DEVELOPING PREDICTIVE MODELS FOR ENDANGERED NATIVE PRAIRIE PLANT SPECIES: SMALL WHITE LADY'S SLIPPER *CYPRIPEDIUM CANDIDUM*, WESTERN PRAIRIE WHITE FRINGED ORCHID *PLATANTHERA PRAECLARA* AND WESTERN SILVERY ASTER *SYMPHIOTRICHIUM SERICEUM*.

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Abstract: Three endangered native prairie plant species, the Small White Lady's Slipper *Cypripedium candidum*, Western Prairie White Fringed Orchid *Platanthera praeclara* and Western Silvery Aster *Symphiotrichium sericeum* were studied on 109 sites in southern Manitoba, Canada. The objectives were to identify factors that could be used to predict those species distributions, and refine them into a model useful to land managers. The intent was to make field inventories more efficient in the future, leading to more effective management, conservation and restoration. Methods included a combination of field investigation and ARC-View GIS analysis. Significant strides in developing predictive models for two of the three species were made. Seven confirmed new locations for the Western Silvery Aster were found using the model. Potential new areas for Western Prairie White Fringed Orchids also were identified. No clear indications were discovered regarding modeling Small White Lady's Slipper occurrence. Further analysis of project data, and GIS mapping is planned to refine species distribution models.