Woodlands in the Great Plains

Commenting on a report in which P. V. Wells (*1*) points out that nonriparian woodlands occur on topographic breaks in the Great Plains and suggests fire and other factors to partly account for the grasslands on more level topography, G. Ehrenfried (*2*) cites an 1860 publication which describes fires caused by Indians as evidently accounting for an extension of the prairies in Canada.

In March 1805, in a letter to his mother, Meriwether Lewis (*3*) wrote concerning the country along the Missouri River between the Platte River and Ft. Manda, North Dakota:

> With respect to this open country, I have been agreeably disappointed. From previous information I had been led to believe that it was barren, sterile and sandy; but, on the contrary, I found it fertile in the extreme, the soil . . . consisting of a fine black loam . . . [with] a luxuriant growth of grass and other vegetable productions, particularly such as are not liable to be much injured, or wholly destroyed by the ravages of the fire. . . . there can exist no other objection to it, except that of the want of timber. . . . This want of timber is by no means attributable to a deficiency in the soil to produce it, but owes its origin to the ravages of the fires, which the natives kindle in these plains at all seasons of the year. The country on both sides of the river, except some of its bottom lands, . . . is one continued open plain, in which no timber is to be seen except a few . . . clumps of trees, which, from their moist situation, or the steep declivities of hills, are sheltered from the effects of fire.

Thus 160 years ago Lewis recognized nonriparian as well as riparian forests in the midst of the grasslands, attributed the treeless condition to man-caused fires, and recognized the fertility of the soil. It was evidently Major Long, after his 1820 expedition, who applied to the Great Plains the name "Great American Desert," which term was subsequently publicized by James Fenimore Cooper in his novel *The Prairie* (1827). From this came the long-held belief in the treelessness of the Great Plains.

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References

1. P. V. Wells, *Science* **148**, 246 (1965).
2. G. Ehrenfried, *ibid.*, p. 1173.
3. R. G. Thwaites, *Original Journals of the Lewis and Clark Expedition* (Dodd, Mead, New York, 1905), vol. 7.