

## **Biographical Sketch - J. David Allan**

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### **Education:**

Post-doctoral Fellow, 1971-72. Department of Biology, University of Chicago  
Ph.D., 1971. Department of Zoology, University of Michigan  
B.Sc., 1966. Department of Zoology, University of British Columbia

### **Positions held:**

**Professor**, 1990 to present, School of Natural Resources & Environment, University of Michigan, Ann Arbor MI. **Professor**, 1984-90; **Director of Graduate Studies**, 1985-88; **Associate Professor**, 1977-84; **Assistant Professor**, 1972-77; Department of Zoology, University of Maryland, College Park MD. **Postdoctoral Fellow**, University of Chicago, 1971.

### **Research Interests:**

Landscape influences on river ecosystems, including human alteration of land use at multiple spatial scales  
River flows, their variability, and the maintenance of environmental flows  
Stream ecology, with emphasis on community interactions and invertebrate drift behavior  
Conservation biology, with emphasis on freshwater ecosystems  
Tropical river systems, with emphasis on anthropogenic influences upon land-water interactions

### **Synergies:**

Senior Smith Fellow, The Nature Conservancy  
NCEAS: Co-leader, National River Restoration Science Synthesis Project, NSF-NCEAS (with Margaret Palmer). <http://www.amrivers.org/feature/riverrestoration.htm>  
EPA: Consultant, Tiered Aquatic Life Use Workgroup  
NAS/NRC: Member, Committee on Assessment of Water Resources Research for the Nation.  
NGOs: past Board member and Chair of Science and Technology Advisory Committee, American Rivers; Board of Trustees, Michigan Chapter, The Nature Conservancy

### **Professional Experience Relevant to the Proposed Project:**

Professional Society Memberships: American Association for the Advancement of Science, American Fisheries Society, North American Benthological Society, Society for Conservation Biology, Ecological Society of America, Societas Internationalis Limnologie, American Society of Limnology & Oceanography  
Ad hoc Reviewer for: National Science Foundation, National Geographic Society, Ecology, Science, Hydrobiologia, numerous other journals  
Director, Program in Conservation Biology & Ecosystem Management, University of Michigan  
Chair, Science Advisory Committee and Member of Board, American Rivers, 1993-99  
International experience in England, Israel and Sweden (sabbatical visits) and Venezuela (field work in 1989, 1994, 1995, 1997, 1998).

**Publications since 2002:**

- Allan, J.D.** and M.M. Castillo. 2007. Stream Ecology, Second Edition. Springer (in press).
- Alexander, G.G. and **J.D. Allan**. 2007. Ecological success in stream restoration: Case studies from the Midwestern United States. *Environmental Management* (in press)
- Bernhardt et al 2007 *Restoration Ecology* (in press)
- Palmer, M.A., **J.D. Allan**, Bernhardt, E. S., J. L. Meyer. 2007 *Restoration Ecology* (in press)
- Cushing C.E. and **J.D. Allan**. 2007. *Encyclopedia of Life*
- Wang, L et al.
- Alexander, G.G. and **J.D. Allan**. 2006. Stream restoration in the upper Midwest, USA. *Restoration Ecology* 14:595-604.
- Allan, J.D.**, R. Abell, Z. Hogan, C. Revenga, B. W. Taylor, R. L. Welcomme, and K. Winemiller. 2006. Overfishing of inland waters. *BioScience* 55:1041-1051.
- Diana, M., **J. D. Allan** and Dana Infante. 2006. The influence of physical habitat and land use on stream fish assemblages insoutheastern Michigan. *American Fisheries Society Symposium* 48:359-374.
- Palmer, M.A. and **J.D. Allan**. 2006. Restoring rivers. *Issues in Science & Technology*, National Academy of Sciences, Winter, pp 40-48.
- Jenkinson, R, K. Barnas, J. Braatne, E. Bernhardt, M.A. Palmer, **J.D. Allan**, and the National River Restoration Science Synthesis. 2006. Stream restoration databases and case studies: a guide to information resources and their utility in advancing the science and practice of restoration. *Restoration Ecology* 14:177-186
- Wilhelm, J.G.O., **J.D. Allan**, K. J. Wessel, R.W. Merritt and K.W. Cummins. 2005. Habitat assessment of non-wadeable rivers in Michigan. *Environmental Management* 36:592-609
- Allan, J.D.**, A. S. Flecker, S. Segnini, D. C. Taphorn, E. Sokal and G. W. Kling. 2006. The limnology of Andean piedmont rivers of Venezuela. *Journal of the North American Benthological Society* 25:66-81
- US EPA 2006. Use of biological information to better define designated aquatic life uses in state and tribal water quality standards: tiered aquatic life uses. Draft document, Office of Water.
- Bernhardt, E. S., M. A. Palmer, **J. D. Allan**, G. Alexander, K. Barnas, S. Brooks, J. Carr, S. Clayton, C. Dahm, J. Follstad-Shah, D. Galat, S. Gloss, P. Goodwin, D. Hart, B. Hassett, R. Jenkinson, S. Katz, G. M. Kondolf, P. S. Lake, R. Lave, J. L. Meyer, T. K. O'Donnell, L. Pagano, B. Powell, and E. Sudduth. 2005. Restoration of U.S. Rivers - a National Synthesis. *Science* 308:636-637,
- Palmer, M. A., E. S. Bernhardt, **J. D. Allan**, G. Alexander, S. Brooks, J. Carr, S. Clayton, C. N. Dahm, J. F. Shah, D. L. Galat, S. Gloss, P. Goodwin, D. D. Hart, B. Hassett, R. Jenkinson, G. M. Kondolf, R. Lave, J. L. Meyer, T. K. O'Donnell, L. Pagano, and E. Sudduth. 2005. Standards for ecologically successful river restoration. *Journal of Applied Ecology* 42:208-217
- Allan, J. D.** and A.C. Benke. 2005. Overview and prospects. Pages 1087-1101 in A.C. Benke and C.E. Cushing (eds.) Rivers of North America. Elsevier, Inc., Amsterdam.
- Allan, J. D.**, M.A. Palmer and N.L. Poff. 2005. Climate change and freshwater ecosystems. Pp. 272-290. in T.E. Lovejoy and L. Hannah (eds.), Climate Change and Biodiversity. Yale University Press, New Haven CT.

- Allan, J.D.** 2004. Influence of land use and landscape setting on the ecological status of rivers. *Limnetica* 23:187-198.
- National Academies of Science. 2004. Water Resources Research: Setting Priorities, Investing for the Future, and Coordinating the Effort. National Academies Press, Washington DC.
- Allan, J.D.** 2004. Landscape and riverscapes: The influence of land use on river ecosystems. *Annual Reviews of Ecology, Evolution and Systematics* 35:257-284.
- Nassauer, J.I., **J.D. Allan**, T. Johengen, S.E. Kosek and D. Infante. 2004. Exurban residential subdivision development: Effects of Water quality and public perception. *Urban Ecosystems* 7:267-281.
- Castillo, M. M., **J. D. Allan**, G. W. Kling, and R.L. Sinsabaugh. 2004. Seasonal and interannual variation of bacterial production in lowland rivers of the Orinoco Basin. *Freshwater Biology* 49:1400-1414.
- McRae, S.E., **J. D. Allan** and J. Burch 2004. Reach and landscape-scale determinants of freshwater mussel (*Bivalvia: Unionidae*) distributions in an agricultural catchment, Michigan, USA. *Freshwater Biology* 49:127-142.
- Cifaldi, R., **J.D. Allan**, J-D Duh and D.B. Brown. 2003. Spatial patterns in land cover in exurbanizing watersheds of southeastern Michigan. *Landscape and Urban Planning* 66:107-123
- Poff, N.L., **J.D. Allan**, M.A. Palmer, D.D. Hart, B. Richter, A.H. Arthington, K.H. Rogers, J.L. Meyer and J.A. Stanford. 2003. River flows and water wars: Emerging science for environmental decision-making. *Frontiers in Ecology and the Environment* 1:298-306.
- Allan, J.D.**, Mark S. Wipfli, John P. Caouette, Aaron Prussian, and Joanna Rodgers. 2003. Influence of streamside vegetation on terrestrial invertebrate subsidies to salmonid food webs. *Canadian Journal of Fisheries and Aquatic Sciences* 60:309-320.
- Castillo, M. M., G. W. Kling, and **J.D. Allan**. 2002. Bottom-up controls on bacterial production in tropical lowland rivers. *Limnology & Oceanography* 48:1466-1475.
- Abell, R. and **J.D. Allan**. 2002. Riparian shade and stream temperatures in an agricultural catchment, Michigan, USA. *Verhandlungen der Internationalen Vereinigung für Theoretische und Angewandte Limnologie* 28:1-6.
- Allan, J.D.**, A. J. Brenner, J. Erazo, L. Fernandez, A. S. Flecker, D. L. Karwan, Samuel Segnini and D. C. Taphorn. 2002. Land use in watersheds of the Venezuelan Andes: A comparative analysis. *Conservation Biology* 16(2):527-538.

**Relevant additional publications:**

- Cushing, C. E. and **J. D. Allan**. 2001. *Streams: Their Ecology and Life*. Academic Press, San Diego (400+ pp).
- Castillo, M. M., **J. D. Allan** and S. Brunzell. 2000. Nutrient concentrations and discharges in a Midwestern agricultural catchment. *Journal of Environmental Quality* 29:1142-1151.
- Allan, J.D.**, D. L. Erickson and J. Fay. 1997. The influence of catchment land use on stream integrity across multiple spatial scales. *Freshwater Biology* 37:149-162.