Although the independent effect of variation in management was negligible on species composition there was a relatively large site and management shared fraction of explained variation. This indicates that our sites responded somewhat idiosyncratically to the management effects.

Furthermore, my observational study complements the large body of work that examined management effects as demonstrates observation studies have the ability to examine management effects i

my study demonstrates that examining management heterogeneity as rather than exogenous, experimentally manipulated variables observational studies can be used to place management effects into a broader ecological context.

For example, over the course of the study, seven of the sites changed from cattle grazed to bison grazed. Therefore, changes in these sites before and after the change in grazer that were independent of specific year effects were attributed to differences between bison and cattle. In contrast, if a site remained in the bison or cattle unit for the duration of the study then the grazer variable would attribute no explained variance to temporal changes at that particular site.

Therefore, independent management effects only explain variation through time at sites that is not attributable to year effects that can be associated with changes in management that occurred through time at those sites. Therefore, variation in management through time at a particular site was necessary to be explained as a management effect.

There are many obstacles to experimentally evaluating natural variability approaches. Chief among these obstacles are the problems of scale, replication, and the difficulty of a multivariate approach.

There appears to be at least three primary inner-related obstacles to testing the influence of imposing a variable management regime on a landscape. The pro

One reason for this is test’s of these hypotheses is a problem of scalerequire long-term datasets and most management plans, unlike controlled experiments, require flexibility and are likely to change from year-to-year as the management priorities change. Furthermore, it is often unfeasible, unethical, or contrary to management plans to Therefore it is difficult to carry out controlled experimental manipulations on large scales consistently through time.

Management

Since 1993 when bison were introduced on to the preserve the area of bison unit has been increased eight times, the stocking rate within the unit has been increased such that aboveground intake increased from 12.5 to 20%, and the average fire return interval decreased from five to three. These changes reflect the changing nature of management priorities and

In contrast to more controlled smaller scale studies such as the Konza prairie, the pastures did not have fixed fire return intervals or consistent grazers. I