

Trends in Vegetation in Teton County, Wyoming

Alan A. Beetle
University of Wyoming
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During 1964 new range research was begun in Teton County, Wyoming. The project is concerned largely with determination of "trends" in vegetation patterns. Its objectives are: (1) to study methods of determining trend or lack of it, and (2) to evaluate the prevalence, the direction, and the speed of trends found in Teton County vegetation.

Changes in vegetation in Teton County proved easy to find. As a basis for comparison plots studied during 1955-1960 (see Wyoming Agricultural Experiment Station Bulletins 376, and 400, for reports of this research) were restudied. The same survey techniques were used in the same localities, often on the same day of the year, and often by the same examiner. As in the previous study every effort was made to determine what natural patterns remained in the vegetation, and to use these relic areas as guides for description of condition classes other than natural. The field work in 1964 was analyzed under three categories (1) stability, (2) trend, and (3) disturbance.

In analytical synecology some of the factors contributing to stability (climax) are: (a) species tolerance, (b) soil stability, and (c) age of the dominants. Some of the factors contributing to trend are: (a) control of fire, (b) post-glacial changes in climate, (c) geological disturbances.

Disturbances are due to the recent activities of man, and include: (a) fencing, (b) trailing, (c) elk feeding programs, (d) dams, (e) introduction of cattle, horses, and other animals, (f) highways and excavations, (g) irrigation, (h) predator control, and others.

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Some Aspects of Plant and Animal Distribution as Affected by Geologic Formations

Kenneth L. Diem and Garth S. Kennington
University of Wyoming
Project Number 112

During June and early July northern pocket gophers were trapped on similar rock formations of different ages in Yellowstone Park and in Idaho. These extensive collections are being used to check earlier findings with respect to the variability and intensity of natural radiation and other aspects of the original study reported on in the years since 1961. Samples of parent rock strata were also collected from each of these areas and they are being analyzed for mineral composition.

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