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# **SOIL ASSOCIATION MAP OF MICHIGAN**

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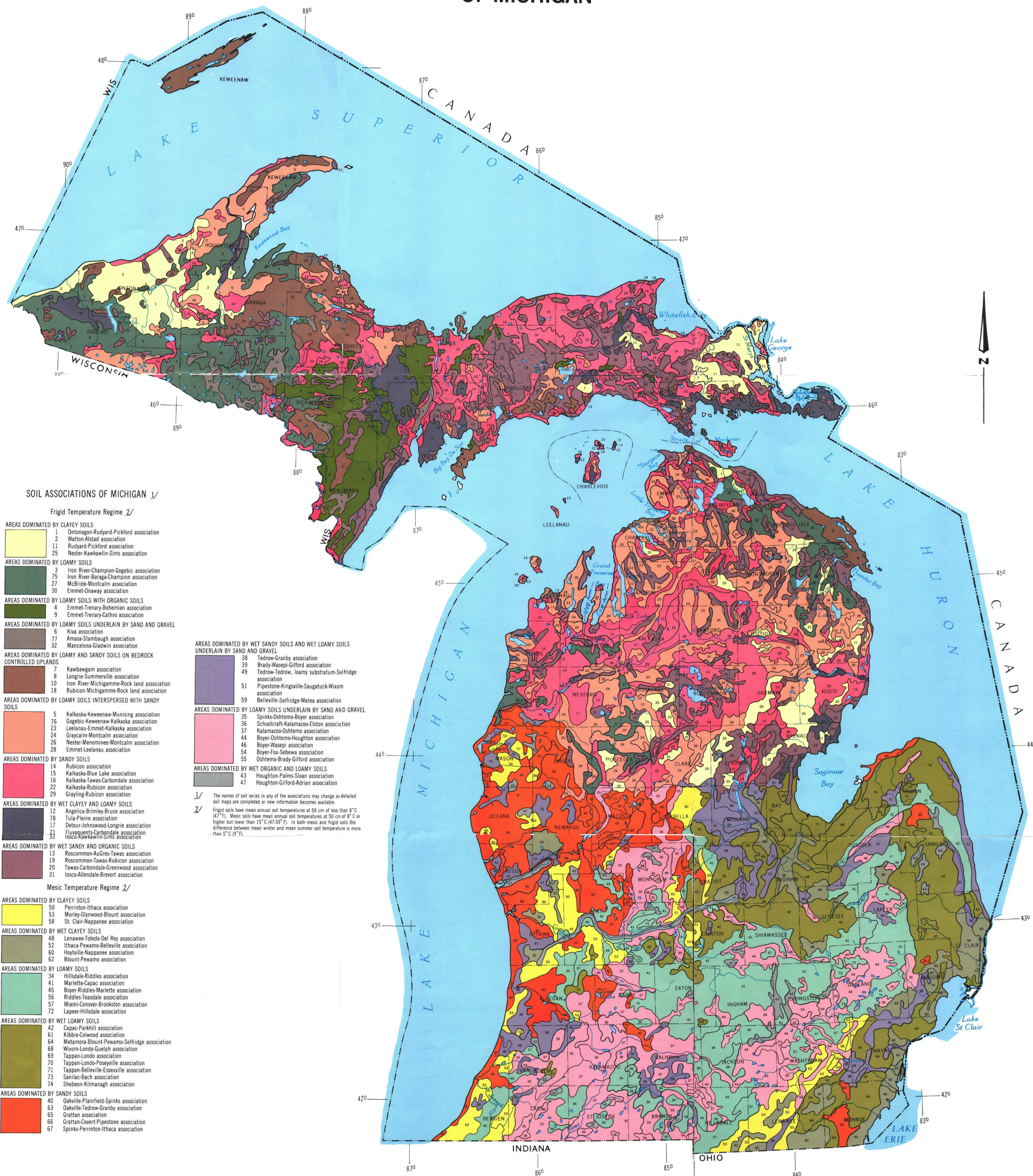
Cooperative Extension Service and Agricultural Experiment Station

and the

**U.S. Department of Agriculture**

Soil Conservation Service

# SOIL ASSOCIATION MAP OF MICHIGAN



## SOIL ASSOCIATIONS OF MICHIGAN 1/

### Frigid Temperature Regime 2/

- AREAS DOMINATED BY CLAYEY SOILS**
- 1 Ontonagon-Rudyard-Pickford association
- 2 Walton-Akstad association
- 11 Rudyard-Pickford association
- 25 Nester-Kawka-Sims association
- AREAS DOMINATED BY LOAMY SOILS**
- 3 Iron River-Champion-Gogebic association
- 75 Iron River-Baraga-Champion association
- 27 McBride-Montcalm association
- 30 Emmet-Onaway association
- AREAS DOMINATED BY LOAMY SOILS WITH ORGANIC SOILS**
- 4 Emmet-Trenary-Bohemian association
- 9 Emmet-Trenary-Cathro association
- AREAS DOMINATED BY LOAMY SOILS UNDERLAIN BY SAND AND GRAVEL**
- 6 Kiva association
- 77 Amasa-Stambaugh association
- 32 Mancelona-Gladwin association
- AREAS DOMINATED BY LOAMY AND SANDY SOILS ON BEDROCK CONTROLLED UPLANDS**
- 7 Kawbawgam association
- 8 Longrie-Summerville association
- 10 Iron River-Michiganme-Rock land association
- 18 Rubicon-Michiganme-Rock land association
- AREAS DOMINATED BY LOAMY SOILS INTERSPERSED WITH SANDY SOILS**
- 5 Kalkaska-Keweenaw-Munising association
- 76 Gogebic-Keweenaw-Kalkaska association
- 23 Leelanau-Emmet-Kalkaska association
- 24 Grayclim-Montcalm association
- 26 Nester-Manominee-Montcalm association
- 28 Emmet-Leelanau association
- AREAS DOMINATED BY SANDY SOILS**
- 14 Rubicon association
- 15 Kalkaska-Blue Lake association
- 16 Kalkaska-Tawas-Carbondale association
- 22 Kalkaska-Rubicon association
- 29 Grayling-Rubicon association
- AREAS DOMINATED BY WET CLAYEY AND LOAMY SOILS**
- 12 Angelica-Brimley-Bruce association
- 78 Tula-Pleine association
- 17 Detour-Johnswood-Longrie association
- 21 Fluvaquents-Carbondale association
- 33 Iosco-Kawka-Sims association
- AREAS DOMINATED BY WET SANDY AND ORGANIC SOILS**
- 13 Roscommon-AuGres-Tawas association
- 19 Roscommon-Tawas-Rubicon association
- 20 Tawas-Carbondale-Greenwood association
- 31 Iosco-Allendale-Brevort association

### AREAS DOMINATED BY WET SANDY SOILS AND WET LOAMY SOILS UNDERLAIN BY SAND AND GRAVEL

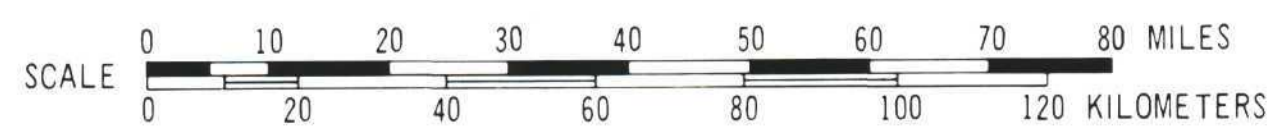
- 38 Tedrow-Granby association
- 39 Brady-Wasepi-Gifford association
- 49 Tedrow-Tedrow, loamy substratum-Selfridge association
- 51 Pipestone-Kingsville-Saugatuck-Wixom association
- 59 Belleville-Selfridge-Metea association
- AREAS DOMINATED BY LOAMY SOILS UNDERLAIN BY SAND AND GRAVEL**
- 35 Spinks-Oshtemo-Boyer association
- 36 Schoolcraft-Kalamazoo-Elston association
- 37 Kalamazoo-Oshtemo association
- 44 Boyer-Oshtemo-Houghton association
- 46 Boyer-Wasepi association
- 54 Boyer-Fox-Sebewa association
- 55 Oshtemo-Brady-Gifford association
- AREAS DOMINATED BY WET ORGANIC AND LOAMY SOILS**
- 43 Houghton-Palms-Sloan association
- 47 Houghton-Gifford-Adrian association

1/ The names of soil series in any of the associations may change as detailed soil maps are completed or new information becomes available.  
2/ Frigid soils have mean annual soil temperatures at 50 cm of less than 8°C (47°F). Mesic soils have mean annual soil temperatures at 50 cm of 8°C or higher but lower than 15°C (47-59°F). In both mesic and frigid soils the difference between mean winter and mean summer soil temperature is more than 5°C (9°F).

### Mesic Temperature Regime 2/

- AREAS DOMINATED BY CLAYEY SOILS**
- 50 Perrinton-Ithaca association
- 53 Morley-Glynwood-Blount association
- 58 St. Clair-Nappanee association
- AREAS DOMINATED BY WET CLAYEY SOILS**
- 48 Lenawee-Toledo-Del Rey association
- 52 Ithaca-Pewamo-Belleville association
- 60 Hoytville-Nappanee association
- 62 Blount-Pewamo association
- AREAS DOMINATED BY LOAMY SOILS**
- 34 Hillsdale-Riddles association
- 41 Marlette-Capac association
- 45 Boyer-Riddles-Marlette association
- 56 Riddles-Teasdale association
- 57 Miami-Conover-Brookston association
- 72 Lapeer-Hillsdale association
- AREAS DOMINATED BY WET LOAMY SOILS**
- 42 Capac-Parkhill association
- 61 Kibbie-Cowwood association
- 64 Metamora-Blount-Pewamo-Selfridge association
- 68 Wixom-Londo-Guelph association
- 69 Tappan-Londo association
- 70 Tappan-Londo-Poseyville association
- 71 Tappan-Belleville-Essexville association
- 73 Sanilac-Bach association
- 74 Shebeon-Kilmanagh association
- AREAS DOMINATED BY SANDY SOILS**
- 40 Oakville-Plainfield-Spinks association
- 63 Oakville-Tedrow-Granby association
- 65 Grattan association
- 66 Grattan-Cover-Pipestone association
- 67 Spinks-Perrinton-Ithaca association

SOURCE:  
SCS FAMILY OF MAPS DRWG.  
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ALBERS EQUAL AREA PROJECTION



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# SOIL ASSOCIATIONS OF MICHIGAN

Map compiled by the Cooperative Extension Service and Agricultural Experiment Station of Michigan State University and Soil Conservation Service, United States Department of Agriculture.

## Introduction

Soil is the collection of natural bodies in the earth's crust that supports living plants. By natural bodies is meant that they were formed by natural processes rather than by artificial means. Soils have depth as well as width and length which can be observed at the land surface. Each of these natural bodies is a soil series. Soil series are groups of soil bodies which have similar physical, chemical, and biological properties. Each soil series is named for a town or other geographical feature near the place where the soil series was first recognized.

Soils differ because of five factors: (1) parent material; (2) topography and natural drainage; (3) natural vegetation; (4) climate; and (5) length of time of weathering. Soils are products of these factors, so wherever the factors are the same, the soils will be similar.

Several processes were involved in the formation of horizons in the soils of Michigan. The processes are (1) accumulation of organic matter, (2) leaching of carbonates (lime) and other bases, (3) reduction and transfer of iron, and (4) formation and translocation of silicate clay minerals. In most soils more than one of these processes have been active in the development of the horizons.

Michigan is covered with soils that vary widely in thickness, color, texture, chemical and mineralogical composition. It is impossible to show all of the many soil variations on a map of this scale.

This map shows the soil associations found in Michigan. A soil association is a landscape that has a distinctive proportional pattern of soils. It consists of several major soils and some minor soils, and is named for the major soils. The soils in one association may occur in another association in a different proportional pattern.

The general soil map can be used to compare the suitability of large areas for general land uses. Areas of suitable soils can be identified on the map. Likewise, areas where the soils are not suitable can be identified.

Because of its small scale, the map is not suitable for planning the management of a farm or field or for selecting a site for a road or building or other structure. The soils in any one association differ from place to place in slope, depth, drainage, and other characteristics that affect management.

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