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The Effects of Rainfall on Vernal Herbs

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Abstract

The effects of fire on vernal herbs are little known. David Kem attempted to assess the influences of spring and winter prescribed fires on vernal herbs by collecting abundance data on three sets of research plots located at the Western Kentucky University Green River Preserve in Hart County, KY, on April 9-10, 2010. On April 10, he conducted spring burns, and on February 22, 2011, he conducted winter burns. He then collected post-fire data on the abundance of the herbs on the 12-19 of March, 2011. He found little influence of fire on overall species richness and the density of common species. However, he found changes in abundance of rare species. In spring of 2015, we re-sampled these plots. We found substantial shifts in the abundance of common species, including *Stellaria pubera*, *Dentaria laciniata* and *Erythronium americanum* within sites. It is not clear whether these changes were due to the 2010 and 2011 prescribed fires. Instead we suspect higher amounts of spring rainfall led to these changes.