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Deer Browse Monitoring of the Lupine Population at John Merle Coulter Prairie and the Trillium Population at Hildebrand Lake

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A facet of ecological restoration practices in northwest Indiana involves monitoring and supporting the growth of various plants native to the region, including wild lupine (*Lupinus perennis*) and large-flowering trillium (*Trillium grandiflorum*). White-tailed deer are a common threat to these species because they eat, or browse, the flowers from these plants. This project investigated the amount of wild lupine and large-flowering trillium browsed by white-tailed deer at Coulter Prairie and Hildebrand Lake, respectively, over a four-year period. Plant counts are taken from permanent transect lines of 30 and 50 meters in length and measured in one meter quadrats along both sides of the transect. Browsed flowering stems, non-browsed flowering stems and non-flowering stems are counted; the non-browsed flowering trillium is also measured for height to determine the strength of the population's growth over the four-year time period. Data from transects located inside and outside deer exclosures at Hildebrand Lake was compared to show how trillium would grow without a deer presence. Deer population management practices were examined on these sites as well as on neighboring properties. In areas where deer were hunted, the number of browsed plants decreased and the overall plant populations grew taller the following year. Deer harvesting should serve as a part of future restoration practices for preserving the health of the wild lupine and large-flowering trillium populations in the northwest Indiana region.

Information about the Authors:

Jana Cram and Heather Dulaney are second-year students in the School of Liberal Arts and Sciences at Ivy Tech Community College in Valparaiso. They participated in the GLISTEN program this summer as stewards for the Shirley Heinze Land Trust.

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