

THE ECOLOGICAL INFLUENCE OF *PEDICULARIS CANADENSIS* IN SOUTHERN WISCONSIN DRY REMNANT PRAIRIES

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Abstract: Identifying keystone species and understanding their contribution to plant communities is vital to reconstructing diverse, ecologically accurate prairie restorations. Past research has shown that hemi-parasitic plants may exert a disproportional influence in maintaining community richness and diversity. *Pedicularis canadensis*, a native forb of Midwestern prairies and savannas, is hemi-parasitic and thought to suppress aggressive grasses and forbs, thereby releasing less competitive species and promoting diversity. An earlier study on a prairie restoration by Armstrong et al. (2005) supports this hypothesis. Given the many differences in site history between restorations and remnant systems the influence of *P. canadensis* may differ based on site context. This study investigates the role of *P. canadensis* in contributing to the structure, composition, and diversity of native Wisconsin *remnant* prairies. Field sampling was completed at two remnant prairies in the spring seasons of 2006 and 2007 using randomly located ¼ meter quadrats. Data suggest that *P. canadensis* is most commonly found around rocky, thin soil locations within remnant prairies and is negatively correlated with canopy height. *P. canadensis* appears to be positively correlated to areas of greater species richness and diversity. A shift in species composition was also detected. The influence of *P. canadensis* is likely facilitated by soil conditions on site and may depend upon site history.