

# Names in the Mapping of Original Vegetation

Clarence W. Minkel

**I**N AREAS OF LONG-ESTABLISHED HUMAN SETTLEMENT, extensive cutting, burning, grazing and cultivation may have greatly altered the original plant cover. The reconstruction of the original vegetation patterns in such areas presents a challenging and difficult problem. Several methods have been employed, including the use of place names. It is the purpose of this paper to analyze and evaluate the place-name method.

The place-name method originated in Europe, and has been used extensively there. A detailed vegetation map of Cuba<sup>1</sup> and a sketch map of "Savanna" place names in Panama<sup>2</sup> are among the very few examples of its use in the Western Hemisphere. Although interest in vegetation mapping has been widespread throughout the Americas in recent years, and much has been published in the field of plant geography, the place-name method of mapping has received remarkably little attention. The question, therefore, arises as to the method's reliability and its suitability for more extensive application.

To date the method appears to have been attempted only in areas where the original vegetation is little known. It is, therefore, difficult to determine the reliability of either the resulting maps or of the place-name method. In an area where the original vegetation is reasonably well known, such as the state of Minnesota, the known distribution of vegetation types can be compared with the pattern revealed by place names. This comparison permits an objective evaluation of the place-name method.

Several advantages accrue from the choice of this state as a testing ground. In the first place, Minnesota comprises three vegeta-

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<sup>1</sup> Leo Waibel, "Place Names in the Reconstruction of the Original Vegetation of Cuba," *Geographical Review*, Vol. 33 (1943) pp. 376-396.

<sup>2</sup> Robert S. Platt, "Items in the Regional Geography of Panama," *Annals of the Association of American Geographers*, Vol. 28 (1938) pp. 13-36.

tion regions sufficiently distinct to be recognized even on very small scale maps (fig. 1)<sup>3</sup>. A coniferous forest occupies the northeast, prairie grasslands predominate in the southwest, and a belt of deciduous hardwoods lies between. Secondly, place names are abundant and well-distributed throughout the state. Thousands of lakes and numerous other physical features contribute names, in addition to the cities and towns, which cover the state in a reasonably dense network. Finally, although the state is rather poorly covered by topographic maps, maps of almost equal detail are available. About 90 such maps were obtained from various county, state, and local organizations and officials.

The procedure involved careful examination of the available maps for place names which might in any way indicate types of vegetation. A map was then constructed which shows the distribution of 559 vegetation place names, comprising 54 categories. The maps of individual vegetation place names were drawn from this master map.

Of all the place names mapped, the term "pine" was clearly dominant, appearing a total of 88 times. This is perhaps appropriate since the official state tree of Minnesota is the red or Norway pine. Typical of these names were Pine County, Pine City, Pine Island, and scores of Pine Lakes. The striking concentration in the northeastern part of the state, corresponding to the coniferous forest region, is revealed in figure 2.

"Prairie," the second most numerous place name, appeared 49 times. Its distribution corresponds well to the southwestern part of the state, as it theoretically should (fig. 3). A dense concentration will be noted in the central part of the state, however, of which more will be said in the conclusions drawn from this study. Typical of the prairie names are the towns of Jacob's Prairie, Belle Prairie, and Blooming Prairie. Swede Prairie Township provides a still more descriptive place name.

Oak, probably the most characteristic tree of the deciduous forest, appeared 43 times. Other names appearing more than 20 times were cedar (43), maple (37), birch (36), tamarack (25), grass (24), and hay (21). The almost ubiquitous cedar and birch trees within the state of Minnesota were reflected in a wide scattering of

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<sup>3</sup> Map drawn largely on the basis of historical descriptions from J. W. McClung, *Minnesota as it is in 1870*. St. Paul: Press Printing Co., 1870.

place names. While the names indicate the presence of these trees, they could not be used to delimit major vegetation regions. Similarly, tamarack names appeared to reflect the poorly drained lands quite well, but the name, like the tree itself, is common in both the coniferous and deciduous regions. Neither the tree nor the place name appears south of the Minnesota River, however. Grass and hay were found most commonly in association with names of lakes and were, therefore, considered a better indication of shallow water than of a vegetation type.

"Maple," like "oak," showed a distinct correlation with the deciduous belt. These names are, therefore, shown together in fig. 4. Maple Plain, Mapleton, Oak Island, and Oakland, as well as numerous Oak and Maple Lakes, are typical of these.

Despite their concentration in the deciduous belt, oak, maple, and many other deciduous trees are not uncommon within the coniferous forest, and they frequently form groves or line the streams within the prairie. It is, therefore, not surprising to find that oak-maple names are not so sharply bounded as are the pine names.

The place name categories with less than 20 names were considered inadequate to reflect the major vegetation regions individually. Yet, some of these may help to determine and delimit major regions, if they are found concentrated within a single area as outlined by a more numerous indicator. Spruce and balsam, for example, are represented by only 16 names, yet all but three of these lie clearly within the coniferous area as outlined by pine names. Each of the six "evergreen" names also lie within this area. Other names indicate vegetation only indirectly. Such terms as Lone Tree and Rolling Green Townships, Plainview, Grandview, and others suggest grasslands almost as well as the term "prairie," itself. Still other names reflect the great variety of plants which exist within any given vegetation type.

Only tentative conclusions can be drawn on the basis of a single test. Of these the following seem particularly significant:

1. A fairly dense distribution of place names is essential for delimiting vegetation types. Where vegetation place names are widely spaced, as in northwestern Minnesota, boundary lines become somewhat difficult to establish.

2. No two persons would draw the boundary lines in exactly the same place. Yet by comparing figures 2, 3, and 4 with fig. 1 it can

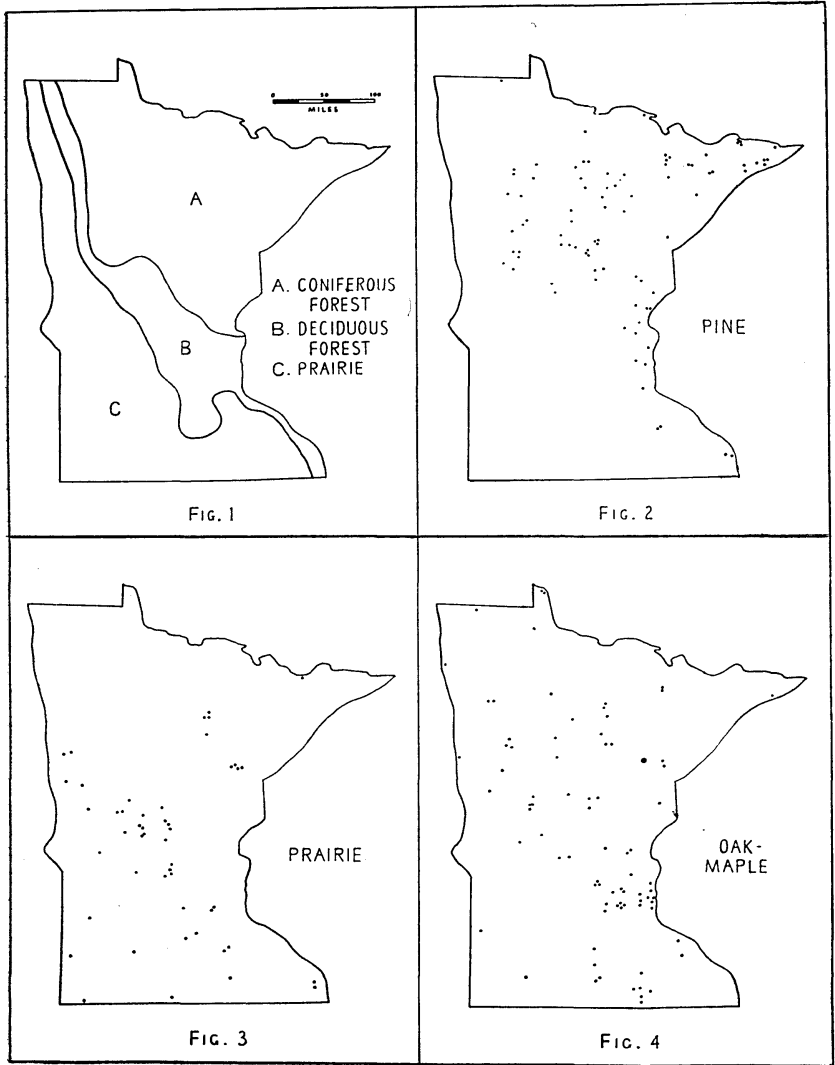


Fig. 1. Generalized map of major vegetation regions of Minnesota.

Fig. 2. Distribution of place names including the term "Pine."

Fig. 3. Distribution of place names including the term "Prairie."

Fig. 4. Distribution of place names including the terms "Oak" or "Maple."

be seen that the major vegetation types are quite well revealed by place names. The place-name method of mapping original vegetation thus appears to be basically sound.

3. Place names can lead to errors in mapping in such areas where they indicate unusual rather than typical phenomena. The greatest density of "prairie" names occurs in central Minnesota's hardwood belt. For example, Todd County, within this area, has 6 "prairie" names and only 2 of "pine" and 1 of "oak." According to an historical account this county was "mostly timber, prairies the exception."<sup>4</sup> The prairie place names in this county do, however, faithfully indicate the locations of the scattered small prairies which exist there.

4. Wherever possible, the place-name method should be used in conjunction with other methods, each being an aid rather than a single source of information. The resulting maps may then be expected to show a maximum possible degree of reliability.

Syracuse University

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<sup>4</sup> J. W. McClung, *op. cit.*, p. 265.



**IN MEMORIAM.** Phil Townsend Hanna, one of our charter members, died June 1, 1957 in Los Angeles. Born in Los Angeles in 1896 he became a newspaper writer after graduating from the University of Southern California. In 1927 he became editor of the journal of the Automobile Club of Southern California, first called *Touring Topics*, then *Westways*. He made this monthly magazine one of the best of its kind in the country. Among his numerous publications *The Dictionary of California Land Names* and the editions of the maps of the Automobile Club are of special interest to onomatologists. All who knew him personally or through his writings will regret his demise.