

**Anthony R. Ives**  
**Professor, Department of Zoology**

**Academic and Professional History:**

- Awarded a Ph.D. in Biology from Princeton University in 1988
- Did a Life Sciences Research Foundation postdoc in the Department of Zoology, University of Washington
- Joined the University of Wisconsin-Madison in 1990

**Research Focus:** My two major research projects address both basic and applied ecological problems. The first of these projects addresses how the population dynamics of species in a community are affected by environmental changes. My second project addresses predator-prey interactions in agriculture and biological control. In all of my research, I use a combination of mathematical theory and experimental fieldwork.

**Graduate Training Focus:** My graduate students have worked on an eclectic mix of topics. I have encouraged diversity within my lab, because theoretical approaches to ecological and environmental problems are often stimulated by the tension between disparate research topics. Of four finished students (3 PhD, 1 MA) and five current PhD students, topics have ranged from malaria in lizards, microbial carbon utilization in freshwater lakes, and statistical methods for fitting complex, stage-structured models of population dynamics.

**Current Research Support:**

- NSF, Principal Investigator: Natural enemy diversity and biological control, 2001-2004, \$323,402.
- NSF, Co-Principal Investigator: Biodiversity: divergent dynamics: complex interactions of riparian land, people, and lakes, 2000-2005, \$2,998,607.
- NSF, Co-Principal Investigator: Immigrant amplification and population dynamics of fungi on leaf islands, 2001-2001, \$258,000.
- USDA-IFAFS, Co-Principal Investigator: Ecological risk management of Agricultural Biotechnology, 2001-2004, \$890,000.

**Select Publications:**

- Losey, J. E., A. R. Ives, J. Harmon, C. Brown, and F. Ballantyne. 1997. A polymorphism maintained by opposite patterns of parasitism and predation. *Nature* 388: 269-272.
- Sun, C., A. R. Ives, H. J. Kraeuter, and T. C. Moermond. 1997. The effectiveness of three turacos as seed dispersers in a tropical montane forest. *Oecologia* 112: 94-103.
- Ives, A. R., M. G. Turner, and S. M. Pearson. 1998. Local explanations of landscape patterns: can analytical approaches approximate simulation models of spatial processes. *Ecosystems* 1: 35-51.
- Ives, A. R., S. R. Carpenter, and B. Dennis. 1999. Community interaction webs and the response of a zooplankton community to experimental manipulations of planktivory. *Ecology* 80: 1405-1421.
- Fofopoulos, J., and A. R. Ives. 1999. Reptile extinctions on landbridge islands: life history attributes and vulnerability to extinction. *American Naturalist* 153: 1-25.
- Ives, A. R., K. Gross, and J. L. Klug. 1999. Stability and variability in competitive communities. *Science* 286: 542-544.
- Ives, A. R., and J. B. Hughes. 2002. General relationships between species diversity and stability in competitive systems. *American Naturalist* 159: 388-395.