

Curriculum Vitae - J. David Allan

School of Natural Resources & Environment
University of Michigan
Ann Arbor MI 48109-1041

Phone (313) 764-6553
Fax: (313) 936-2195
e-mail: dallan@umich.edu
web: www.snr.e.umich.edu/~dallan

Education:

Positions held:

Professor, 1990 to present, SNRE, University of Michigan, Ann Arbor MI.
Acting Dean. 2008-2009. 2011. School of Natural Resources and Environment (SNRE), University of Michigan, Ann Arbor MI.
Associate Dean. 2007-2008, 2009-2010. SNRE, University of Michigan, Ann Arbor MI.
Professor, 1984-90; **Associate Professor**, 1977-84. **Assistant Professor**, 1972-77; **Director of Graduate Studies**, 1985-88. Department of Zoology, University of Maryland, College Park MD.
Postdoctoral Fellow, University of Chicago, 1971.

Research Interests:

River flows, their variability, and the maintenance of environmental flows
Landscape influences on river ecosystems, including human alteration of land use
Influence of multiple stressors on freshwater ecosystems
Freshwater conservation and restoration

Current Grants:

Great Lakes Threat-Mapping Project. UM Water Center. 2012-2013, \$150,000.

Publications:

Books:

Allan, J. D. and M.M. Castillo. 2007. *Stream Ecology: Structure and Function of Running Waters*. Springer, The Netherlands. 400+ p.

Cushing, C. E. and J. D. Allan. 2001. *Streams: Their Ecology and Life*. Academic Press, San Diego (400+ pp).

Allan, J. D. 1995. *Stream Ecology: Structure and Function of Running Waters*. Kluwer Academic Publishers, The Netherlands. 400+ p.

Peer-reviewed papers:

- Cornwell, E.R. **J.D. Allan** and others. 2014. Biological and Chemical Contaminants as a driver of change in the Great Lakes-St. Lawrence River basin. *Journal of Great Lakes Research* (In press).
- Smith, S.D.P., P. McIntyre, **J.D. Allan** and others. 2014. Relative impacts in a multi-stressor world: assessing the importance of 50 stressors on the Laurentian Great Lakes. *Ecological Applications* (in revision).
- Chará-Serna, Ana M. Julián Chará, Lina P. Giraldo, María del Carmen Zúñiga and **J. D. Allan**. 2014. Understanding the impacts of agriculture on Andean stream ecosystems of Colombia. *Freshwater Science* (in review).
- Allan, J.D.**, S.P.D. Smith and others. 2014. Spatial heterogeneity and coincidence of ecosystem services in the Laurentian Great Lakes. *PNAS* (in review).
- Bosch, N.S., M.A. Evans, D. Scavia and **J.D. Allan**. Interacting effects of climate change and agricultural BMPs on nutrient runoff entering Lake Erie. *Journal of Great Lakes Research* <http://dx.doi.org/10.1016/j.jglr2014.04.011>.
- Scavia, D., **J.D. Allan** and 27 others. 2014. Assessing and addressing the re-eutrophication of Lake Erie: Central basin hypoxia. *Journal of Great Lakes Research*. <http://dx.doi.org/10.1016/j.jglr.2014.02.004>
- Childress, E., **J.D. Allan** and P.B. McIntyre. 2013. Nutrient subsidies from iteroparous fish migrations enhance stream productivity. *Ecosystems* DOI: 10.1007/s10021-013-9739-z.
- Bosch, N.S., **J. D. Allan**, J. P. Selegean and D. Scavia. 2013. Scenario-testing of agricultural best management practices in Lake Erie watersheds. *Journal of Great Lakes Research* 39:429-436.
- Allan, J.D.**, P.B. McIntyre, S.D.P. Smith, B.S. Halpern, G.L. Boyer, A. Buchsbaum, G.A. Burton Jr., L.M. Campbell, W.L. Chadderton, J.J.H. Ciborowski, P.J. Doran, T. Eder, D.M. Infante, L.B. Johnson, C.A. Joseph, A.L. Marino, A. Prusevich, J. Read, J.B. Rose, E.S. Rutherford, S.P. Sowa, A.D. Steinman. 2013. Joint analysis of stressors and ecosystem services to enhance restoration effectiveness. *Proceedings of the National Academy of Sciences* 110 (1): 372-377.
- Januchowski-Hartley SR, PB McIntyre, M Diebel, PJ Doran, DM Infante, C Joseph, and **JD Allan** 2013. Restoring aquatic ecosystem connectivity requires expanding inventories of both dams and road crossings *Frontiers in Ecology and the Environment* Vol 11(4):211-217.
- Richards, R. Peter, Ibrahim Alameddine, **J. David Allan**, David B. Baker, Nathan S. Bosch, Remegio Confesor, Joseph V. DePinto, David M. Dolan, Jeffrey M. Reutter, and Donald Scavia. 2012. The SPARROW Model and Lake Erie: A Commentary on the Great Lakes SPARROW Model. *Journal of the American Water Resources Association* DOI: 10.1111/jawr.12006

- Han, H. and **J. David Allan**. and Bosch, N.S. 2012. Historical patterns of phosphorus loading to Lake Erie watersheds. *Journal of Great Lakes Research* 38:289–29.
- Han, H. and **J.D. Allan**. 2011. Uneven Rise in N Inputs to the Lake Michigan Basin over the 20th Century Corresponds to Agricultural and Societal Transition. *Biogeochemistry* DOI 10.1007/s10533-011-9618-7.
- Han, Haejin, N.S. Bosch **and J D Allan**. 2011. Spatial and temporal variation in phosphorus budgets for 24 watersheds in the Lake Erie and Lake Michigan basins. *Biogeochemistry* 102(1):45-58
- Bosch N.S., **J. David Allan**, David M. Dolan, Haejin Han, and R. Peter Richards. 2011. Application of the Soil and Water Assessment Tool for six watersheds of Lake Erie: Model parameterization and calibration. *Journal of Great Lakes Research* 37:263–271.
- Allan, J. David**, L. L. Yuan, P. Black, T. Stockton, Peter Davies, Regina Magierowski and Steve Read. 2011. Investigating the relationships between environmental stressors and stream condition using Bayesian Belief Networks. *Freshwater Biology* special issue on watershed stressors. DOI: 10.1111/j.1365-2427.2011.02683.x
- Burtner, A, D. Kashian, P.B. McIntyre and **J. David Allan**. 2011. The influence of potadromous fish and land use on stream ecosystem function in Great Lakes tributaries. *Journal of Great Lakes Research* 37:521–527
- Cunico, Almir M., **J. David Allan** and Angelo A. Agostinho. 2011. Functional convergence of fish assemblages in urban streams of Brazil and the United States. *Ecological Indicators* [doi:10.1016/j.ecolind.2011.02.009]
- Crane, D.P., Thomas H. Johengen and **J. David Allan**. 2011. Assessment of quantitative food web metrics for investigating the influence of land use on warm water fish diets. *Hydrobiologia* 664:1–15 [DOI 10.1007/s10750-010-0578-z]
- Esselman P.C. and **J. David Allan**. 2010. Relative influences of catchment- and reach-scale abiotic factors on freshwater fish communities in rivers of northeastern Mesoamerica. *Ecology of Freshwater Fishes* 19: 439–454
- Allan, J. David**, Peter Esselman, Robin Abell, Peter McIntyre, Nicolas Tubbs, Harry Biggs, Leandro Castello, Aaron Jenkins, Richard Kingsford. 2010. Protected areas for freshwaters. PP 15-178 in Russell A. Mittermeier, Tracy A. Farrell, Ian J. Harrison, Amy J. Upgren, Thomas M. Brooks (editors) ‘Freshwater: The Essence of Life’. CEMEX/ILCP, Virginia, USA.
- Infante, D. M., and **J. David Allan**. 2010. Response of stream fish assemblages to local-scale habitat as influenced by landscape: A mechanistic investigation of stream fish assemblages. Pp 371-400 In: Community ecology of stream fishes. K. Gido and D. Jackson, editors. American Fisheries Society Symposium 73, Bethesda, Maryland.
- Esselman, P.C. and **J. David Allan**. 2010. Application of species distribution models and conservation planning software to the design of a reserve network for the riverine fishes of northeastern Mesoamerica. *Freshwater Biology* 56(1):71-88.

- Herbert, M., McIntyre, P.M., Doran, P., **J. David Allan.**, and Abell, R. 2010. How well do terrestrial reserve networks protect aquatic ecosystems? *Conservation Biology* 24(4):1002-1011.
- Peckarsky, B. L., **J. David Allan**, A. R. McIntosh and B. W. Taylor. 2010. Understanding the role of predation in open systems: the value of place-based research. In: Ian A. Billick and Mary V. Price, Editors. *The Ecology of Place: contributions of place-based research to ecological and evolutionary understanding*. University of Chicago Press .
- Palumbi, S.P., Sandifer, P.A., **J. David Allan.**, Beck, M.W., Fautin, D.G., Fogarty, M.J., Halpern, B.S., Incze, L.S., Leong, J.-A., Norse, E., Stachowicz, J.J., Wall, D.H. 2009. Managing for ocean biodiversity to sustain marine ecosystem services. *Frontiers in Ecology and the Environment* 4:204-211.
- Bosch, Nathan S., T.H. Johengen, **J. David Allan** and G.W. Kling, 2009. Nutrient fluxes across reaches and impoundments in two southeastern Michigan watersheds. *Lake and Reservoir Management* 25:389-400, 2009.
- Han, H., **J. David Allan** and D. Scavia. 2009. Influence of Climate and Human Activities on the Relationship between Watershed Nitrogen Input and River Export. *Environ. Sci. Technol.* DOI: 10.1021/es8011985x.
- Farrell, T., I. Harrison, **J. David Allan**, D. Braun, L. Emerton, J. Higgins, P. McIntyre, C. Revenga, M.L.J. Stiassny and M. Totten. 2009. 'Life Depends on it: Freshwater'. Chapter 11. pp. 167-179. In: Jeffrey A. McNelly, Russell A. Mittermeier, Thomas M. Brooks, Frederick Boltz, and Neville Ash (editors) 'The Wealth of Nature: Ecosystem Services, Biodiversity, and Human Well-Being'. CEMEX/ILCP, Virginia, USA.
- Cushing, C.E., and **J.D. Allan**. 2009. Biological interactions in river ecosystems. In G.E. Likens (ed.): Encyclopedia of inland waters, Elsevier.
- Barbour, M.T., Poff, N.L., Norris, R.H., **Allan, J.D.** 2008. Perspective: Communicating our science to influence public policy. *Journal of the North American Benthological Society* 27(3):562-569.
- Wessell, K.J., Merritt, R.W., Wilhelm, J.G.O., **Allan, J.D.**, Cummins, K.W. and Uzarski, D.G. 2008. Biological evaluation of Michigan's non-wadeable rivers using macroinvertebrates. *Aquatic Ecosystem Health & Management* 11(3):335-351.
- Infante, D.M., **Allan J.D.**, Linke, S., and Norris, R.H. 2008. Relationship of fish and macroinvertebrate assemblages to environmental factors: implications for community concordance. *Hydrobiologia* 623 (1), 87-103.
- Han, H. and **Allan, J.D.** 2008. Estimation of nitrogen inputs to catchments: comparison of methods and consequences for riverine export prediction. *Biogeochemistry* DOI 10 1007/s 10533-008-9279-3.
- Bosch, N.S. and **J.D. Allan**. 2008. The influence of impoundments on nutrient budgets in two catchments of Southeastern Michigan. *Biogeochemistry* 87:325–338.

- Wang, L., T. Brenden, P.W. Seelbach, A. Cooper, **J.D. Allan**, R. Clark, Jr., and M. Wiley. 2008. Landscape based identification of human disturbance gradients and reference conditions for streams in Michigan. *Environmental Monitoring and Assessment* 141:1-17.
- Bernhardt, E.S., E.B. Sudduth, M.A. Palmer, **J.D. Allan**, J.L. Meyer, G. Alexander, J. Follastad-Shah, B. Hassett, R. Jenkinson, R. Lave, J. Rumps, and L. Pagano. 2007. Restoring rivers one reach at a time: results from a survey of U.S. river restoration practitioners. *Restoration Ecology* 15(3):482–493.
- Palmer, M., **J.D. Allan**, J. Meyer, and E.S. Bernhardt. 2007. River restoration in the twenty-first century: data and experiential knowledge to inform future efforts. *Restoration Ecology* 15(3):472–481.
- Diana, M. J., **J. D. Allan**, and D. M. Infante. 2006. The influence of habitat and land use on fish assemblages of streams in southeastern Michigan. In: R. M. Hughes, L. Wang, and P. W. Seelbach (Editors), *Influences of landscape on stream habitats and biological assemblages*. American Fisheries Society, Bethesda, Maryland.
- Alexander, G. G. and **J. D. Allan**. 2006. Stream restoration in the upper Midwest, USA. *Restoration Ecology*, 14: 595–604.
- Jenkinson, R., K. Barnas, J. Braatne, E. S. Bernhardt, M. A. Palmer, **J. D. Allan**, NRRSS. 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.
- Allan, J. D.**, A. S. Flecker, S. Segnini, D. C. Taphorn, E. Sokol and G. W. Kling. 2006. The limnology of Andean piedmont rivers of Venezuela. *Journal of the North American Benthological Society* 25:66-81.
- 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.
- Palmer, M.A. and **J. D. Allan**. 2006. Restoring rivers. *Issues in Science & Technology*, National Academy of Sciences, Winter, pp. 40-48.
- 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.** 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.
- 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
- 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.
- Allan, J. D.** 2004. Influence of land use and landscape setting on the ecological status of rivers. *Limnetica* 23:187-198.
- 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.
- Kopplin, 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.
- Karr, J. R., **J. D. Allan** and A. C. Benke. 2000. River Conservation in North America: Science, Policy, and Practice. Pp. 3-39 in P.J. Boon, B. Davies, and G. Petts (eds.), *Global Perspectives on River Conservation*. John Wiley & Sons, London
- 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.** and V. Hung. 2000. Climate change and river flows. Pp 51-54 In: Preparing for a Changing Climate: The Potential Consequences of Climate Variability and Change. P.J. Sousounis and J.M. Bisanz (eds.), University of Michigan, Atmospheric, Oceanic, and Space Sciences Dept., Ann Arbor, Michigan.
- Allan, J. D.** 1999. El regimen natural de los ríos: Un paradigma para su conservación y restauración. Pp. 379-393 in: P. Arrojo and J. Martínez (eds.), *El agua a debate desde la universidad: Por Una Nueva Cultura del Agua*. Zaragoza, Spain.
- Lammert, M. and J. D. Allan. 1999. Assessing biotic integrity of streams: Effects of scale in measuring the influence of land use/cover and habitat structure on fish and macroinvertebrates. *Environmental Management* 23:257-270.
- 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.
- Allan, J. D. and L. B. Johnson: 1997. Catchment-scale analysis of aquatic ecosystems. *Freshwater Biology* 37:107-112. (J.D. Allan and L.B. Johnson co-edited this special symposium for *Freshwater Biology*.)
- Poff, N. L., J. D. Allan, M. B. Bain, J. R. Karr, K. L. Prestegaard, B. D. Richter, R. E. Sparks and J. C. Stromberg. 1997. The natural flow regime: A paradigm for river conservation and restoration. *BioScience* 47:769-784.
- Roth, N. E., J. D. Allan, and D. L. Erickson. 1996. Landscape influences on stream biotic integrity assessed at multiple spatial scales. *Landscape Ecology*, 11(3):141-156.
- Palmer, M. A., J. D. Allan and C. A. Butman. 1996. Dispersal as a regional process affecting the local dynamics of marine and stream benthic invertebrates. *Trends in Ecology and Evolution* 11: 322-325.
- Poff, N. L. and J. D. Allan. 1995. Functional organization in stream fish assemblages in relation to hydrologic variability. *Ecology*, 76:606-627.
- Allan, J. D. and A. S. Flecker. 1993. Biodiversity conservation in running waters. *BioScience*, 43: 32-43.
- Robinson, J. G., S. Jacobson, J. D. Allan et al. 1992. Nuts and bolts: Case studies of training programs in conservation and sustainable development. *The Environmental Professional*, 14:284-292.
- Allan, J. D., A. S. Flecker and S. L. Kohler. 1991. Diel changes in epibenthic activity and gut fullness of some mayfly nymphs. *Verhandlungen der Internationalen Vereinigung für Theoretische und Angewandte Limnologie*, 24: 2881-2885.
- Allan, J. D., and A. S. Flecker. 1989. The mating biology of a mass-swarming mayfly. *Animal Behavior*, 37: 361-371.
- Flecker, A. S., J. D. Allan and N. C. McClintock. 1989. Swarming and sexual selection in a Rocky Mountain mayfly. *Holarctic Ecology*, 11: 280-285.

- Allan, J. D. and B. Malmqvist. 1989. Diel activity of *Gammarus pulex* (Crustacea) in a South Swedish stream: comparison of drift catches vs. baited traps. *Hydrobiologia*, 179: 73-80.
- Allan, J. D. and B. P. Feifarek. 1989. Distances travelled by drifting mayfly nymphs: factors influencing return to substrate. *Journal of the North American Benthological Society*, 8: 322-330.
- Allan, J. D. and A. S. Flecker. 1988. Prey preference in stoneflies: A comparative analysis of prey vulnerability. *Oecologia*, 76: 495-503.
- Allan, J. D., G. N. Herbst, R. Ortal and Y. Regev. 1988. Invertebrate drift in the Dan River, Israel. *Hydrobiologia*, 160: 155-163.
- Allan, J. D. 1987. Macroinvertebrate drift in a Rocky Mountain stream. *Hydrobiologia*, 144: 261-268.
- Allan, J. D., A. S. Flecker and N. L. McClintock. 1987. Prey size preference of carnivorous stoneflies. *Limnology and Oceanography*, 32: 864-872.
- Allan, J. D., A. S. Flecker and N. L. McClintock. 1987. Prey preference of stoneflies: Sedentary vs. mobile prey. *Oikos*, 49: 323-332.
- Flecker, A. S. and J. D. Allan. 1987. Flight direction in some rocky mountain mayflies, with observations of parasitism. *Aquatic Insects*, 10: 33-42.
- Allan, J. D., A. S. Flecker and N. L. McClintock. 1986. Diel epibenthic activity of mayfly nymphs, and its non-concordance with behavioral drift. *Limnology and Oceanography*, 31: 1057-1065.
- Allan, J. D. and E. Russek. 1985. The quantification of stream drift. *Canadian Journal of Fisheries and Aquatic Sciences*, 42: 210-215.
- Wyngaard, G. A., E. Russek and J. D. Allan. 1985. Life history variation in North temperate and subtropical populations of *Mesocyclops edax* (Crustacea: Copepoda). *Verhandlungen der Internationalen Vereinigung fur Theoretische und Angewandte Limnologie*, 22: 3149-3153.
- Allan, J. D. 1984. Life history variation in a freshwater copepod: evidence from population crosses. *Evolution*, 38: 280-291.
- Allan, J. D. 1984. The size composition of invertebrate drift in a Rocky Mountain Stream. *Oikos*, 43: 68-76.
- Allan, J. D. 1984. Hypothesis testing in studies of aquatic insects, pp. 484-597. In: V. H. Resh and D. M. Rosenberg (eds.), *Ecology of Aquatic Insects*. Praeger Publ. Co., NY.
- Allan, J. D. 1984. The production ecology of Ephemeroptera in a Rocky Mountain stream. *Verhandlungen der Internationalen Vereinigung fur Theoretische und Angewandte Limnologie*, 22: 3233-3237.
- Flecker, A. S. and J. D. Allan. 1984. The importance of predation, substrate and spatial refugia in determining lotic insect distributions. *Oecologia*, 64: 306-313.

- Allan, J. D. 1983. Food consumption by trout and stoneflies in a Rocky Mountain stream, with comparison to prey standing crop, pp. 371-390. In: T. D. Fontaine and S. M. Bartell (eds.), *Dynamics of Lotic Ecosystems*. Ann Arbor Science Publishers.
- Allan, J. D. 1983. Predator-prey relationships in streams, pp. 191-229. In: G. W. Minshall and J. R. Barnes (eds.), *Stream Ecology: Application and Testing of General Ecological Theory*. Plenum Press, NY.
- Allan, J. D. 1982. Feeding habits and prey consumption of three predaceous stoneflies (Plecoptera) in a mountain stream. *Ecology*, 63: 26-34.
- Allan, J. D. 1982. The effects of reduction in trout density on the invertebrate community of a mountain stream. *Ecology*, 63: 1444-55.
- Allan, J. D. and R. E. Daniels. 1982. Life table evaluation of chronic exposure of *Eurytemora affinis* (Copepoda) to Kepone. *Marine Biology*, 66: 179-84.
- Feifarek, B., G. A. Wyngaard, and J. D. Allan. 1982. The cost of reproduction in a freshwater copepod. *Oecologia*, 56: 166-168.
- Walton, W., S. Compton, J. D. Allan, and R. E. Daniels. 1982. The effects of acid stress on survival and reproduction of *Daphnia pulex*. *Canadian Journal of Zoology* 60: 573-579.
- Allan, J. D. 1981. Prey consumption by brook trout (*Salvelinus fontinalis*) in a mountain stream. *Canadian Journal of Fisheries and Aquatic Sciences*, 38: 184-192.
- Daniels, R. E. and J. D. Allan. 1981. Life table evaluation of chronic exposure to a pesticide. *Canadian Journal of Fisheries and Aquatic Sciences*, 38: 485-494.
- Allan, J. D. and C. E. Goulden. 1980. Some aspects of reproductive variation among freshwater zooplankton, pp. 388-410. In: W. C. Kerfoot (ed.), *The Evolution and Ecology of Zooplankton Communities*. New England Press.
- Allan, J. D. 1978. Trout predation and the size composition of stream drift. *Limnology and Oceanography*, 23: 1231-1237.
- Allan, J. D. 1978. The diet of brook trout (*Salvelinus fontinalis* Mitchell) and brown trout (*Salmo trutta* L.) in an alpine stream. *Verhandlungen der Internationalen Vereinigung fur Theoretische und Angewandte Limnologie*, 20: 2045-2050.
- Allan, J. D. 1977. An analysis of the dynamics of mixed populations of *Daphnia*, and the associated cladoceran community. *Freshwater Biology*, 7: 505-512.
- Allan, J. D., S. Richman, D. R. Heinle and R. Huff. 1977. Grazing in subadult stages of some estuarine calanoid copepods. *Marine Biology*, 43: 317-331.
- Allan, J. D. 1976. Life history patterns in zooplankton. *American Naturalist*, 110: 165-180.
- Allan, J. D., T. G. Kinsey and M. J. James. 1976. Abundances and production of copepods in the Rhode River subestuary of Chesapeake Bay. *Chesapeake Science*, 17: 86-92.
- Allan, J. D. 1975. Components of diversity. *Oecologia*, 18: 359-367.

- Allan, J. D. 1975. Faunal turnover and longitudinal zonation in an alpine stream. *Verhandlungen der Internationalen Vereinigung fur Theoretische und Angewandte Limnologie*, 19: 1646-1652.
- Allan, J. D. 1975. The diversity and distributional ecology of benthic insects in Cement Creek, Colorado, *Ecology*, 56: 1040-1053.
- Allan, J. D., H. J. Alexander and R. Greenberg. 1975. Foliage arthropod communities of crop and fallow fields. *Oecologia*, 22:49-56.
- Allan, J. D. 1974. Balancing competition and predation in cladocerans. *Ecology*, 55: 622-629.
- Allan, J. D. 1973. Competition and the relative abundance of two cladocerans. *Ecology*, 54: 484-498.
- Allan, J. D., L. W. Barnhouse, R. A. Prestbye and D. R. Strong. 1973. On foliage arthropod communities of Puerto Rican second growth vegetation. *Ecology* 54: 628-632.
- Hairston, N.G. et al. 1968. The relationships between species diversity and stability: an experimental approach with protozoa and bacteria. *Ecology*, 49: 1001-1011.

Recent invited lectures and keynotes:

- Healing Our Waters – Great Lakes Coalition 7th Annual Conference, Detroit, October 2011 “Prioritizing Great Lakes Restoration” – Keynote address
- Bevan Lecture Series, College of Fisheries, University of Washington, Jan 2010 “Protection Strategies for Freshwater Fisheries and Ecosystems”
- Second Freshwater Biology Summit, Windermere, UK , April 2010, “Achieving ecological outcomes: aquatic ecological responses to catchment management”
- University of Georgia, Athens (Student Chapter, Society for Conservation Biology), April 2010
“Conservation priorities for freshwaters”
- Invited symposium presentation: “General concepts of river restoration”. 2009 International Symposium on Aquatic Ecosystem Restoration Technologies. Seoul, South Korea, February 2009.
- Invited “Award of Excellence” presentation: “From science to stewardship”. 57th Annual Meeting North American Benthological Society, Grand Rapids, MI, May 2009.

Abstracts from presentations at professional societies:

- Allan, J.D.** and others. 2011. Prioritizing restoration and conservation opportunities in the Great Lakes. NOAA Coastal Zone Conference, Chicago 2011
- Allan, J.D., S.D.P. Smith, P.B. McIntyre, B. Halpern, et al. Project GLEAM: Mapping individual stressors across the Great Lakes. International Association of Great Lakes Research Annual Conference, Duluth, MN, 2011.

- Smith, S.D.P., J.D. Allan, P.B. McIntyre, B. Halpern, et al. Project GLEAM: Quantifying expert opinion on the relative impact of stressors in the Great Lakes. International Association of Great Lakes Research Annual Conference, Duluth, MN, 2011.
- McIntyre, P.B., J.D. Allan, S.D.P. Smith, B. Halpern, et al. Project GLEAM: Mapping individual stressors across the Great Lakes. International Association of Great Lakes Research Annual Conference, Duluth, MN, 2011.
- Allan, J.D., P.B. McIntyre, B. Halpern, et al. Prioritizing restoration and conservation opportunities in the Great Lakes. Summer Joint Meeting of American Society of Limnology and Oceanography & North American Benthological Society, Santa Fe, NM, 2010.
- Burtner, A., Kashian, D., and **Allan, J.D.** 2009. The influence of land cover on dissolved organic carbon in Marquette County, Michigan streams. 57th Annual Meeting North American Benthological Society, Grand Rapids, MI, May 2009.
- Lelli, M.L., **Allan, J.D.**, Johengen, T. and Kling, G. 2009. Net daily metabolism in agricultural drainage ditches. 57th Annual Meeting North American Benthological Society, Grand Rapids, MI, May 2009.
- Bosch, N., **Allan, J.D.**, Richard, P. and Han, H. 2009. Evaluating the impact of agricultural BMPs on riverine nutrient export to Lake Erie. 57th Annual Meeting North American Benthological Society, Grand Rapids, MI, May 2009.
- Han, H. and **Allan, J.D.** 2009. One hundred years of nutrient loading to Lake Michigan watersheds. 57th Annual Meeting North American Benthological Society, Grand Rapids, MI, May 2009.
- McIntyre, P. and **Allan, J.D.** 2009. Conserving critical ecosystem linkages: Native fish migrations in Great Lakes watersheds. 57th Annual Meeting North American Benthological Society, Grand Rapids, MI, May 2009.
- Esselman, P.C. and **Allan, J.D.** 2008. Determination of freshwater fish conservation areas in a data-poor context: An initial freshwater conservation plan for Belize, Central America. 22nd Annual Meeting, Society for Conservation Biology, Chattanooga, TN.
- Allan, J.D.**, Abell, R., Doran, P., Herbert, M. and McIntyre, P. 2008. Are terrestrial reserve networks sufficient to protect aquatic biodiversity? 22nd Annual Meeting, Society for Conservation Biology, Chattanooga, TN.
- Allan, J.D.**, Herbert, M., Doran, P., McIntyre, P. and Abell, R. 2008. Are terrestrial reserve networks sufficient to protect aquatic biodiversity? Presented at North American Benthological Society annual meeting in Salt Lake City, Utah, May 25-28, 2008.
- Janssen, J. and **Allan, J.D.** 2008. Can the design of agricultural channels improve stream condition? Presented at North American Benthological Society annual meeting in Salt Lake City, Utah, May 25-28, 2008.
- Lelli, M., **Allan, J.D.** and T. Johengen. 2008. Net daily metabolism in agricultural drainage ditches. Presented at North American Benthological Society annual meeting in Salt Lake City, Utah, May 25-28, 2008.
- Kelley, Jill E. and **J. David Allan**. 2007. The ecological integrity of agricultural headwaters: a paired-reached comparison of county drains and natural stream channels. Presented at North American Benthological Society annual meeting in Columbia SC, May 2007.

Janssen, J and **J. David Allan**. 2007. To Build a Better Ditch: Can Channel Re-design Improve Ecological Integrity? Presented at North American Benthological Society annual meeting in Columbia SC, May 2007.

Esselman P. and **J. David Allan**. 2007. Modeling the spread of invasive African tilapia in northeastern Mesoamerica. Presented at North American Benthological Society annual meeting in Columbia SC, May 2007.

Bosch, N. **J. David Allan**, Thomas H. Johengen and Haejin Han., 2007. The Influence of Natural Lakes and Artificial Impoundments on the Transport and Fate of Nitrogen and Phosphorus in two Southeastern Michigan River Catchments. Presented at North American Benthological Society annual meeting in Columbia SC, May 2007.

Characterizing a stressor gradient for state and tribal water quality programs. J.L. Lessard, J.D. Allan, J.J.H. Ciborowski, and L.B. Johnson. North American Benthological Society, Annual Meeting, Anchorage AK, June 2006.

River and riparian restoration in the Southwest: Results of the National River Restoration Science Synthesis project. J.J. Follstad Shah, C.N. Dahm, S.P. Gloss, E.S. Bernhardt, M.A. Palmer, and J.D. Allan. North American Benthological Society, Annual Meeting, Anchorage AK, June 2006.

Links among landscape, habitat, and stream biology: Hierarchical relationships in streams of southeastern Michigan. D.M. Infante and J.D. Allan. North American Benthological Society, Annual Meeting, Anchorage AK, June 2006.

Using knowledge elicitation to inform a Bayesian belief network model of a stream ecosystem. Paul Black, Tom Stockton, Lester Yuan, J. David Allan, Walter K. Dodds, Lucinda B. Johnson, Margaret Palmer, Bruce Wallace, and Art Stewart. North American Benthological Society, Annual Meeting, New Orleans, June 2005.

Species Traits and Assemblage Structure Across Anthropogenic Environmental Gradients in Streams of Southeastern Michigan. J. David Allan and Dana Infante. School of Natural Resources, University of Michigan, Ann Arbor, MI, USA. North American Benthological Society, Annual Meeting, New Orleans, June 2005.

River Restoration in the United States: a Perspective from the Upper Midwest. Gretchen G. Alexander and J. David Allan. School of Natural Resources & Environment, University of Michigan, 430 East University, School of Natural Resources and the Environment, Ann Arbor, MI, USA. North American Benthological Society, Annual Meeting, New Orleans, June 2005

River Restoration in the United States: a Synthesis of Restoration Activities.

E.S. Bernhardt¹, Margaret Palmer², and J. David Allan³. ¹Duke University, Department of Biology, Durham, NC, USA, ²University of Maryland, Departments of Entomology and Biology, College Park, MD, USA, ³University of Michigan, School of Natural Resources and the Environment, Ann Arbor, MI, USA. North American Benthological Society, Annual Meeting, New Orleans, June 2005

Effects Of Enso On Concentrations And Export Of Nutrients, Carbon, And Suspended Solids In Rivers Of The Orinoco Basin. Castillo, M, M, Allan, J, D., Kling, G, W. Universidad Simon Bolivar, Caracas, Venezuela, University of Michigan, Ann Arbor, USA. American Society of Limnology and Oceanography, Annual Meeting, 2005 Santiago de Compostela, Spain

Flow Alteration in Rivers of the Great Lakes. J.D. Allan, School of Natural Resources & Environment, University of Michigan, Ann Arbor. Sustainable Waters Roundtable, Ann Arbor, MI, May 2005

- Natural versus anthropogenic landscape controls on stream habitat. Infante, D. and J.D. Allan. American Fisheries Society, Anchorage, Alaska, Sept 2005
- J.G.O. Wilhelm, J. D. Allan, K.J. Wessell, R.W. Merritt, K.W. Cummins. 2003. Habitat Evaluation of Non-wadeable Rivers. 51st Annual Meeting of North American Benthological Society, Athens, GA
- M.G.S. Wood and J. D. Allan. 2003. Land Use versus Instream Habitat: The Response of Invertebrate Metrics. 51st Annual Meeting of North American Benthological Society, Athens, GA
- K.J. Wessell, R.W. Merritt, K.W. Cummins J.G.O. Wilhelm, J. D. Allan. 2003. Developing a Biological Assessment Program for Non-wadeable rivers in Michigan using Macroinvertebrates. 51st Annual Meeting of North American Benthological Society, Athens, GA
- E. Bernhardt, M. Palmer and D. Allan. 2003. Improving the science of river restoration: the National River Restoration. 88th Annual Meeting of the Ecological Society of America, Savannah, Georgia
- D. Infante and J.D. Allan. 2003. Does Landscape Variability Influence Stream Habitat? 17th Annual Meeting of the Society for Conservation Biology, Duluth MN
- Allan, J.D. and M.S. Wipfli. 2002. Influence of streamside vegetation on terrestrial invertebrate subsidies to salmonid food webs. Annual Meeting, North American Benthological Society, Pittsburgh, June.
- Hinz, L.C., Jr., M.J. Wiley, P.W. Seelbach and J.D. Allan. 2002. Flow characterization from landscape variables: an alternative approach for estimating natural flow regimes. Annual Meeting, North American Benthological Society, Pittsburgh, June.
- Infante, Dana and J.D. Allan. 2002. Habitat quality and its relationship to landscape pattern in exurbanizing watersheds of Southeastern Michigan. Annual Meeting, North American Benthological Society, Pittsburgh, June.
- Kopplin, S.E. and J.D. Allan. 2002. Reach and landscape-scale determinants of freshwater mussel (Bivalvia: Unionidae) distributions in an agricultural watershed of Southeastern Michigan. Annual Meeting, North American Benthological Society, Pittsburgh, June.
- Wilhelm, J.G.O., J. D. Allan, K.J. Wessell, R.W. Merritt and K.W. Cummins. 2002. Development of a habitat assessment protocol for Michigan's large rivers - differentiating impacted from non-impacted river segments. Annual Meeting, North American Benthological Society, Pittsburgh, June.
- Wessel, K.J., R.W. Merritt, K.W. Cummins, J.G.Odyke and J. D. Allan. 2002. Development of a biological assessment program for nonwadeable rivers in Michigan. Annual Meeting, North American Benthological Society, Pittsburgh, June.
- Wood, M.G.S. and J.D. Allan. 2002. The relationship between land cover and stream condition: A comparison of invertebrate and landscape metrics. Annual Meeting, North American Benthological Society, Pittsburgh, June.
- Allan, J.D., R. Cifaldi and D Infante. 2002. Landscape pattern and stream habitat quality in Southeastern Michigan. Annual Meeting, Ecological Society of America, Tucson, AZ, August.
- Nassauer, Joan Iverson, J. David Allan, Sandra Kosek, and Dana Infante. 2002. Exurban residential development: Effects on public perception and water quality. Annual Meeting, Ecological Society of America, Tucson, AZ, August.

- Allan, J. David, Gloria Helfand and Joan Nassauer. 2001. Development and testing of a decision support system for river rehabilitation. Water and Watersheds Research Grants Program Review, Environmental Protection Agency, National Science Foundation and U.S. Department of Agriculture, San Francisco CA, April.
- Allan, J. David, Leon Hinz, and colleagues. 2001. Flow alteration in rivers of the Great Lakes Basin: Extent and effects. Annual Meeting, North American Benthological Society, LaCrosse WI, June.
- Mackay, J. J., S. E. Greene, J. D. Allan, and Leon Hinz. 2001. Building a dam database. Annual Meeting, North American Benthological Society, LaCrosse WI, June.
- Diana, Matthew, Dana Infante and J. David Allan. 2001. Spatial variation in stream condition: Relationships among measures of habitat, fish diversity, and landscape. Annual Meeting, North American Benthological Society, LaCrosse WI, June.
- Allan, J. David, Leon Hinz and colleagues. 2001. Flow alteration in rivers of the Great Lakes basin: Extent and effects. "Managing River Flows for Biodiversity: A conference on Science, Policy and Conservation Action," Colorado State University, Fort Collins CO, July.
- Hinz Jr., Leon C., Michael J. Wiley, J. David Allan, and Paul Seelbach. 2001. "Managing River Flows for Biodiversity: A conference on Science, Policy and Conservation Action," Colorado State University, Fort Collins CO, July.
- Allan, J. D., L. Hinz, and colleagues. 2001. River flow regime as a restoration target: assessing flow alteration in rivers of the Great Lakes Basin. Annual Meeting, Ecological Society of America, Madison WI, August.
- Hinz, Leon, J. David Allan and colleagues. 2000. Influence of flow alteration on Michigan rivers. Midwest Fish & Wildlife Conference, Minneapolis MN, December.
- Alexander, J. S. and J. D. Allan. 1999. Two decades of post-logging recovery: examining stream communities in southeast Alaska. North American Benthological Society, Duluth MN, May 1999.
- Allan, J. D., A. S. Flecker, S. Segnini and D. Taphorn. 1999. Biological diversity in Andean Rivers: A cross-watershed comparison. Society for Conservation Biology, College Park, MD, June 1999.
- Allan, J. D., A. J. Brenner, L. Fernandez, A. S. Flecker, S. Segnini and D. Taphorn. 1998. Changing landscapes in the Tropical Andes: Human dimension and ecological consequences. International Association of Landscape Ecology, East Lansing, MI, March 1998.
- Brenner, A. J., P. L. Richards and J. D. Allan. 1998. Evaluating the impact of future land use patterns on river flow and water quality. International Association of Landscape Ecology, East Lansing, MI, March 1998.
- Allan, J. D., A. S. Flecker, S. Segnini, D. Taphorn, A. J. Brenner, and R. Holzenthal. 1998. Distributional ecology and biological diversity of Andean Rivers. North American Benthological Society, Prince Edward Island, Canada, June 1998.
- Roth, N. E., M. T. Southerland, P. F. Kazyak, S. A. Stranko and J. D. Allan. 1998. Multi-scale analyses of landscape influences on stream biota in Michigan and Maryland. American Fisheries Society.
- Allan, J. D. and M. Wipfli. 1998. Influence of streamside vegetation on the supply of terrestrial invertebrates to streams. American Society of Limnology & Oceanography, jointly with the Ecological Society of America, St. Louis, June 1998.

- Abell, R., and J. David Allan. 1996. Effects of riparian forest loss on stream temperature in a Midwestern agricultural catchment. North American Benthological Society, Spring 1996.
- Allan, J. D., D. L. Erickson, and J. Fay. 1995. Managing the landscape/waterscape interface: An interdisciplinary approach Using GIS. North American Benthological Society, Keystone, California, Spring 1995.
- Bright, E., and J. D. Allan. 1995. Assessing relationships between land use and in-stream water quality parameters in a human-influenced watershed. North American Benthological Society, Keystone, California, Spring 1995.
- Castillo, M. M., and J. D. Allan. 1995. Leaf litter dynamics in Fleming Creek, Michigan. North American Benthological Society, Keystone, California, Spring 1995.
- Roth, N. E., J. D. Allan, and D. Erickson. 1994. Riparian vegetation and watershed protection: Issues of measurement and scale. North American Benthological Society, Spring 1994.
- Schroeder, K., and J. D. Allan. 1994. Macroinvertebrate distribution in an agricultural watershed: The influence of in-stream habitat. North American Benthological Society, Spring 1994.
- Poff, N. L., J. D. Allan, P. L. Angermeier, P. Seelbach, and M. J. Wiley. 1993. Fish community structure along hydrologic gradients in Virginia and Michigan streams. North American Benthological Society, Spring 1993.
- Roth, N. E., and J. D. Allan. 1993. Riparian and watershed influences on stream fish assemblages: An assessment of biotic integrity. North American Benthological Society, Spring 1993.
- Allan, J. D., N. E. Roth, and K. Schroeder. 1992. Relationships among habitat quality and metrics of biological integrity in Michigan farmland streams. North American Benthological Society, Louisville, KY, May 1992.
- Allan, J. D. 1992. Challenges of biodiversity conservation in the American Midwest. Society for conservation biology, Blacksburg, VA, June 1992.
- Allan, J. D. 1991. Conserving biodiversity in lotic ecosystems (Plenary Address). North American Benthological Society, Santa Fe, NM, May 1991. (also one oral and one poster presentation.)
- Allan, J. D. 1991. Conserving biodiversity in lotic ecosystems. Society for Conservation Biology, Madison WI, June 1991.