

Effects of Forest Cover on Fruit Set in the Woodland Herb, *Maianthemum canadense* (Liliaceae)

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Animal pollination has been recognized as an essential ecosystem function that is potentially under various environmental stresses. We investigated the landscape effects of forest cover at multiple spatial scales on the sexual reproductive success of a common woodland herb in North America, *Maianthemum canadense*. This species is a self-incompatible species and pollinated by insects requiring natural landscapes. Nine populations were selected in deciduous forests within agricultural fields of southern Ontario, Canada. We investigated whether fruiting success decreases as forest cover surrounding the plant populations increases at the landscape scale. Forest cover was quantified by the proportion of forest within six different radii from 250 to 1500 m. Analyses showed relationships with the proportion of forest at 750- and 1000-m radii and fruiting success in populations of *M. canadense*. These findings suggest potential local extirpation of *M. canadense* and indicate that forest loss can negatively impact on even some common woodland herbs.

Key Words: Carolinian forest, forest fragmentation, habitat isolation, habitat loss, pollinator, Ontario.