

## Slugs, Seed Dispersers, and Stone Walls: Community Ecology of Northeast Herbaceous Flora

Presented December 2, 2020 by Nathan Kiel  
North Branch Nature Center 'Naturalist Journeys' Series

### References

- Baeten, L., M. Vanhellemont, P. De Frenne, A. De Schrijver, M. Hermy, and K. Verheyen. 2010. Plasticity in response to phosphorus and light availability in four forest herbs. *Oecologia* 163:1021-1032.
- Beattie, A. J. and D. C. Culver. 1981. The guild of myrmecochores in the herbaceous flora of West Virginia forests. *Ecology* 62:107-115.
- Bernhardt, P. 1976. The pollination ecology of *Hepatica acutiloba* DC. (Ranunculaceae). *Bulletin of the Torrey Botanical Club* 103:255-258.
- Bernhardt, P. 1975. The pollination ecology of four species of local vernal herbaceous angiosperms. SUNY College at Brockport, Brockport, New York, USA.
- Biella, P., A. Akter, J. Ollerton, A. Nielsen, and J. Klecka. 2020. An empirical attack tolerance test alters the structure and species richness of plant-pollinator networks. *Functional Ecology* 34:2246-2258.
- Brundrett, M. C. and B. Kendrick. 1988. The mycorrhizal status, root anatomy, and phenology of plants in a sugar maple forest. *Canadian Journal of Botany* 66:1153-1173.
- Dobson, A. and B. Blossey. 2015. Earthworm invasion, white-tailed deer and seedling establishment in deciduous forests of north-eastern North America. *Journal of Ecology* 103:153-164.
- Flinn, K. M. and M. Vellend. 2005. Recovery of forest plant communities in post-agricultural landscapes. *Frontiers in Ecology and the Environment* 3:243-250.
- Fraterrigo, J. M., S. M. Pearson and, M. G. Turner. 2009. The response of understory herbaceous plants to nitrogen fertilization in forests of different land-use history. *Forest Ecology and Management* 257:2182-2188.
- Gilliam, F. S. 2007. The ecological significance of the herbaceous layer in temperate forest ecosystems. *Bioscience* 57:845-858.
- Gilliam, F. S. 2014. *The herbaceous layer in forests of eastern North America*. Oxford University Press, New York, New York, USA.
- Golay, M. G., R. Manatt, C. Mabry, J. Thompson, and R. Kolka. 2013. Restoration of herbaceous woodland plants: Persistence, growth, and reproductive success of local and non-local propagules. *Ecological Restoration* 31:378-387.
- Griffiths, G. R. 2018. Plant-pollinator interactions in central New York forest understories and evaluation of forest herb restoration strategies in postagricultural forests. Thesis, SUNY College of Environmental Science and Forestry, Syracuse, New York, USA.
- Griffiths, G. R. and G. G. McGee. 2018. Lack of herbaceous layer community recovery in postagricultural forests across three physiographic regions of New York. *Torrey Botanical Society* 145:1-20.
- Heithaus, E. R. 1981. Seed predation by rodents on three ant-dispersed plants. *Ecology*, 136-145.

- Horsley, S. B., S. L. Stout, and D. S. DeCalesta. 2003. White-tailed deer impact on the vegetation dynamics of northern hardwood forests. *Ecological Applications* 13:98-118.
- Janzen, D. 1974. The deflowering of Central America. *Natural History* 83:49-53.
- Kiel, N. G., G. R. Griffiths, and G. G. McGee. 2020. Can disruption of an ant-plant mutualism explain a lack of recovery of forest herbs in post-agricultural forests of New York? *Northeastern Naturalist* 27:215-228.
- Kominami, Y., T. Sato, K. Takeshita, T. Manabe, A. Endo, and N. Noma. 2003. Classification of bird-dispersed plants by fruiting phenology, fruit size, and growth form in a primary lucidophyllous forest: an analysis, with implications for the conservation of fruit-bird interactions. *Ornithological Science* 2:3-23.
- Lawrence, B., M. C. Fisk, T. J. Fahey, and E. R. Suarez. 2003. Influence of nonnative earthworms on mycorrhizal colonization of sugar maple (*Acer saccharum*). *New Phytologist* 157:145-153.
- Lerat, S., R. Gauci, J. G. Catford, H. Vierheilig, Y. Piche, and L. Lapointe. 2002. <sup>14</sup>C transfer between the spring ephemeral *Erythronium americanum* and sugar maple saplings via arbuscular mycorrhizal fungi in natural stands. *Oecologia* 132:181-187.
- Macior, L. W. 1978. Pollination ecology of vernal angiosperms. *Oikos* 30:452-460.
- McGee, G. G. 2018. Biological Diversity in Eastern Old Growth. Pages 197-216 in A. M. Barton and W. S. Keeton, editors. *Ecology and Recovery of Eastern Old-Growth Forests*. Island Press, Washington, DC, USA.
- McGraw, J. B. and M. A. Furedi. 2005. Deer browsing and population viability of a forest understory plant. *Science* 307:920-922.
- Mottl, L. M., C. M. Mabry, and D. R. Farrar. 2006. Seven-year survival of perennial herbaceous transplants in temperate woodland restoration. *Restoration Ecology* 14:330-338.
- Muller, R. N. 1978. The phenology, growth and ecosystem dynamics of *Erythronium americanum* in the northern hardwood forest. *Ecological Monographs* 48:1-20.
- Ness, J. H. and K. Bressmer. 2005. Abiotic influences on the behavior of rodents, ants, and plants affect an ant-seed mutualism. *Ecoscience* 12:76-81.
- Ohara, M. and S. Higashi. 1987. Interference by ground beetles with the dispersal by ants of seeds of *Trillium* species (Liliaceae). *Journal of Ecology* 75:1091-1098.
- Ohkawara, K., S. Higashi, and M. Ohara. 1996. Effects of ants, ground beetles and the seed-fall patterns on myrmecochory of *Erythronium japonicum* Decne. (Liliaceae). *Oecologia* 106:500-506.
- Pakeman, R. J. 2001. Plant migration rates and seed dispersal mechanisms. *Journal of Biogeography* 28:795-800.
- Peterson, D. L. and G. L. Rolfe. 1982. Nutrient dynamics of herbaceous vegetation in upland and floodplain forest communities. *The American Midland Naturalist* 107:325-339.
- Philhower-Gillen, J. R. 2014. The role of animals in maintaining forest herb diversity in southeast Ohio. Thesis, Ohio University, Athens, Ohio, USA.
- Proctor, E., E. Nol, D. Burke, and W. J. Crins. 2012. Responses of insect pollinators and understory plants to silviculture in northern hardwood forests. *Biodiversity Conservation* 21:1703-1740.

- Ruhren, S. and S. N. Handel. 2003. Herbivory constrains survival, reproduction and mutualisms when restoring nine temperate forest herbs. *Torrey Botanical Society* 130:34-42.
- Stuhler, J. D. and J. L. Orrock. 2016. Past agricultural land use and present-day fire regimes can interact to determine the nature of seed predation. *Oecologia* 181:463-473.
- Tallmon, D. A., E. S. Jules, N. J. Radke, and L. S. Mills. 2003. Of mice and men and *Trillium*: Cascading effects of forest fragmentation. *Ecological Applications* 13:1193-1203.
- Tucker, E. M. and S. M. Rehan. 2016. Wild bee pollination networks in northern New England. *Journal of Insect Conservation* 20:325-337.
- Vellend, M., J. A. Myers, S. Gardescu, and P. L. Marks. 2003. Dispersal of *Trillium* seeds by deer: Implications for long-distance migration of forest herbs. *Ecology* 84:1067-1072.