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Series Editor's Foreword *by Jeffrey J. McDonnell*

Riparian Zone Hydrology and Biogeochemistry: A Review

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The Benchmark Papers

A Landscape Ecology

- A1 **Cummins, K. W.** (1974) Structure and function of stream ecosystems. *Bioscience* 24, 631–641.
- A2 **Hynes, H. B. N.** (1975) The stream and its valley. *Verhandlungen Internationale Vereinigung für theoretische und angewandte Limnologie* 19, 1–15
- A3 **Jones, J. R., Borofka, B. P. & Bachmann, R. W.** (1976) Factors affecting nutrient loads in some Iowa streams. *Water Research* 10, 117–122.
- A4 **Vannote, R. L., Minshall, G. W., Cummins, K. W., Sedell, J. R. & Cushing, C. E.** (1980) The river continuum concept. *Canadian Journal of Fisheries and Aquatic Sciences* 37, 130–137.
- A5 **Triska, F. J., Sedell, J. R., Cromack, K. Jr, Gregory, S. V. & McCorison, F. M.** (1984) Nitrogen budget for a small coniferous forest stream. *Ecological Monographs* 54, 119–140.
- A6 **Pinay, G. & Décamps, H.** (1988) The role of riparian woods in regulating nitrogen fluxes between the alluvial aquifer and surface water: a conceptual model. *Regulated Rivers: Research and Management* 2, 507–516.

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B Hydrology of the Riparian Zone

- B1 **Troxell, H. C.** (1936) The diurnal fluctuation in the ground-water and flow of the Santa Ana River and its meaning.
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- B2 **Hursh, C. R. & Brater, E. F.** (1941) Separating storm-hydrographs from small drainage-areas into surface- and subsurface-flow.
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- B3 **Dunford, E. G. & Fletcher, P. W.** (1947) Effect of removal of stream-bank vegetation upon water yield.
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- B5 **Dunne, T. & Black, R. D.** (1970) An experimental investigation of runoff production in permeable soils.
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- B6 **Abdul, A. S. & Gillham, R. W.** (1984) Laboratory studies of the effects of the capillary fringe on streamflow generation.
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C Linking Riparian Zone Hydrology to Solute Transport

- C1 **Jackson, W. A., Asmussen, L. E., Hauser, E. W. & White, A. W.** (1973) Nitrate in surface and subsurface flow from a small agricultural watershed.
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- C2 **Foster, I. D. L. & Walling, D. E.** (1978) The effects of the 1976 drought and autumn rainfall on stream solute levels.
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- C3 **Pilgrim, D. H., Huff, D. D. & Steele, T. D.** (1979) Use of specific conductance and contact time relations for separating flow components of storm runoff.
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- C4 **Trudgill, S. T., Pickles, A. M., Smettem, K. R. J. & Crabtree, R. W.** (1982) Soil-water residence time and solute uptake. 1. Dye tracing and rainfall events.
Journal of Hydrology 60, 257–279.
- C5 **McDonnell, J. J.** (1990) A rationale for old water discharge through macropores in a steep, humid catchment.
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- C6 **Waddington, J. M., Roulet, N. T. & Hill, A. R.** (1993) Runoff mechanisms in a forested groundwater discharge wetland.
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D Biogeochemical Processes and Methods

- D1 **Reddy, K. R. & Patrick, W. H. Jr** (1975) Effect of alternate aerobic and anaerobic conditions on redox potential, organic matter decomposition and nitrogen loss in a flooded soil.
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- D2 **Yoshinari, T., Hynes, R. & Knowles, R.** (1977) Acetylene inhibition of nitrous oxide reduction and measurement of denitrification and nitrogen fixation in soil. *Soil Biology and Biochemistry* 9, 177–183.
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- E Riparian Buffering of Surface and Subsurface Flow
- E1 **Lowrance, R. R., Todd, R. L. & Asmussen, L. E.** (1984) Nutrient cycling in an agricultural watershed: I. Phreatic movement. *Journal of Environmental Quality* 13, 22–27.
- E2 **Peterjohn, W. T. & Correll, D. L.** (1984) Nutrient dynamics in an agricultural watershed: observations on the role of a riparian forest. *Ecology* 65, 1466–1475.
- E3 **Jacobs, T. C. & Gilliam, J. W.** (1985) Riparian losses of nitrate from agricultural drainage waters. *Journal of Environmental Quality* 14, 472–478.
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- E6 **McDowell, W. H., Bowden, W. B. & Asbury, C. E.** (1992) Riparian nitrogen dynamics in two geomorphologically distinct tropical rain forest watersheds: subsurface solute patterns. *Biogeochemistry* 18, 53–73.
- E7 **Haycock, N. E. & Burt, T. P.** (1993) Role of floodplain sediments in reducing the nitrate concentration of subsurface run-off: a case study in the Cotswolds, UK. *Hydrological Processes* 7, 287–295.
- F In-stream Processes
- F1 **Webster, J. R. & Patten, B. C.** (1979) Effects of watershed perturbation on stream potassium and calcium dynamics. *Ecological Monographs* 49, 1, 51–72.
- F2 **Bencala, K. E. & Walters, R. A.** (1983) Simulation of solute transport in a mountain pool-and-riffle stream: a transient storage model. *Water Resources Research* 19, 718–724.
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- F6 **Holmes, R. M., Fisher, S. G. & Grimm, N. B.** (1994) Parafluvial nitrogen dynamics in a desert stream ecosystem.
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