

Summer Science Institute Research

Permit 2005-6

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Project description and findings, Summer 2005

This past summer two Summer Science Institute (SSI) students worked on a research project under the guidance of Rebeccah Steffensen and Robert Bohanan in area 2 of the Biocore Prairie. The purpose of the students' project was to investigate the effectiveness of sawdust addition as a prairie restoration technique. The addition of carbon is known to reduce the amount of nitrogen available to plants in the soil and consequently favor the establishment of native prairie plants (that are better adapted to low nutrient conditions) over the establishment of nonnative, invasive plants. The students added another addition of sawdust to the soil in research plots where sawdust had been added the two years previous. The students measured species occurrence before and after the addition of carbon, collected soil cores to analyze nitrogen content, measured light levels, and measured soil moisture over the duration of the 7 week project. They then compared this data to that which was collected in past years. The students reported that there were fewer nonnative plants growing in the sawdust treatment plots than in the control plots, but that the treatment would have to be continued for more years to determine how effective the sawdust treatment would be long term.