

## XI SOME OBSERVATIONS ON THE SPREAD OF MESQUITE TO THE NORTH IN CIMARRON COUNTY OKLAHOMA

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For the past fifteen or sixteen years slow but continuous spread of Mesquite (*Prosopis glandulosa*) in the hill country adjacent to Kenton on the south and east, has been a matter of very great interest to the author. Back at the beginning of that period only a few of these shrubs, very stunted as to size, were to be found in the area mentioned and these were in locations particularly favorable to these aliens from the warmer climate of Texas and southeastern New Mexico, and were the southern slopes of the hills, or at the foot canyon sides facing the south. Then gradually a lone specimen would be found springing up in the floor of some canyon or out on the broad, unprotected areas of level land where the canyons opened into the Cimarron valley, from the south.

Tesesquite Canyon uniting with the Cimarron River four miles east of Kenton, appears to have been the locality best adapted to the growth and spread of the shrub and six years ago the mesquite had followed this water-course north and east almost to the Cimarron, but here its range appeared to end as abruptly as though hedged in by some actual physical barrier, and for three years more not a single specimen was recorded from the north side of the Cimarron. Then a few very small, scraggly individuals were found on Gallinas Creek twelve miles northeast of Kenton, and during the past summer a lone specimen apparently some three or four years of age was found still farther north on the same creek and within half a mile of the Colorado-Oklahoma line, and in September of this year some sixty of the shrubs were found in a sheltered pocket in the northern wall of Pat Canyon, a tributary to Gallinas Creek from the northwest, and within an eighth of a mile of the Colorado-Oklahoma line.

With the mesquite growing so near the Colorado line, in Pat Canyon it seems reasonable to suppose that seed from this or some other group of the shrubs equally near the line, and yet undiscovered, may have been carried across the comparatively short distance into Colorado and there have sprouted and taken root to form the first growing specimen in Colorado, and the search for this specimen in Colorado will be a matter to which I expect to devote considerable time and attention during the coming months.