

Welcome

- from the Department of Soil Science
- from the College of Agricultural and Life Sciences
- from the University of Wisconsin-Madison
- from the State of Wisconsin

Department of Soil Science

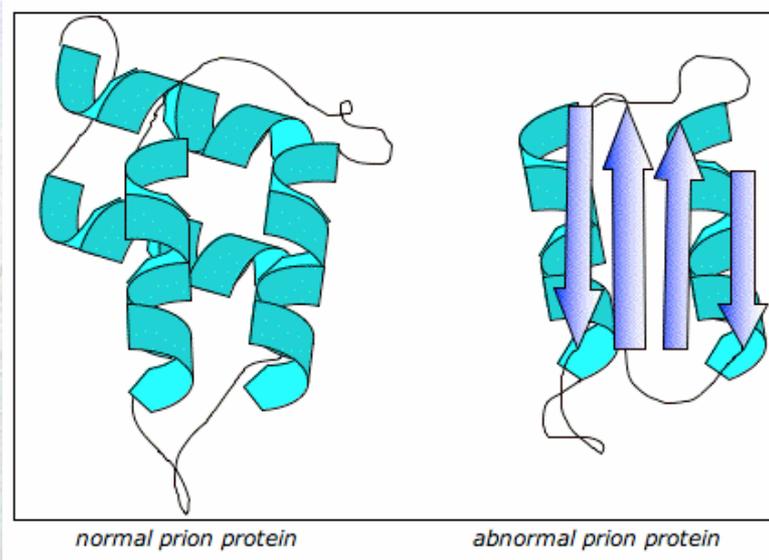
- 21 faculty, ~60 support and scientific staff
- Instruction:
 - 25 undergraduates, ~40 graduate students
 - 40 “timetable” courses and short courses
- Outreach:
 - cooperative extension - fertility, soil and water management, agrometeorology, agroecology
 - Soil and Plant Analysis Laboratory
 - Nonpoint source pollution project



Department of Soil Science

- Research

- Soil physics, soil and water management (Lowery, Norman, Kung, Bland)
- Soil chemistry, fate and transport of contaminants (Barak, Helmke, Pedersen, Blear)
- Soil biology, microbial ecology (Balsler, Balster, Hickey, Long)
- Fertility, nutrient management, turfgrass (Bundy, Laboski, Soldat)
- Pedology, landscape analysis (Stiles, Bockheim, Madison, McSweeney, Ventura, Zhu)



College of Agricultural and Life Sciences

- 310 faculty, 696 academic staff and 664 support staff
- 3146 undergraduates, 30,000 alumni
- Started in 1862 with the Morrill Act
- \$160 million annual research budget (approx)
- More than 75% of UW's patent income and 20% of its disclosures are directly connected to CALS

College of Agricultural and Life Sciences

- 22 Departments, led by Dean Molly Jahn
- 14 Agricultural Research Stations



University of Wisconsin-Madison

- “Flagship” of UW system (26 campuses)
- \$2.4 billion operation
- 42,000 students
- 2000 faculty, 16,000 employees
- 900 acres along Lake Mendota
- top-ranked public university in research support



University of Wisconsin-Madison

- Other facilities:
 - University Research Park
 - University Ridge Golf Course
 - UW Arboretum



State of Wisconsin - “Forward”

- 5.55 million people (and even more cows!)
- 66,000 square miles
 - 44% forest, 38% agriculture, 16% lakes and rivers
- Diverse Economy:
 - 32% industrial, 32% “white collar”, 33% service, 3% resource-dependent



Natural History of Wisconsin

Ecology and Natural Resources Collection



◀ Volume ▶

Go to page

Description

Soils of Wisconsin

Source:

Hole, Francis Doan, 1913-2002

Soils of Wisconsin

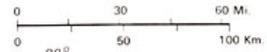
Madison, Wisc.: University of Wisconsin Press, 1976

URL to cite for this work: <http://digital.library.wisc.edu/1711.dl/EcoNatRes.Hole01>

GENERALIZED SOIL REGIONS AND LANDFORMS OF WISCONSIN

UNIVERSITY OF WISCONSIN - EXTENSION
Geological and Natural History Survey

1971



Legend

- Soils of the . . .
- A Southwest Ridges and Valleys
 - B Southeast Upland
 - C Central Sandy Uplands and Plains
 - D Western Sandstone Uplands, Valley Slopes and Plains
 - E Northern and Eastern Loamy Reddish Drift Uplands and Plains
 - F Northern Silty Uplands and Plains
 - G Northern Loamy Uplands
 - H Northern Sandy Uplands and Plains
 - I Northern and Eastern Clayey Reddish Drift Uplands and Plains
 - J Major Wetlands

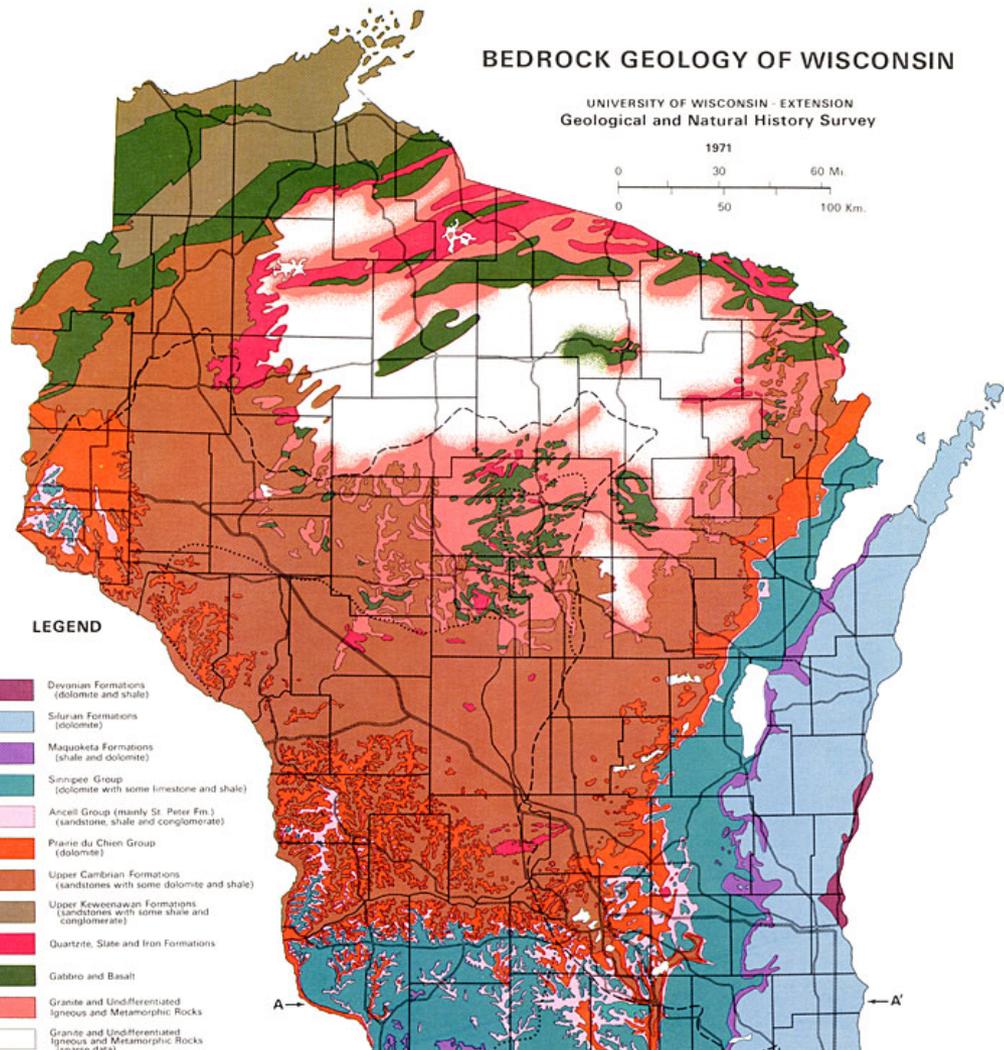
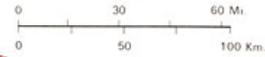
Soil regions by Francis D. Hole. Relief by David A. Woodward



BEDROCK GEOLOGY OF WISCONSIN

UNIVERSITY OF WISCONSIN - EXTENSION
Geological and Natural History Survey

1971



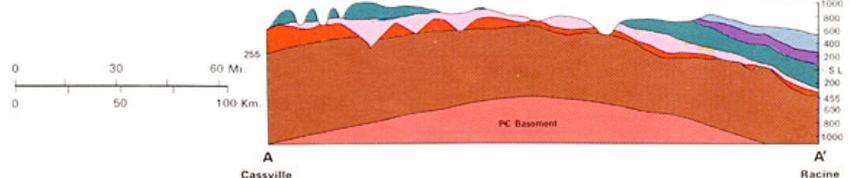
LEGEND

- | | | |
|--|-------|--|
| DELRAN-DIVISION | ■ | Devonian Formations (dolomite and shale) |
| SILURIAN | ■ | Silurian Formations (dolomite) |
| MAQUOKETA | ■ | Maquoketa Formations (shale and dolomite) |
| SINNIPEE | ■ | Sinnipee Group (dolomite with some limestone and shale) |
| ANCILL | ■ | Ancill Group (mainly St. Peter Fm.) (sandstone, shale and conglomerate) |
| PRANIE DU CHIEN | ■ | Prairie du Chien Group (dolomite) |
| UPPER CAMBRIAN | ■ | Upper Cambrian Formations (sandstones with some dolomite and shale) |
| UPPER KEWEEHAWAN | ■ | Upper Keweenaw Formations (sandstones with some shale and conglomerate) |
| QUARTZITE, SLATE AND IRON | ■ | Quartzite, Slate and Iron Formations |
| GABBRO AND BASALT | ■ | Gabbro and Basalt |
| GRANITE AND UNDIFFERENTIATED IGNEOUS AND METAMORPHIC ROCKS | ■ | Granite and Undifferentiated Igneous and Metamorphic Rocks |
| GRANITE AND UNDIFFERENTIATED IGNEOUS AND METAMORPHIC ROCKS (SPARSE DATA) | ■ | Granite and Undifferentiated Igneous and Metamorphic Rocks (sparse data) |
| | --- | Border of Wisconsin (Carv) Drift |
| | | Border of Older Drift |

A

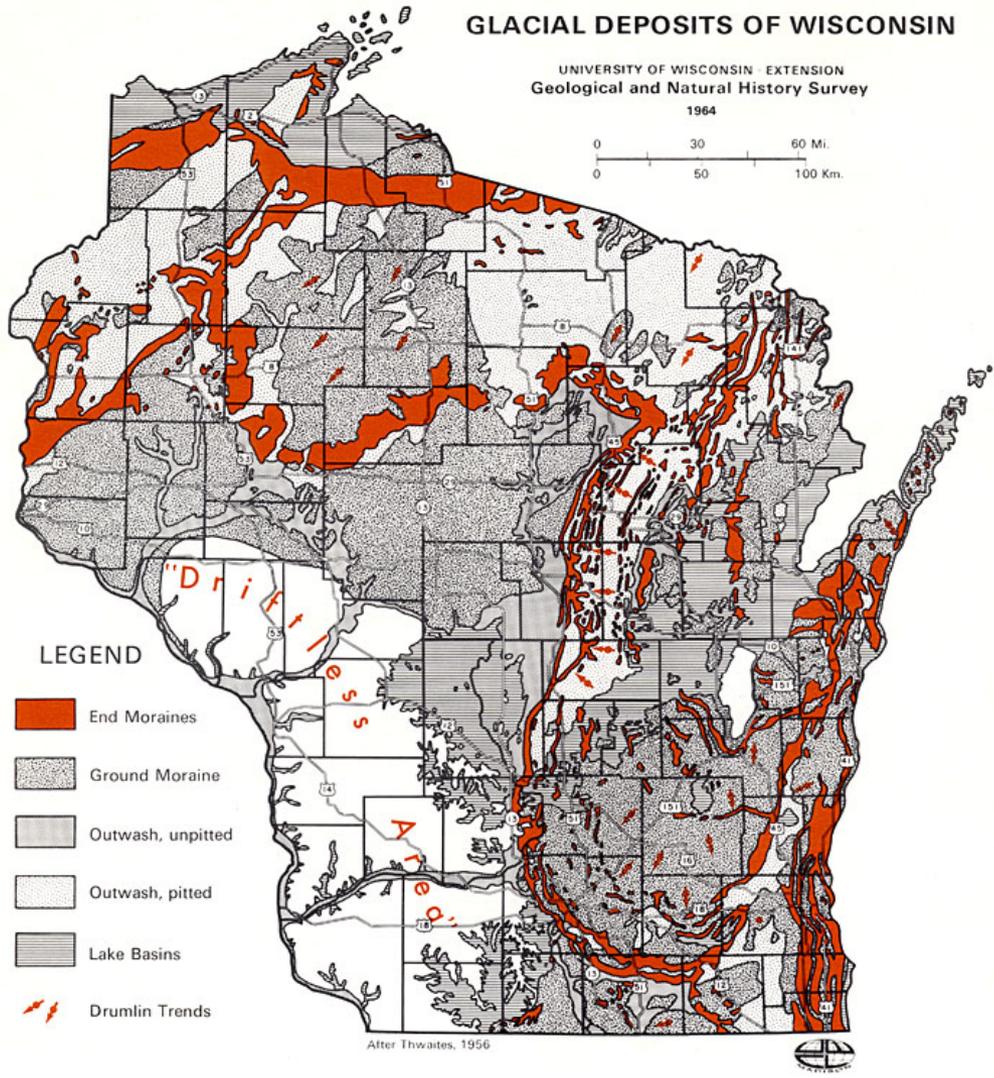
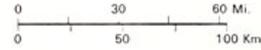
A'

Elevation Above and Below Sea Level In Feet



GLACIAL DEPOSITS OF WISCONSIN

UNIVERSITY OF WISCONSIN - EXTENSION
Geological and Natural History Survey
1964



LEGEND

- End Moraines
- Ground Moraine
- Outwash, unpitted
- Outwash, pitted
- Lake Basins
- Drumlin Trends

After Thwaites, 1956

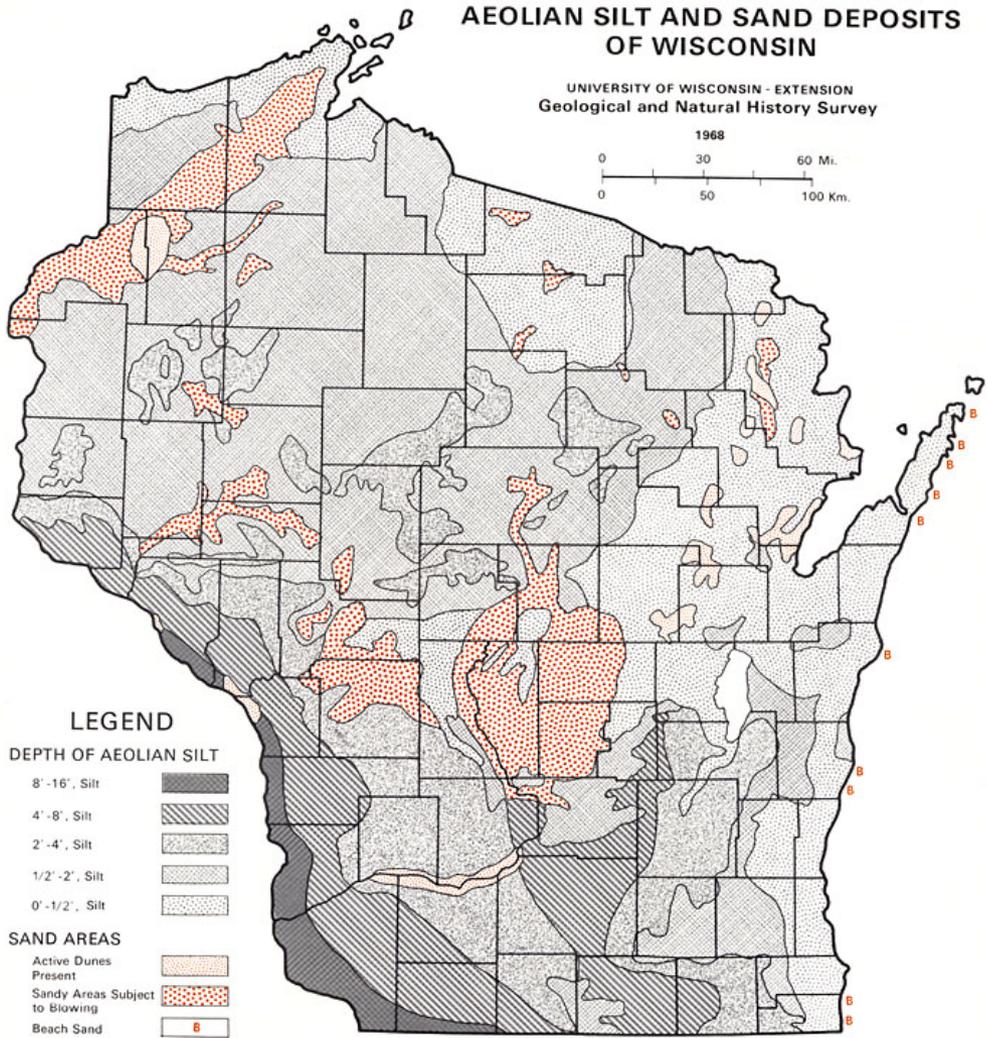
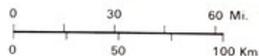


PLATE 4

AEOLIAN SILT AND SAND DEPOSITS OF WISCONSIN

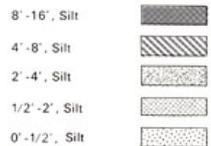
UNIVERSITY OF WISCONSIN - EXTENSION
Geological and Natural History Survey

1968

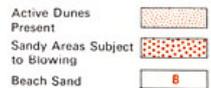


LEGEND

DEPTH OF AEOLIAN SILT



SAND AREAS



Compiled by Francis D. Hole

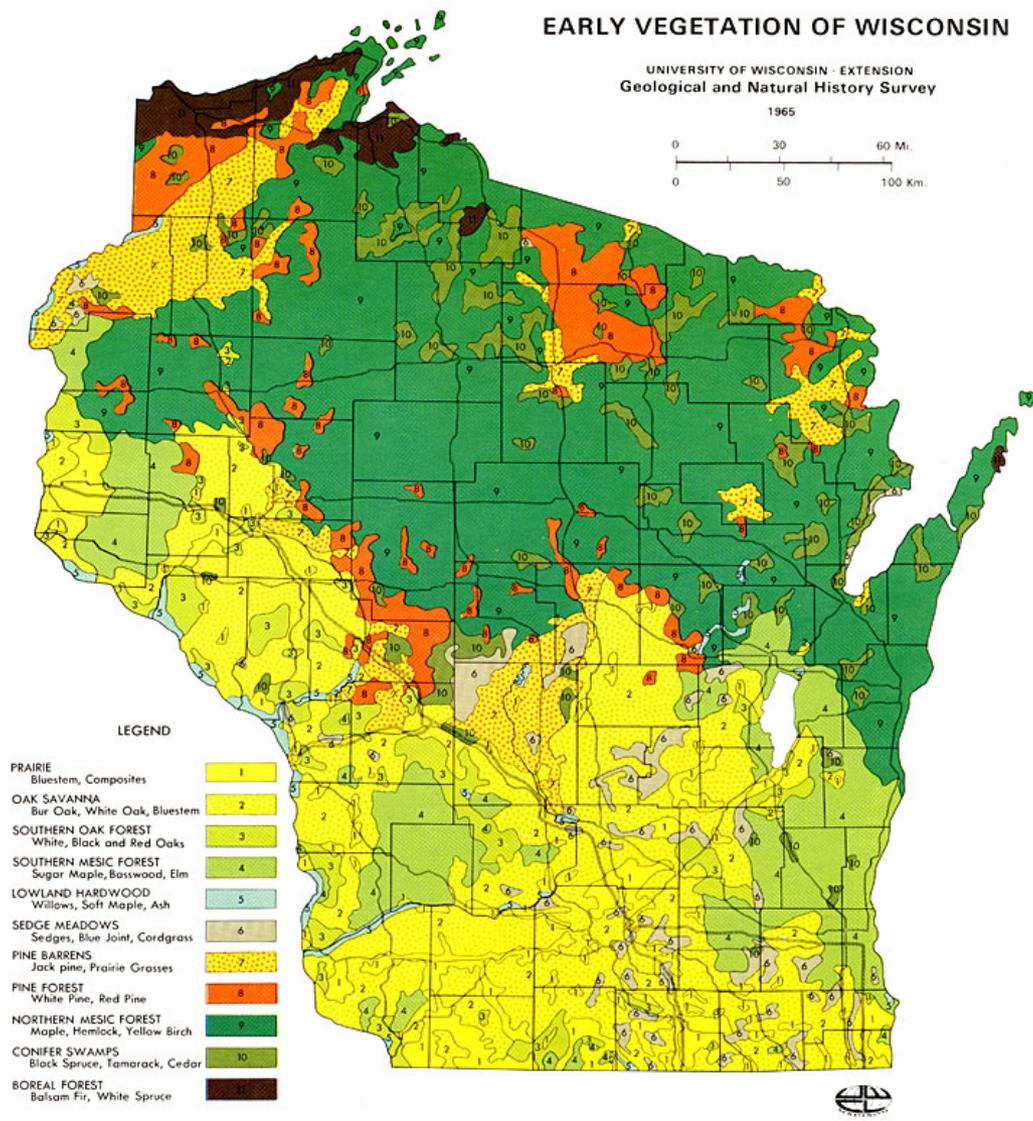
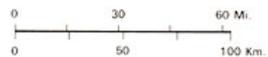


PLATE 5

EARLY VEGETATION OF WISCONSIN

UNIVERSITY OF WISCONSIN - EXTENSION
Geological and Natural History Survey

1965



LEGEND

- PRAIRIE**
Bluestem, Composites
- OAK SAVANNA**
Bur Oak, White Oak, Bluestem
- SOUTHERN OAK FOREST**
White, Black and Red Oaks
- SOUTHERN MESIC FOREST**
Sugar Maple, Basswood, Elm
- LOWLAND HARDWOOD**
Willows, Soft Maple, Ash
- SEDGE MEADOWS**
Sedges, Blue Joint, Cordgrass
- PINE BARRENS**
Jack pine, Prairie Grasses
- PINE FOREST**
White Pine, Red Pine
- NORTHERN MESIC FOREST**
Maple, Hemlock, Yellow Birch
- CONIFER SWAMPS**
Black Spruce, Tamarack, Cedar
- BOREAL FOREST**
Balsam Fir, White Spruce

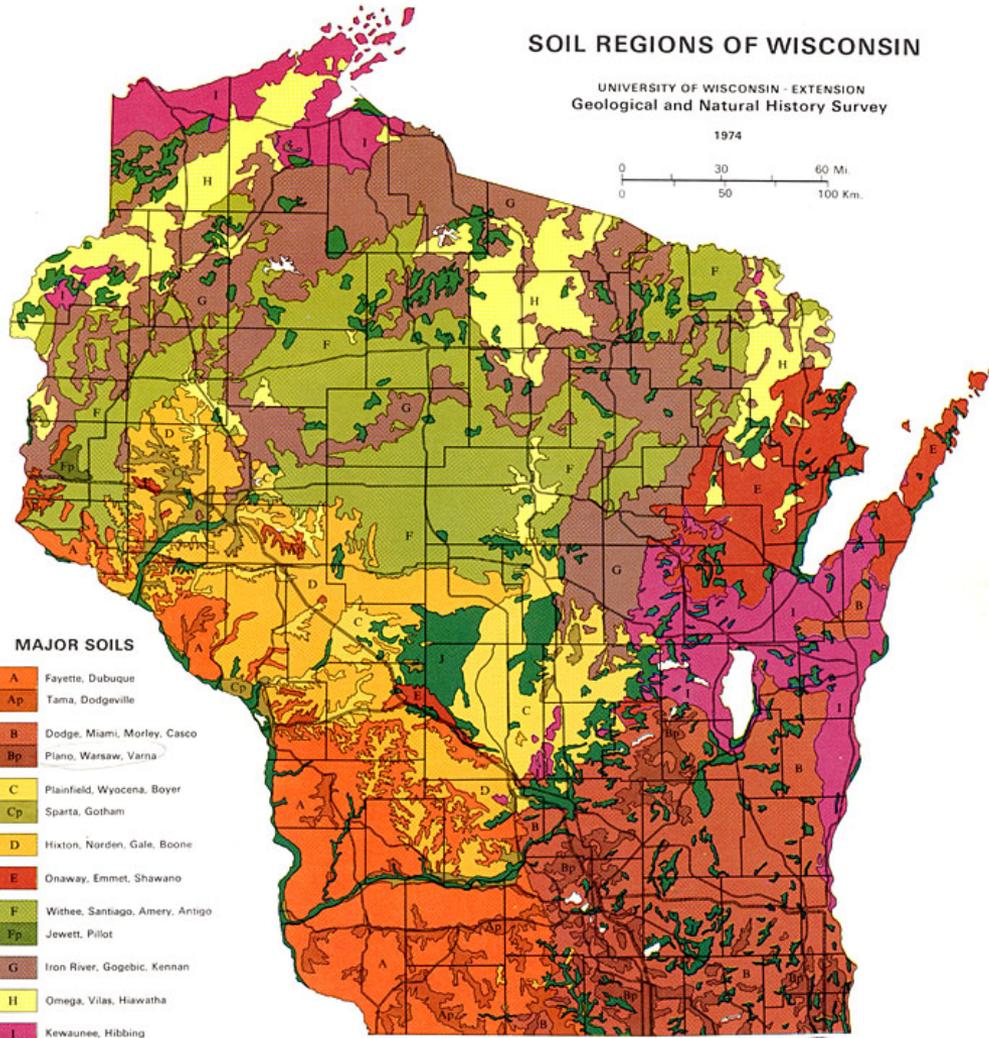
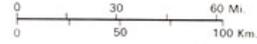


PLATE 6

SOIL REGIONS OF WISCONSIN

UNIVERSITY OF WISCONSIN - EXTENSION
Geological and Natural History Survey

1974



MAJOR SOILS

- A** Fayette, Dubuque
- Ap** Tama, Dodgeville
- B** Dodge, Miami, Morley, Casco
- Bp** Plano, Warsaw, Varna
- C** Plainfield, Wycena, Boyer
- Cp** Sparta, Gotham
- D** Hixton, Norden, Gale, Boone
- E** Onaway, Emmet, Shawano
- F** Withee, Santiago, Amery, Antigo
- Fp** Jewett, Pilot
- G** Iron River, Gogebic, Kennan
- H** Omega, Vilas, Hiawatha
- I** Kewaunee, Hibbing
- J** Pella, Poygan, Newton, Houghton, Arenzville

Subscript p (i.e. Ap, Bp) indicates prairie soil

Compiled by Francis D. Hole



U.S. Department of Agriculture,
Soil Conservation Service and U.S. Forest Service
University of Wisconsin - Madison,
College of Agricultural and Life Sciences, Department of Soil Science

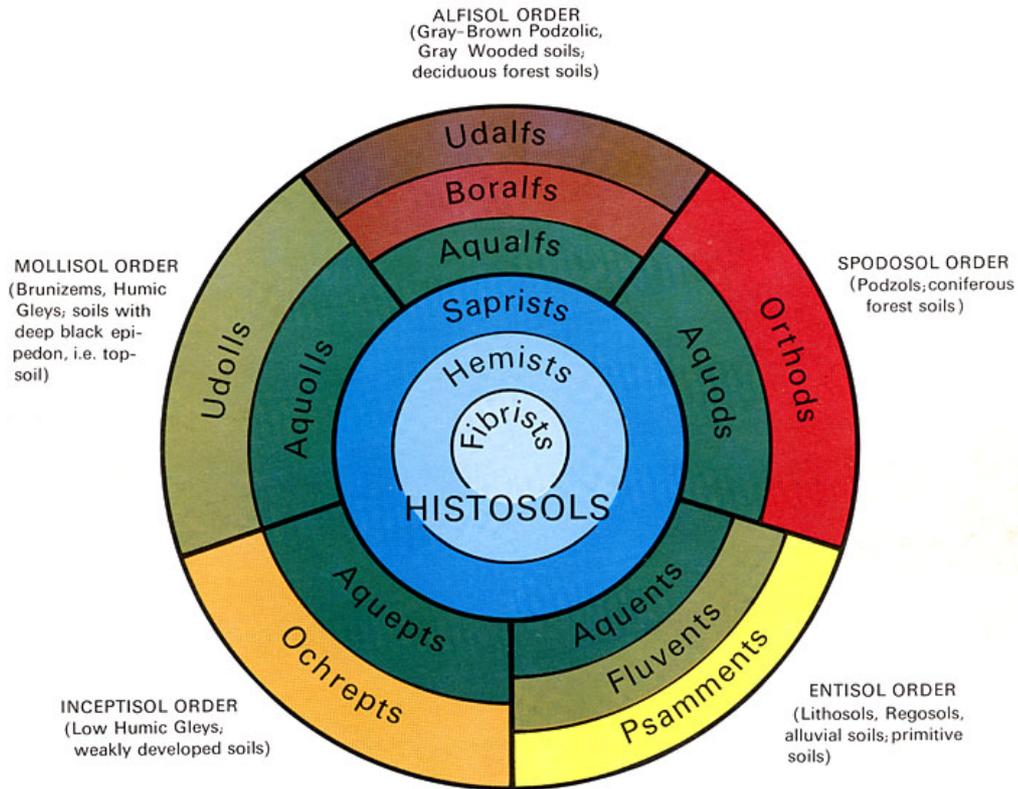


Figure S-1, in color. Circular key to the new USDA soil classification for Wisconsin, coded in color to indicate, in each instance, a key feature of the soil or environment. The very poorly drained organic soils, represented here in blue, are normally found saturated with water in bogs and marshes; the Fibrists are assumed to be the wettest of the three suborders of Histosols. The poorly drained mineral soils (Aqualfs, Aquods, etc.) are colored green here to indicate the abundance of vegetation on them. Alluvial soils (Fluvents) and upland prairie soils (Udolls) are less wet, but even so support rather vigorous plant growth. The sands (Psamments) are droughty; Ochrepts may be thought of as a degree less droughty. Important upland forest soils are portrayed in the three remaining suborders: Podzols (Orthods) commonly have reddish-brown B horizons, Boralfs have less of a reddish tinge in clayey B horizons, and Udalfs have brown to yellowish-brown clayey B horizons. The chart may be visualized as a funnel with the wettest soils at the center and the driest ones at the periphery.

ENJOY WISCONSIN!

(and a little soils humor)

- **Q. During Welcome Week a Department Head asks a new student, "What brought you to the Soils Department?"**
- **"My '97 Chevy", replied the new student.**
- **Q: Why did the chicken cross the road, roll in the dirt and cross the road again?**
- **A: Because it was a dirty double crosser**
- **Q: What's the difference between soil and dirt?**
- **A: Location, Location. Location**
- **Q: What is the difference between a Soil Scientist and a Dirt Doctor?**
- **A: About \$85,000.**
- **Q: What did the pebble say to the big rock.**
- **A: "Some day do you think I'll ever be a little boulder?"**