PLANT SUCCESSION WITHIN THE JOHN D. ROCKEFELLER, JR. MEMORIAL PARKWAY

Alan A. Beetle
Range Management Section
University of Wyoming
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The John D. Rockefeller, Jr. Memorial Parkway lies south of the great Yellowstone thermal area and north of the Teton glacial moraines. Caught between these extremes and influenced by them to varying degrees at different times, the Parkway offers a unique challenge in the study of ecology. How did the present patterns develop? What changes are in the making?

Some plants flourish in nitches created by the lapsing of unusual activity whether thermal or clacial. Also some of these plants have persistence in the landscape even after they are surrounded by more slowly developing but very characteristic communities. Two easily recognized examples are (1) douglas fir on the steepest rocky knowls, bluffs, and cliff faces and (2) narrowleaf cottonwood along the stream channels. Neither of these has developed a truly characteristic community dominance as have lodgepole pine and aspen but they continue to thrive in spite of community competition, but only within the confines of their most specific habitat.

The dry benches between the ridges and the stream channels appear to have been colonized by various forms of sagebrush which represent edaphic climaxes of long persistence but which are susceptible to conquest by the lodgepole pine forest. These forests of lodgepole pine exhibit distinctions past partly on their (1) densities, (2) understory composition and (3) age classes.

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