

A METHOD OF REPRESENTING THE NATIVE VEGETATION OF A SMALL AREA

ROBERT J. VOSKUIL

University of Illinois, Urbana, Illinois

A description of the distribution of the native vegetation is an essential part of a geographic regional study and the problem of securing data and presenting it in a usable form is one of the most difficult tasks confronting a geographer. Even when the data are available the problem of presentation of the material remains.

The logical method of presenting this material is in the form of a map. It is the aim, therefore, of this paper to illustrate one way in which the distribution of the native vegetation of a small area may be presented in map form.

This method is well adapted to areas in the Middle West where studies of the native vegetation were made by the General Land Office Survey between 1785 and 1830. Sample or witness trees were recorded and located as to site within square mile sections based on the Ordinance Survey. Their records reveal the species, size, and location of the individual trees.¹

The method to be explained was applied to a study of the native vegetation of Holland Township, Sheboygan County, Wisconsin.² The Survey recorded twenty different species of trees as existing in this area in 1830. The number of times each specie was repeated in the description for each section supplied the percentages of that specie that existed in the area as a whole. By the same method the species and the percentage of each type found in each section of the Township were secured.

The collection and tabulation of such material are valuable aids to the geographer in describing the native vegetation; however, a method of presenting the distribution of these data on a map is desirable.

Figure I shows a way by which findings of such a nature may be put in a usable map form. A circle, drawn in each section, is divided with the desired number

of lines, each line representing a different specie of tree. Species may be grouped to represent classes of trees, such as lowland, upland, etc. The small inner circle is employed to facilitate easier construction and interpretation of the completed figure. Each line is then marked off from the inner circle to the outer circle to represent from 0 to 100 per cent. A point is found on each line to represent the percentage of that particular specie in that section. The total of all the points would then equal 100 per cent. By connecting the points a geometric figure results. This figure indicates the percentage of each type of tree found in the sections of the area. A larger circle may represent the Township and be used as a key for interpreting the smaller circles.

Presentation of the native vegetation by this method allowed relationships to be observed between it and the soils, relief, land types, farmstead classification and other elements of the natural and cultural landscape. Of the twenty different types of trees found in the area, beech and sugar maple composed 54 per cent and specimens were found in every section of the Township. The percentage in individual sections varied from 10 per cent to 87 per cent. Associated with these two types on the well drained uplands of clay loam were black oak, white oak, white ash, ironwood, yellow birch, maple, hickory, hemlock, and butternut. In the transition zones between the uplands and the more poorly drained lowland of silt loam an increase of linden, birch, and elm were present. On the sandy soils along the lake shore considerable areas of white and Norway pine were mixed with the hardwoods. Cedar replaced the more xerophytic conifers on the poorly drained sands. In the swampy area in the south central section of the Township there were more black ash, alder, tamarack, and cedar trees.

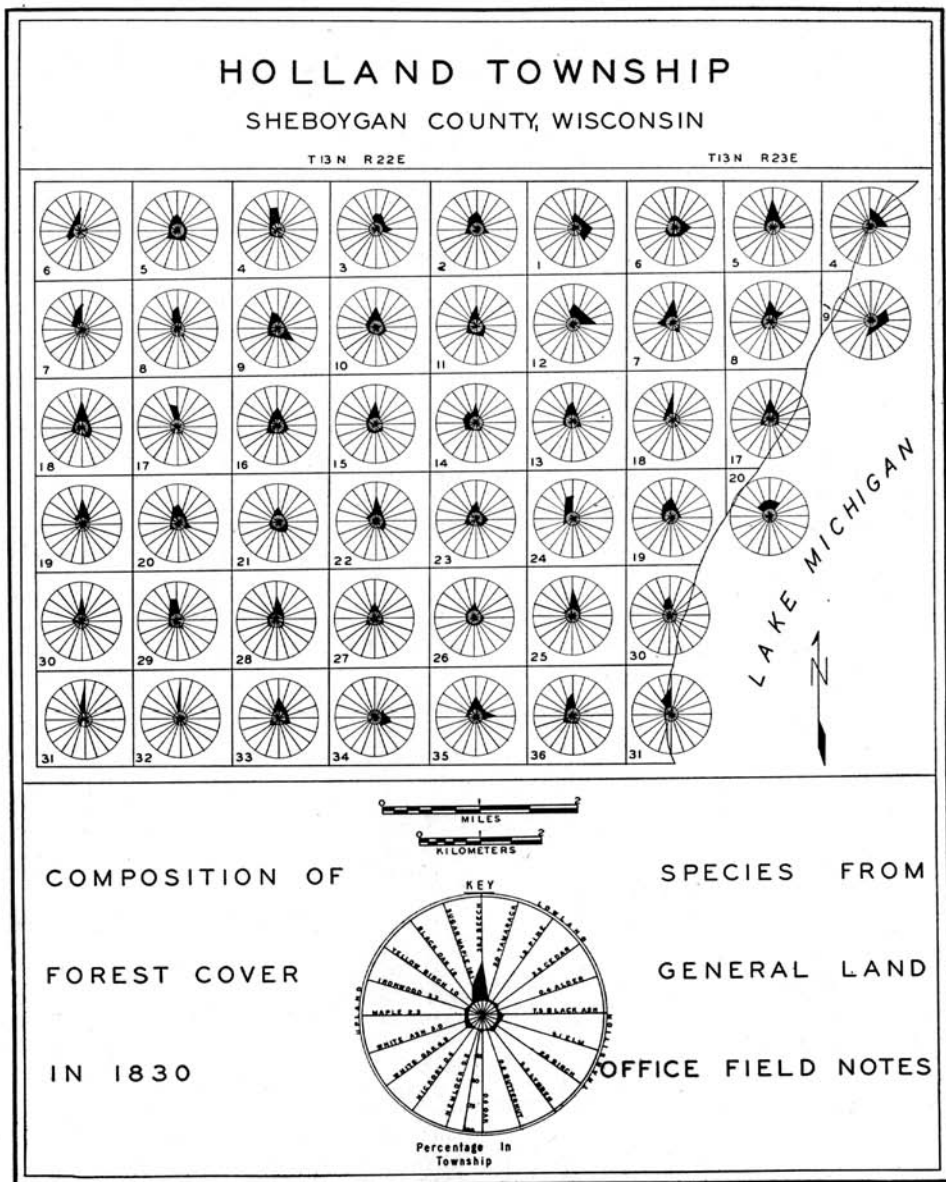


FIG. 1

This method of presentation makes the material gathered by the vegetation inventory of the General Land Office available to a geographer in a usable map form.

¹ Field note-books of the Land Office Survey may usually be found at the County Court House.

² Voskuil, R. J., *A Geographic Study of Holland Township, Sheboygan County, Wisconsin*. Unpublished M. A. thesis, Syracuse University.