Annual Patterns of Production in a Dragonfly Community in Western Virginia\(^1\)

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ABSTRACT

The number of dragonflies emerging from five mountain ponds over a four-year period was highly variable and independent for six species. Levels of adult activity were accurate indicators of relative reproductive input to the individual ponds. There was a general lack of concordance between reproductive input and subsequent adult emergence at a pond for three of four species studied, demonstrating the existence of differential egg or larval survival among ponds and years. Emergence and subsequent adult activity were not correlated for two of four species, indicating the existence of among-pond variability in factors affecting adult distributions. *Plathemis lydia* exhibited spatially and temporally stable populations and significant correlations between reproductive input and emergence, and between emergence and subsequent adult activity.

*Keywords:* ecology, habitat selection, life history, Odonata, population dynamics, reproductive output, spatial heterogeneity.

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\(^1\)Editor’s note: This paper is adapted from Chapter 2 in Halverson (1983); with my approval, no effort was made to update the literature references.

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