

2011

[44] Foulquier, A., Malard F., Mermillod-Blondin, F., Montuelle, B., Dolédec, S., Volat, B., Gibert, J., 2011 - Surface water linkages regulate trophic interactions in a groundwater food web. *Ecosystems*, 14, 1339-1353.

[43] Piscart, C., Mermillod-Blondin, F., Maazouzi, C., Merigoux S., Marmonier, P. 2011 - Potential impact of invasive amphipods on leaf litter recycling in aquatic ecosystems. *Biological Invasions*, 13(2) : 2861-2868.

[42] Piscart, C., Navel, S., Maazouzi, C., Montuelle, B., Cornut, J., Mermillod-Blondin, F., Creuzé Des Châtelliers, M. C., Simon, L., Marmonier, P., 2011 - Leaf litter recycling in benthic and hyporheic layers in agricultural streams with different types of land use. *Science of the Total Environment*, 409(20) : 4373-4380.

[41] Mermillod-Blondin, F., 2011 - The functional significance of bioturbation and biodeposition on biogeochemical processes at the water-sediment interface in freshwater and marine ecosystems. *Journal of the North American Benthological Society*, 30(3) : 770-778.

[40] Navel, S., Mermillod-Blondin, F., Montuelle, B., Chauvet, E., Simon, L., Marmonier, P., 2011 - Water-Sediment Exchanges Control Microbial Processes Associated with Leaf Litter Degradation in the Hyporheic Zone : a Microcosm Study. *Microbial Ecology*, 61(4) : 968-979.

[39] Foulquier, A., Mermillod-Blondin, F., Malard, F., Gibert, J., 2011 - Response of sediment biofilm to increased dissolved organic carbon supply in groundwater artificially recharged with stormwater. *Journal of Soils and Sediments*, 11 : 382-393.

[38] Navel, S., Simon, L., Lecuyer, C., Fourel, F., Mermillod-Blondin, F., 2011 - The shredding activity of gammarids facilitates the processing of organic matter by the subterranean amphipod *Niphargus rhenorhodanensis*. *Freshwater Biology*, 56, 481-490.

2010

[37] Foulquier, A., Simon, L., Gilbert, F., Fourel, F., Malard, F., Mermillod-Blondin, F., 2010 - Relative influences of DOC flux and subterranean fauna on microbial abundance and activity in aquifer sediments: new insights from ¹³C-tracer experiments. *Freshwater Biology*, 55 : 1560-1576.

[36] Nogaro, G., Datry, T., Mermillod-Blondin, F., Descloux, S., Montuelle, B., 2010 - Influence of streambed sediment clogging on microbial processes in the hyporheic zone. *Freshwater Biology*, 55 : 1288-1302.

[35] Foulquier, A., Malard, F., Mermillod-Blondin, F., Datry, T., Simon, L., Montuelle, B., Gibert, J., 2010 - Vertical change in dissolved organic carbon and oxygen at the water

table region of an aquifer recharged with stormwater : biological uptake or mixing ?
Biogeochemistry, 99 : 31-47.

[34] Navel, S., Mermillod-Blondin, F., Montuelle, B., Chauvet, E., Simon, L., Piscart, C., Marmonier, P., 2010 - Interactions between fauna and sediment control the breakdown of plant matter in river sediments. Freshwater biology, 55(4) : 753-766.

[33] Mermillod-Blondin F., Lemoine D., 2010 - Ecosystem engineering by tubificid worms stimulates macrophyte growth in poorly oxygenated wetland sediments. Functional Ecology, 24 : 444-453.

2009

[32] Nogaro G., Mermillod-Blondin F., 2009. Stormwater sediment and bioturbation influences on hydraulic functioning, biogeochemical processes, and pollutant dynamics in laboratory infiltration system. Environmental Science and Technology 43: 3632-3638.

[31] Nogaro G., Mermillod-Blondin F., Valett M.H., François-Carcaillet F., Gaudet J.-P., Lafont M., Gibert J., 2009. Ecosystem engineering at the sediment-water interface: bioturbation and consumer-substrate interaction. Oecologia 161: 125-138.

[30] Bouchet V.M.P., Sauriau P.-G., Debenay J.-P., Mermillod-Blondin F., Schmidt S., Amiard J.-C., Dupas B., 2009. Influence of the mode of macrofauna-mediated bioturbation on the vertical distribution of living benthic foraminifera: first insight from axial tomodensitometry. Journal of Experimental Marine Biology and Ecology 371: 20-33.

[29] Michaud E., Desrosiers G., Aller R.C., Mermillod-Blondin F., Sundby B., Stora G., 2009. Spatial interactions in the *Macoma balthica* community control biogeochemical fluxes at the sediment-water interface and microbial abundances. Journal of Marine Research 67 (1): 43-70.

[28] Gagnoud M., Lajeunesse P., Desrosiers G., Long B., Dufour S., Labrie J., Mermillod-Blondin F., Stora G., 2009. Litho- and bio-facies analysis of postglacial marine mud using CT-Scanning. Engineering Geology 103: 106-111.

2008

[27] Mermillod-Blondin F., Lemoine D., Boisson J.C., Malet E., Montuelle B., 2008. Relative influences of submersed macrophytes and bioturbating fauna on biogeochemical processes and microbial activities in freshwater sediments. Freshwater Biology 53: 1969-1982.

[26] Mermillod-Blondin F., Poggiale J.-C., Tolla C., Auger P., Thuiller W., Creuzé des Châtelliers M., 2008. Using a mathematical model to simulate the influence of tubificid worms (Oligochaeta) on oxygen concentrations in hyporheic sediments. Fundamental and Applied Limnology (Archiv für Hydrobiologie) 172(2): 135-145.

[25] Mermillod-Blondin F., Nogaro G., Vallier F., Gibert J., 2008. Laboratory study highlights the key influences of stormwater sediment thickness and bioturbation by tubificid worms on dynamics of nutrients and pollutants in stormwater retention systems. *Chemosphere* 72: 213-223.

[24] Nogaro G., Mermillod-Blondin F., Montuelle B., Boisson J.-C., Gibert J., 2008. Chironomid larvae stimulate biogeochemical and microbial processes in riverbed covered with fine sediment. *Aquatic Sciences* 70: 156-168.

[23] Nogaro G., Charles F., Braga de Mendonça Jr J., Mermillod-Blondin F., Stora G., Carcaillet F., 2008. Food supply impacts sediment reworking by *Nereis diversicolor*. *Hydrobiologia* 598: 403-408.

2007

[22] Nogaro G., Mermillod-Blondin F., Montuelle B., Boisson J-C., Lafont M., Volat B., Gibert J., 2007. Do tubificid worms influence organic matter processing and fate of pollutants in stormwater sediments deposited at the surface of infiltration systems? *Chemosphere* 70: 315-328.

[21] Nogaro G., Mermillod-Blondin F., Montuelle B., Boisson J-C., Bedell J-P., Ohannessian A., Volat B., Gibert J., 2007. Influence of a stormwater sediment deposit on microbial and biogeochemical processes in infiltration porous media. *The Science of the Total Environment* 377: 334-348.

2006

[20] Nogaro G., Mermillod-Blondin F., François-Carcaillet F., Gaudet J.P., Lafont M., Gibert J., 2006. Invertebrate bioturbation can reduce the clogging of sediment: an experimental study using filtration sediment columns. *Freshwater Biology* 51: 1458-1473.

[19] Michaud E., Desrosiers G., Mermillod-Blondin F., Sundby B., Stora G., 2006. The functional group approach to bioturbation: II. The effects of the *Macoma balthica* community on fluxes of nutrients and dissolved organic carbon across the sediment-water interface. *Journal of Experimental Marine Biology and Ecology* 337: 178-189.

[18] Mermillod-Blondin F., Rosenberg R., 2006. Ecosystem engineering: the impact of bioturbation on biogeochemical processes in marine and freshwater benthic habitats. *Aquatic Sciences* 68 (4): 434-442.

[17] Mauclaire L., Schürmann A., F. Mermillod-Blondin, 2006. Influence of hydraulic conductivity on the communities of microorganisms and invertebrates in porous media: a case study in drinking water slow sand filters. *Aquatic Sciences* 68: 100-108.

2005

[16] Michaud E., Desrosiers G., Mermillod-Blondin F., Sundby B., G. Stora, 2005. The functional group approach to bioturbation: the effects of bio-diffusers and gallery-diffusers of the *Macoma balthica* community on sediment oxygen uptake. *Journal of Experimental Marine Biology and Ecology* 326: 77-88.

[15] Mermillod-Blondin F., Mauclaire L., B. Montuelle, 2005. Use of slow filtration columns to assess oxygen respiration, consumption of dissolved organic carbon, nitrogen transformations, and microbial parameters in hyporheic sediments. *Water Research* 39: 1687-1698.

[14] Mermillod-Blondin F., Nogaro G., Datry T., Malard F., J. Gibert, 2005. Do tubificid worms influence the fate of organic matter and pollutants in stormwater sediments? *Environmental Pollution* 134: 57-69.

[13] Mermillod-Blondin F., François-Carcaillet F., R. Rosenberg, 2005. Biodiversity of benthic invertebrates and organic matter processing in shallow marine sediments: an experimental study. *Journal of Experimental Marine Biology and Ecology* 315: 187-209.

2004

[12] Mermillod-Blondin F., Gerino M., Sauvage S., M. Creuzé des Châtelliers, 2004. Influence of nontrophic interactions between benthic invertebrates on river sediment processes: a microcosm study. *Canadian Journal of Fisheries and Aquatic Sciences* 61: 1817-1831.

[11] Mermillod-Blondin F., Rosenberg R., François-Carcaillet F., Norling K., L. Mauclaire, 2004. Influence of bioturbation by three benthic infaunal species on microbial communities and biogeochemical processes in marine sediment. *Aquatic Microbial Ecology* 36: 271-284.

[10] Mermillod-Blondin F., Gaudet J.-P., Gerino M., Desrosiers G., Jose J., M. Creuzé des Châtelliers, 2004. Relative influence of bioturbation and predation on organic matter processing in river sediments: a microcosm experiment. *Freshwater Biology* 49: 895-912.

2003

[9] Gerino M., Stora G., François-Carcaillet F., Gilbert F., Poggiale J.-C., Mermillod-Blondin F., Desrosiers G., P. Vervier, 2003. Macro-invertebrate functional groups in freshwater and marine sediments: a common mechanistic classification. *Vie Milieu* 53 (4): 221-232.

[8] Mermillod-Blondin F., Creuzé des Châtelliers M., M. Gerino, 2003. Effects of the interaction between tubificid worms on functioning in hyporheic sediments: an experimental study in sediment columns. *Archiv für Hydrobiologie* 156: 203-223.

[7] Mermillod-Blondin F., Gaudet J.-P., Gerino M., Desrosiers G., M. Creuzé des Châtelliers,

2003. Influence of macroinvertebrates on physico-chemical and microbial processes in hyporheic sediments. *Hydrological Processes* 17: 779–794.

[6] Mermilliod-Blondin F., Marie S., Desrosiers G., Long B., de Montety L., G. Stora, 2003. Assessment of the spatial variability of intertidal benthic communities by axial tomodensitometry: importance of fine-scale heterogeneity. *Journal of Experimental Marine Biology and Ecology* 287: 193-208.

2002

[5] Mermilliod-Blondin F., Gerino M., Creuzé des Châtelliers M., V. Degrange, 2002. Functional diversity among three detritivorous hyporheic invertebrates: an experimental study in microcosms. *Journal of the North American Benthological Society* 21: 132-149.

2001

[4] Mermilliod-Blondin F., Gerino M., Degrange V., Lensi R., Chassé J.-L., Rard M., M. Creuzé des Châtelliers, 2001. Testing the functional redundancy of *Limnodrilus* and *Tubifex* in hyporheic sediments: an experimental study in microcosms. *Canadian Journal of Fisheries and Aquatic Sciences* 58: 1747-1759.

[3] Mermilliod-Blondin F., Fauvet G., Chalamet A., M. Creuzé des Châtelliers, 2001. A comparison of two ultrasonic methods for detaching biofilms from natural substrata. *International Review of Hydrobiology* 86: 349-360.

2000

[2] Mermilliod-Blondin F., Creuzé des Châtelliers M., Gerino M., J.-P. Gaudet, 2000. Testing the effect of *Limnodrilus* sp. (Oligochaeta, Tubificidae) on organic matter and nutrient processing in the hyporheic zone: a microcosm method. *Archiv für Hydrobiologie* 149: 467-487.

[1] Mermilliod-Blondin F., Creuzé des Châtelliers M., Marmonier P., M.-J. Dôle-Olivier, 2000. Distribution of solutes, microbes and invertebrates in river sediments along a riffle-pool-riffle sequence. *Freshwater Biology* 44: 255-270.