Meetings

Prairie Rebirth

The North American tall grass prairie never really had a chance. Before a botanist could say *Baptisia,* the white man had checked the wildfires that maintained the prairie, plowed it and planted corn, or allowed pastures or forest to lay claim to its fertile soils. This may all be changed now. In a symposium on prairie and prairie restoration at Knox College, Illinois, 14–15 September 1968, a group of scientists and prairie enthusiasts gathered to compare notes on how to recreate prairie communities before their otherwise inevitable extinction.

The difficulty of their mission begins with the awareness that no one knows what the "original" prairie looked like in areas chosen for restoration. Clues are sometimes discovered in rare prairie remnants along railroad rights-of-way, untended cemeteries, or undeveloped urban lots. The original prairie must have been infinitely variable, however, for its unbelievably rich assemblage of plant and animal populations varied with subtle differences in climate, soil, topography, fire frequency, or grazing intensity by wild animals.

Twelve of the papers given at the symposium were concerned with the nature of prairie environments and causative factors. Paul C. Lemon pointed out that tall grass prairie is essentially a forest border vegetation. The original prairies were distributed in areas that are today mostly forest climates, and it may have taken periodic wildfires to keep the deciduous forest at bay in many places. Nearly all symposium speakers had something to say about wild or controlled fires—fire to kill woody vegetation encroaching prairie areas (P. D. Kilburn), fire to consume excessive prairie mulch and invigorate herb growth (C. L. Kucera), fire for weed control in restoration areas (R. Schulenburg), or fire in bringing about changes in prairie rodent populations (P. Schramm). The soil environment also received excellent symposium coverage. Generalizations about prairie soil environments are difficult to make because, as P. B. Whitford pointed out, prairies once occurred on a wide variety of soil types. Soil profiles in some prairie areas contain grainy gray ped coatings in B horizons suggesting former dominance by forest vegetation. The process of conversion from forest to prairie soil was summarized by F. D. Hole, who also described soil mixing under ant mounds in relict prairie areas. A prairie community is considerably more than its conspicuous plant species. According to J. A. Wagner the "hidden prairie" deserves more attention in prairie restoration efforts. Little is known about food chains of cryptozoan residents of prairie mulches and sods, and some animals, such as certain species of pselaphid beetles, may be highly restricted to prairie habitats.

Considering its great biotic diversity, and knowing so little about the environmental controls on the biota of original prairies, how can one attempt to restore or recreate prairie? Ten papers were concerned with techniques of restoration. The first step is to establish the "big four" prairie grasses: big and little bluestem (*Andropogon gerardi* and *A. scoparius*), Indiangrass (*Sorghastrum nutans*), and switchgrass (*Panicum virgatum*). This requires patience, perseverence, and luck according to M. K. Bland who has contributed much to the University of Michigan's restoration work. There seems to be no tried and true method of seedbed preparation or seeding or transplant procedure, but it was generally agreed that control of Eurasian weeds was the major problem. Why not let the natural process of prairie succession take place? The return of tall grass prairie in abandoned fields in central Oklahoma is a very slow process. The initial weedy stage of this succession may last only 2 to 3 years. R. E. Wilson suggested that organic compounds produced by various annual weeds have a detrimental effect on the growth of other annual weeds. Thus the period of weed dominance is limited by the buildup of their own inhibitors in the soil. Eventually annual grasses not affected by these inhibitors come into the field, but it could be 50 to 100 years after abandonment before the perennial tall grasses again regain their composure—too long for us to wait. In fields or pastures where exotic perennial grasses such as bluegrass (*Poa pratensis*) or orchardgrass (*Dactylis glomerata*) form a tight sod the native prairie species may never come back without man's help by plowing, reseeding, or transplanting. Restoration work also entails the introduction, by seeding or transplant, of native forbs into the prairie "garden." Without the color and variety contributed by silphiums, puccoons, baptisias, blazingstars, asters, and hosts of others the tall grass field would bear little resemblance to prairie.

Why all this effort to bring back the prairie? Perhaps there need be no justification other than the feeling that a prairie community is something very beautiful. Both the Morton Arboretum near Chicago and Milwaukee's Boerner Botanical Gardens are reconstructing prairies with the assumption that all kinds of people enjoy its beauty. An evening slide lecture by J. Wilson from Wilson Seed Farms, Polk, Nebraska conveyed by compelling narrative and superb photography a sense of man's material and spiritual need for native grasslands. Mr. Wilson put it most succinctly—we're not just interested in its scientific aspects, indeed we place great value on prairie "because this complex, brawling, tension-ridden world alarms us, and we find comfort in the timeless, reassuring Presence of the Prairie." If the objectives and enthusiasms of those who attended this symposium can be realized, then some day our children will be able to repeat Aldo Leopold's bus ride through Illinois and find that timeless, reassuring presence all along the roadway.

It was a welcome announcement by Dr. P. Schramm, symposium chairman, that the presentations of this symposium would be made available as a publication. Address inquiries to him at Knox College, Galesburg, Illinois 61401.

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