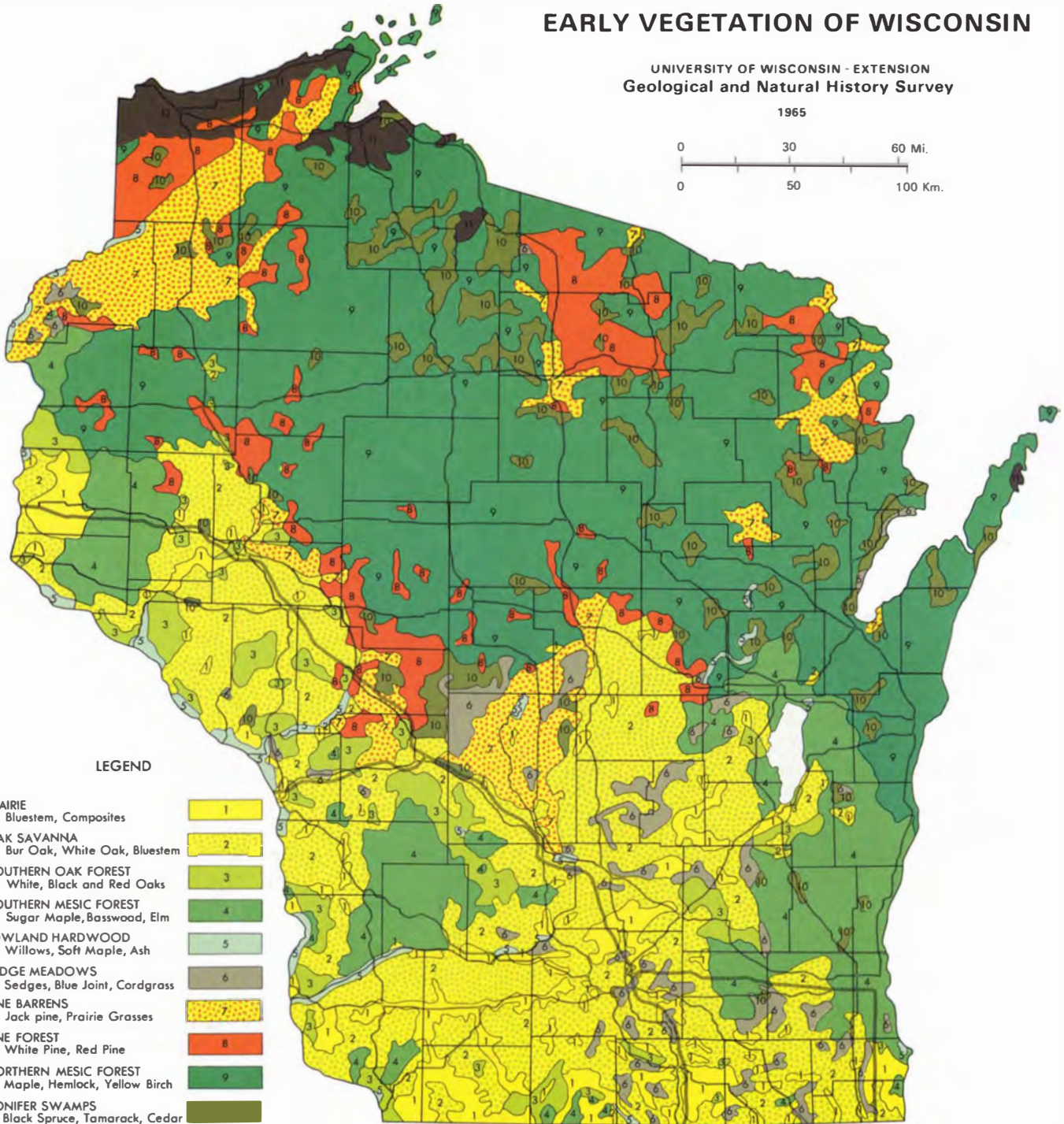
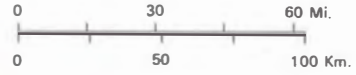


EARLY VEGETATION OF WISCONSIN

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

INTERPRETATION OF THE VEGETATION OF WISCONSIN

This map is based on the original land survey conducted about the middle of the last century. Surveyors were required to place a stake each half mile, identified by notation of nearby trees, and to note briefly the general plant cover of each quarter section. These records have been used to reconstruct the presettlement distribution patterns of plant communities shown on the map.

The plant communities recognized, however, are based on systematic studies of present-day vegetation. The results of these studies are summarized in a recent book (J. T. Curtis, *The Vegetation of Wisconsin*, University of Wisconsin Press, 1959) in which each community, with its history, location, and relationship to other communities and to the environment, is considered in detail. Since some of the factors determining vegetation vary gradually, the vegetation itself varies gradually and boundaries on the map are somewhat arbitrary.

The vegetation of the state is divided into northern and southern floristic provinces by a line that runs in an S-curve northwest from Milwaukee to Hudson. North of this line the vegetation is a broadleaf forest containing conifers—pines, hemlock, spruces, and fir. Southwest of the line, conifers are much less important and are replaced by forests with several species of oaks, and by the prairies—areas dominated by grasses and tall herbs.

Fire has been important in determining almost all of the plant communities and their location. Before the coming of white man, the prairies (1) and the open woodlands burned almost every year. Thus most of the southern part of the state was covered with prairie or oak savanna (2), an orchard-like community with a few large bur or white oaks growing in fields of grass. Only in the more protected places did forests survive. Some of these were oak (3) but many were sugar maple-basswood-slippery elm forests (4). The lowlands were occupied by river bottom forest (5), and sedge meadow (6). With settlement, the fires were stopped, and the oak savannas grew up to the dense white oak-black oak forests found today. Most of the prairies have been cultivated, and at present, with the oak savannas, are among the rarest of our plant communities.

In the northern part of the state, a combination of fire and poor soil resulted in the development of pine barrens (7) on the sandy soils, and pine forests (8) on somewhat better soils. In the absence of fire, the white pine forests gradually changed to the northern equivalent of the sugar maple-basswood forests, a community containing sugar maple, yellow birch and hemlock, with beech added in the eastern counties (9). Also present in the north were large tracts of lowland, with tamarack and black spruce bogs in the wetter areas, and white cedar swamps in drier, but still very moist habitats (10). In the extreme north are local occurrences of the northern conifer forest (11) dominated by fir and spruce.

A comparison of this map with maps of climate, soil, and glacial deposits shows many correspondences, indicating many relationships between vegetation and the environment. The original vegetation was thus determined by the distribution of both climatic and soil factors, modified by fire.

G. Cottam, O. L. Loucks
Department of Botany
The University of Wisconsin