

Patrick Center for Environmental Research

Peer-Reviewed Publications

(1933-2009)

Two Thousand Nine~2009

Ashley, J.T.F., M.L. Webster, J.E. Baker, **R. Horwitz**, and **D.J. Velinsky**. 2009. Polychlorinated biphenyls in sediment and biota from the Delaware River estuary. *Proceedings of the Academy of Natural Sciences of Philadelphia* (**in press**)

Enache, MD and M. Potapova. 2009. A new species of Sellaphora (SELLAPHORACEAE) from Hannaberry Lake, Arkansas, U.S.A. *Acta Botanica Croatica* (**in press**)

Enache, MD and BF Cumming 2009. Extreme fires under warmer and drier conditions inferred from sedimentary charcoal morphotypes from Opatcho Lake, central British Columbia, Canada. *The Holocene* (**in press**)

Flinders, C.A. and **D.D. Hart**. 2009. Effects of pulsed flows on nuisance periphyton growths in rivers: a mesocosm study. *River Research and Applications*. (**in press**).

McGee, B.L., A.E. Pinkney, **D.J. Velinsky**, **J.A. Ashley**, D.J. Fisher, L.C. Ferrington and T.J. Norberg-King. 2009 Using the sediment quality triad to characterize baseline conditions in the Anacostia River, Washington, DC. *Environmental Monitoring and Assessment* (**in press**)

McNair, J. N. 2009. Comparison of two methods for predicting effects of landcover-related stressors on stream biotic integrity at the catchment scale. *Proceedings of the Academy of Natural Sciences of Philadelphia*. (**in press**)

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Mead, J.V., M.J. Connerton, C.A.S.Hall, and N.H.Ringler. 2009. The effects of riparian forest cover on primary productivity in small temperate stream. *Journal of the North American Benthological Society*. (in press)

Mead, J.V. 2009. The fundamental conflict between economic growth and wildlife conservation and its implications for a post peak-oil future. In “*Peak Oil, Economic Growth, and Wildlife Conservation*”. J. Edward Gates and Brian Czech, editors. Elsevier publishers. 300 pp. (in press).

Two Thousand Eight~2008 (6)

Bushaw-Newton, K.L, D.A. Kreeger, S. Doaty, & **D.J. Velinsky**. 2008. Utilization of Spartina-and Phragmites-derived dissolved organic matter by bacteria and ribbed mussels (*Geukensia demissa*) from Delaware Bay salt marshes. *Estuaries and Coasts* 31: 694-703.

Flinders, C. A., R. J. Horwitz, & T. Belton. 2008. Relationship of fish and macroinvertebrate communities in the mid-Atlantic uplands: implications for integrated assessments. *Ecological Indicators* 8: 588-598

Horwitz, R.J., C.H. Hession, T. Johnson, P. Overbeck and B. Sweeney. 2008. Effects of riparian vegetation and watershed urbanization on fishes in streams of the mid-Atlantic Piedmont. *J. Amer. Water. Res. Assoc.* 44:721-741.

Cooper, J.E., **J.V. Mead**, J.M Farrell, and R.E. Werner. 2008. Potential impacts of spawning habitat changes on the segregation of pike (*Esox lucius*) and muskellunge (*E. masquinongy*) in the Upper St. Lawrence River. *Hydrobiologia* 601(1): 41

Newbold, J.D., S. Herbert, B. W. Sweeney, and **P. Kiry**. 2008. Water Quality Functions of a 15-year-Old Riparian Forest Buffer System. In "Riparian Ecosystems and Buffer's:

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Working at the Water's Edge," AWRA 2008 Summer Specialty Conference, Virginia Beach, VA, June 30 - July 2, 2008.

Ponader, K.C., D.F. Charles, T.J. Belton, and D.M. Winter. 2008. Total phosphorus inference models and indices for coastal plain streams based on benthic diatom assemblages from artificial substrates. *Hydrobiologia* 610: 139-152.

Two Thousand Seven~2007(18)

Araújo, A. & McNair, J.N. 2007. Individual- and population-level effects of antimicrobials on the rotifers, *Brachionus calyciflorus* and *B. plicatilis*. *Hydrobiologia* 593: 185–199.

Ashley, J.T.F., D. Libero, E. Halscheid, L. Zaoudeh, & H. M. Stapleton. 2007. Polybrominated Diphenyl Ethers in American Eels (*Anguilla rostrata*) from the Delaware River, USA. *Bulletin of Environmental Contamination and Toxicology* 79: 99-103.

Flinders, C. A. & D. D. Magoulick. 2007. The role of predation risk and foraging profitability in habitat selection of a lotic crayfish: effect of depth and crayfish size. *Journal of the North American Benthological Society* 26: 767-778

Flinders, C. A. & D. D. Magoulick. 2007. Habitat selection and the importance of environmental variables in lotic crayfish assemblages. *Journal of Crustacean Biology* 27: 242-254.

Johnson, T.E., McNair, J.N., Srivastava, P., & Hart, D.D. 2007. Stream ecosystem responses to spatially variable landcover: a model for developing riparian restoration strategies. *Freshwater Biology* 52: 680-695.

Morales, E. A. & Trainor, F. R. 2007. The role of phenotypic plasticity in the interpretation of ecological data. In: Feyen, J., Aguirre, L. F. & Moraes, R. M. (Eds.). Congreso internacional sobre desarrollo y medio ambiente y recursos naturales: sostenibilidad a múltiples niveles y escalas/Internacional congress on development,

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environment and natural resources: Multi-level and multi-scale sustainability. Vol. II. pp. 1150-1157. Universidad Mayor de San Simón. Talleres Gráficos Kipus. Cochabamba, Bolivia.

Morales, E. A. & Vis, M. 2007. Epilithic diatoms (Bacillariophyceae) from cloud forest and alpine streams in Bolivia, South America. *Proceedings of the Academy of Natural Sciences of Philadelphia* 156: 123-155.

O'Connor, M.P., Agosta, S.J., Hansen, F., Kemp, S.J., Sieg, A.E., **McNair, J.N.** & Dunham, A.E. 2007. Phylogeny, regression, and the allometry of physiological traits. *American Naturalist* 170: 431–442.

O'Connor, M.P., Agosta, S.J., Hansen, F., Kemp, S.J., Sieg, A.E., Wallace, B.P., **McNair, J.N.** & Dunham, A.E. 2007. Size, selection, and physiology: Reconsidering the mechanistic basis of the metabolic theory of ecology. *Oikos* 116: 1058–1072.

Patrick, R., J. Palms, **D. Kreeger**, & C.Harris. 2007. 25 years of radionuclides in the Susquehanna River via periphyton biomonitors. *Health Physics Journal* 92(1): 1-9.

Palms J., **R. Patrick**, **D. Kreeger**, & C.Harris. 2007. Terrestrial and aquatic biomonitors: 25 years of radionuclides detection. *Health Physics Journal* 92(3): 219-225.

Ponader KC, DF Charles & TJ Belton. 2007. Diatom-based TP and TN inference models and indices for monitoring nutrient enrichment of New Jersey streams. *Ecological Indicators* 7:79-93.

Ponader, K.C. & **M.G. Potapova**. 2007. Diatoms from the genus *Achnantheidium* in flowing waters of the Appalachian Mountains (North America): Ecology, distribution and taxonomic notes. *Limnologica* 37: 227-241.

Potapova, M. & P.B. Hamilton. 2007. Morphological and ecological variation within the *Achnantheidium minutissimum* (Bacillariophyceae) species complex. *Journal of Phycology* 43:561-575.

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Potapova M & DF Charles. 2007. Diatom metrics for monitoring eutrophication in rivers of the United States. *Ecological Indicators* 7: 48-70.

Siver, P. A., Hamilton, P. B. & **Morales, E. A.** 2007. Notes on the genus *Nupela* (Bacillariophyceae) including the description of a new species, *Nupela scissura* sp. nov. and an expanded description of *Nupela paludigena*. *Phycological Research* 55: 125-134.

Weis, P. & **J.T.F. Ashley.** 2007. Contaminants in Fish of the Hackensack Meadowlands, New Jersey: Size, Sex, and Seasonal Relationships as Related to Health Risks. *Arch. Environ. Contam. Toxicol.* 52: 80-89.

Two Thousand Six~2006 (27)

Ashley J.T.F, K.L. Bushaw-Newton, M. Wilhelm, A. Boettner, G. Drames & D.J. Velinsky. 2006. The effects of small dam removal on the distribution of sedimentary contaminants. *Environmental Management and Assessment* **114**: 287-312.

Bernhardt E, SE Bunn, **DD Hart**, B Malmqvist, T Muotka, RJ Naiman, C Pringle, M Reuss & B van Wilgen 2006. Perspective: The challenge of ecologically sustainable water management. *Water Policy* **8(5)**: 475-479.

Bahnck, C.M. and **D.M. Fonseca.** 2006. Rapid assay to identify the two genetic forms of *Culex (Culex) pipens L.* (Dipera: Culicidae) and hybrid populations. *American Journal of Tropical Medicine and Hygiene* **75**: 251-255.

Beadell JS, Ishtiaq F, Covas R, Melo M, Warren BH, Atkinson CT, Bensch S, Graves GR, Jhala YV, Peirce MA, Rahmani AR, **Fonseca DM** & RC Fleischer. 2006. Global Phylogeography of Hawaii's Avian Malaria. *Proceedings of the Royal Society of London* 273(1604):2935-44.

Cardinale BJ, H Hillebrand & **DF Charles.** 2006. Geographic patterns of diversity in streams predicted by a multivariate model of disturbance and productivity. *Journal of Ecology* 94(3): 609-618.

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Charles, D.F., R.J. Stevenson, M. Kelly, and L. Ector. 2006. Workshop report. Diatoms and environmental assessment. In A. Witkowski (ed.), *Proceedings of the 18th International Diatom Symposium*. Miedzyzdroje, Poland, 2004. A. Witkowski, editor. Biopress Limited, Bristol.

Charles DF, FW Acker, DD Hart, CW Reimer & PB Cotter. 2006. Large-scale regional variation in diatom-water chemistry relationships: Rivers of eastern USA. *Hydrobiologia* 561(1): 27-57.

Church TM, C Sommerfield, **D.J. Velinsky**, D Point, C Benoit, D Amouroux, D Plaa & O Donard. Marsh sediments as records of sedimentation, eutrophication and metal pollution in the urban Delaware Estuary. *Marine Chemistry* 102(1-2): 72-95.

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Fairchild, G.W. and **D.J. Velinsky.** 2006. Effects of small ponds on headwater stream water chemistry. *Lake and Reservoir Management*. 22(4): 321-330.

Fingerut, J.T., Hart, D.D. and McNair, J.N. 2006. Silk filaments enhance the settlement of stream insect larvae. *Oecologia* 150: 202–212.

Fonseca DM, JL Smith, RC Wilkerson & RC Fleischer. 2006. Pathways of expansion and multiple introductions illustrated by large genetic differentiation among worldwide populations of southern house mosquito. *American Journal of Tropical Medicine and Hygiene* 74: 284-289.

Keyghobadi N, LaPointe D, Fleischer RC & **DM Fonseca** 2006. Fine-scale population genetic structure of a wildlife disease vector: the southern house mosquito on the island of Hawaii. *Molecular Ecology* 15: 3919-3930.

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Keyghobadi N, **Unger KP**, Weintraub JD & **DM Fonseca**. 2006. Remnant populations of the regal fritillary (*Speyeria idalia*) in Pennsylvania: local genetic structure in a high gene flow species. *Conservation Genetics* 7: 309-313.

Lowe, R. L., **Morales, E. A.** & Kilroy, C. 2006. Frankophila biggsii (Bacillariophyceae), a new diatom species from New Zealand. *New Zealand Journal of Botany* 44:41-46.

McNair, J.N. 2006. Probabilistic settling in the Local Exchange Model of turbulent particle transport. *Journal of Theoretical Biology* 241: 420–437.

Morales, E. A. 2006. Algas de Bolivia. *Bolivia Ecológica* 41: 1-36.

Morales, E. A. & Manoylova, K. M. 2006. Staurosirella incognita Morales et Manoylov sp. nov., a non-spiny species from North America, with an emended description of Staurosirella Williams et Round (Bacillariophyceae). In: *Proceedings of the 18th International Diatom Symposium*, Poland, 2004. p. 325-336. Biopress Ltd. Bristol England.

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Morales, E. A. 2006. Small Planothidium Round et Bukhtiyarova (Bacillariophyceae) taxa related to P. dau (Foged) Lange-Bertalot from the United States. *Diatom Research* 21: 325-342.

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Potapova, M. 2006. *Achnantheidium zhakovschikovii* sp. nov. (Bacillariophyta) and related species from rivers of Northwestern Russia. *Nova Hedwigia*, 82(3-4):399-408.

Potapova, M. G. and **Winter D.** 2006. Use of nonparametric multiplicative regression for modeling diatom habitat: a case study of three *Geissleria* species from North America. Pages 319-332 In Ognjanova-Rumenova, N. and K. Manoylov (eds.) *Advances in Phycological Studies. Festschrift in Honour of Prof. Dobrina Temniskova-Topalova*. Pensoft Publishers & University Publishing House, Sofia-Moscow.

Siver, P. A. Hamilton, P. B. & **Morales E. A.** 2006. Two new planktonic species of *Eunotia* (Bacillariophyceae) From Freshwater Waterbodies in North Carolina, U.S.A. *Algological Studies* 119: 1-16.

Siver, P. A., **Morales E. A.**, van de Vijver, B, Smits, M., Hamilton, P. B., Lange-Bertalot, H. & Hains, J. J. 2006. Observations on *Fragilaria longifusiformis* comb. nov. et nom. nov. (Bacillariophyceae), a widespread planktic diatom described from North America and Europe. *Phycological Research* 54: 183-192.

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Two Thousand Five~2005 (18)

Bednarek AT & **DD Hart** 2005. Modifying dam operations to restore rivers: Ecological responses to dam mitigation in the Tennessee River. *Ecological Applications* **15**: 997-1008.

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Brown, J., J. Perillo, T. Kwak and **R.J. Horwitz**. 2005. Implications of *Pylodictis olivaris* (flathead catfish) introduction into the Delaware and Susquehanna Drainages. *Northeastern Naturalist* **12(4)**: 473-484.

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Fairchild GW, JN Anderson & **DJ Velinsky** 2005. The trophic state "chain of relationships" in ponds: does size matter? *Hydrobiologica* **539**: 35-46.

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Morales EA & M Le 2005. A new species of the diatom genus *Adlafia* (Bacillariophyceae) from the United States. *Proceedings of the Academy of Natural Sciences of Philadelphia* **154**:149-154.

Morales EA 2005. Observations of the morphology of selected fragilarioid diatoms (Bacillariophyceae) common in ecological studies from the United States. *Phycological Research* **53**(4): 225-239.

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Two Thousand Four~2004 (12)

Bram MR & **JN McNair** 2004. Seed germinability and its seasonal onset in three populations of Japanese knotweed. *Weed Science* 52: 759-767.

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Potapova MG, **DF Charles**, **KC Ponader** & **DM Winter** 2004. Quantifying species indicator values for trophic diatom indices: a comparison of approaches. *Hydrobiologia* **517**:25-41.

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Two Thousand Three~2003 (14)

Ashley, J.T.F., R. Horwitz, B. Ruppel, & J. Steinbacher. 2003. A comparison of accumulated PCB patterns in American eels and striped bass from the Hudson and Delaware River estuaries. *Marine Pollution Bulletin*. 46:1294-1308.

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Two Thousand Two~2002(18)

Bram, M.R. 2002. Effects of inbreeding in three populations of the dioecious annual *Amaranthus cannabinus* (Amaranthaceae). *Journal of the Torrey Botanical Society* **129**(4): 298-310.

Bushaw-Newton KL, DD Hart, JE Pizzuto, JR Thomson, J Egan, JT Ashley, TE Johnson, RJ Horwitz, M. Keeley, J. Lawrence, DF Charles, C Gatenby, DA Kreeger, T Nightengale, RL Thomas & DJ Velinsky 2002. An integrative approach towards understanding ecological responses to dam removal: The Manatawny Creek Study. *Journal of the American Water Resources Association* **38**:1581-1599.

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