

ALDERVILLE FIRST NATION BLACK OAK SAVANNA AND TALLGRASS PRAIRIE: RESTORING A NATURAL AND CULTURAL HERITAGE.

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Abstract: The Alderville First Nation Black Oak Savanna and Tallgrass Prairie Restoration Program conserves the largest remnant prairie in central Ontario, located south of Rice Lake in the Oak Ridges Moraine. The program's intent is fourfold: 1) preserve, restore and expand this rare habitat; 2) educate the public and local landowners; 3) provide a quality research site; and 4) compile and implement local traditional ecological knowledge. Restoration of the 50 hectare site began in 1998. To date, over 15 hectares of old field have been sown with native prairie plant seed collected on site. Shifting areas of prairie and savanna have undergone annual prescribed burning. Amphibians, insects, plants, and birds have been surveyed. In 2003, blue lupines (*Lupinus perennis*) were introduced to provide habitat for the potential re-introduction of the Karner Blue butterfly (*Lycaeides melissa samuelis*) in Ontario. Establishment and reproductive success of individual blue lupine plants was measured and an assessment of the existing colonies on the site was conducted using plant community indices and environmental gradient analyses. Lupine establishment and reproduction was greatest in the most diverse and heterogeneous microsites. These microsites had greater tree cover (>50%), higher concentrations of base cations, and moderate soil nitrogen concentrations compared to less productive or failed lupine colonies. Here we discuss the results of this study in the context of attempts to re-introduce the Wild Blue Lupine and Karner Blue Butterflies at the Alderville site and elsewhere and the overall objectives of our restoration program.