Flood Cycles
Photograph by Marian Smith

Human alteration of natural flood cycles is an important perturbation to floodplain plants. We report a demographic analysis of *Boltonia decurrens*, an endangered plant in the floodplains of the Illinois River. Navation dams and levees have drastically altered the timing and severity of flooding over the past century. These changes reduce the population growth rate (deterministic and stochastic) of *Boltonia* and change the life history pathways responsible for its population growth.

This photo shows U.S. 67 west of Alton, Illinois, in July 1993 during a flood that affected a third of the United States and caused $18 billion in damages. Historical data shows that the stochastic growth rate of *Boltonia* has declined in the last 100 years because the regulation of the river has increased the frequency of these late-receding floods. The photograph, by Nancy Parker, is associated with the article by M. Smith, H. Caswell, and P. Mettler-Cherry, "Stochastic flood and precipitation regimes and the population dynamics of a threatened floodplain plant," to be published in *Ecological Applications* 15(3), June 2005.

Look for the article by Marian Smith, Hal Caswell, and Paige Mettler-Cherry, "Stochastic flood and precipitation regimes and the population dynamics of a threatened floodplain plant," in the June 2005 issue of *Ecological Applications* 15(3).