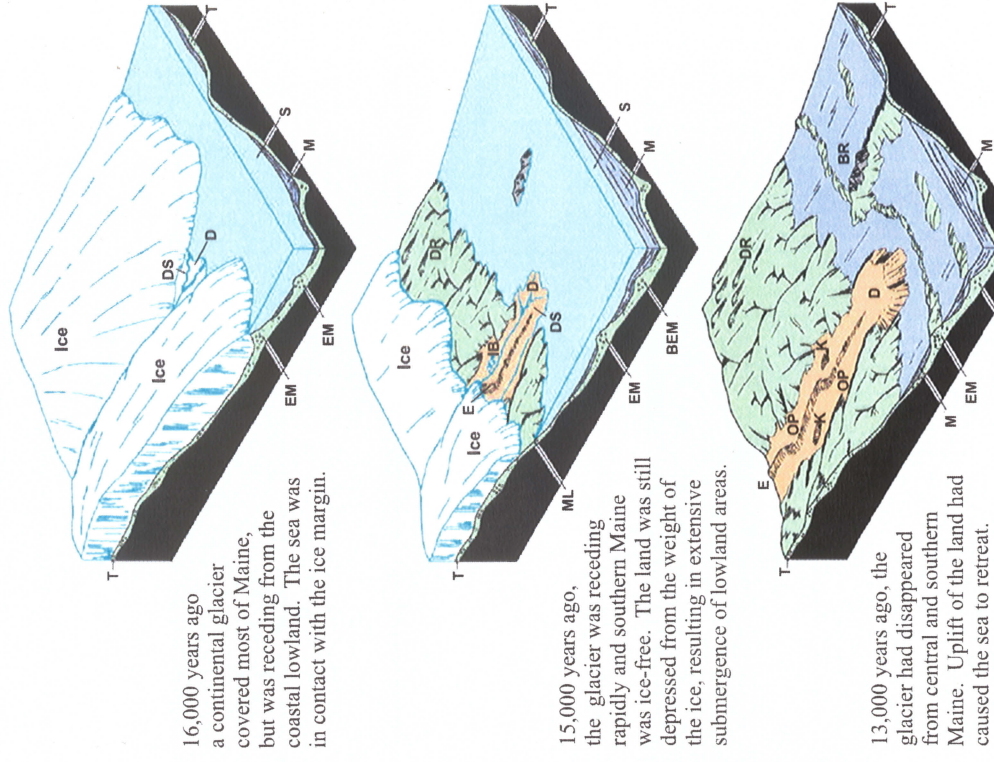
-  Recent stream alluvium, including flood plain, stream terrace, and alluvial fan deposits.
-  Recent swamp, marsh, and bog deposits
-  Glacial lake-bottom deposits
-  Glacial stream deposits and glacial-lake deltas.
-  Glacial-marine deposits (silt and clay)
-  Glacial-marine deposits (sand and gravel)
-  Eskers
-  Till
-  Bedrock and thin glacial sediment cover
-  Marine limit

What will you find if you dig a hole?

This cross section shows common relationships of glacial and postglacial surficial sediments in valleys above (left) and below (right) the marine limit.



Glacial Recession in Southern Maine



16,000 years ago a continental glacier covered most of Maine, but was retreating from the coastal lowland. The sea was in contact with the ice margin.

15,000 years ago, the glacier was retreating rapidly and southern Maine was ice-free. The land was still depressed from the weight of the ice, resulting in extensive submergence of lowland areas.

13,000 years ago, the glacier had disappeared from central and southern Maine. Uplift of the land had caused the sea to retreat.

- BEM - buried end moraine
- BR - bedrock ridge
- D - delta
- DR - drumlins
- DS - distributary stream
- E - esker
- EM - end moraine
- IB - ice block
- K - kettle
- M - marine sediments
- ML - marine limit
- OP - outwash plain
- S - seawater
- T - till



The color map (at left) shows the principal types of sedimentary materials that cover the bedrock in Maine. Most of these materials were left by glacial ice during the Pleistocene "ice age". One of Maine's distinctive glacial legacies is the blanket of marine sediments across southern portions of the state. The last continental ice sheet was so thick and heavy that it depressed the Earth's bedrock crust several hundred feet. Even though global sea level was lower in glacial times, this depression enabled the sea to flood low areas of southern Maine as the glacier receded. The dark-blue line on the map shows the inland limit of marine submergence. Numerous islands existed in the flooded area but are not shown here. The recession of the ice sheet caused the land to rise above the ocean, and a wide variety of sedimentary deposits were released from the melting glacier. These include long esker ridges of sand and gravel formed in tunnels under the ice, shown by the red lines on the map. Maine's eskers and emerged marine features are world-class examples of glacial deposits.

