

Utilisation des mésocosmes en écologie

- Ahn C. & Mitsch W.J., 1997. Scaling considerations of mesocosm wetlands in simulating full-scale wetlands. In : Mitsch W. J. & Bouchard V. (Ed.), *Olentangy River Wetland Research Park at The Ohio State University, Annual Report 1998*. The Ohio State University, Columbus, Ohio: 177-190.
- Belanger S.E., 1997. Literature review and analysis of biological complexity in model stream ecosystems: influence of size and experimental design. *Ecotoxicol. Environ. Saf.*, **36**: 1-16.
- Bell T., Neill W.E. & Schluter D., 2003. The effect of temporal scale on the outcome of trophic cascade experiments. *Oecologia*, **134**: 578-586.
- Benton T.G., Solan M., Travis J.M.J. & Sait S.M., 2007. Microcosm experiments can inform global ecological problems. *TREE*, **22**: 516-521.
- Bergström U. & Englund G., 2002. Estimating predation rates in experimental systems: scale-dependent effects of aggregative behaviour. *Oikos*, **97**: 251-259.
- Bertolo A., Lacroix G. & Lescher-Moutoué F., 1999a. Scaling food chains in aquatic mesocosms: do the effects of depth override the effects of planktivory? *Oecologia*, **121**: 55-65.
- Bertolo A., Lacroix G., Lescher-Moutoué F. & Cardinal-Legrand C., 2000. Plankton dynamics in planktivore- and piscivore-dominated mesocosms. *Arch. Hydrobiol.*, **147**: 327-349.
- Bertolo A., Lacroix G., Lescher-Moutoué F. & Hjelm J., 2010. Relationship between fish and the number of horns in *Ceratium hirundinella*: a food-web mediated effects on algal morphology? *J. Phycol.*, **46**: 33-40.
- Bertolo A., Lacroix G., Lescher-Moutoué F. & Sala S., 1999b. Effects of physical refuges on fish-plankton interactions. *Freshwat. Biol.*, **41**: 795-808.
- Blöesch J., Bossard P., Bührer H., Burgi H.R. & Uehlinger U., 1988. Can results from limnocorral experiments be transferred to in situ conditions? *Bio-manipulation in limnocorrals - VI. Hydrobiologia*, **159**: 297-308.
- Borcic D., Lacroix G. & Lescher-Moutoué F., 1998. Body size and reproductive investment of *Daphnia galeata* under predation by cyprinid fishes: a mesocosm study. *Arch. Hydrobiol.*, **143**: 211-226.
- Brett M.T. & Goldman C.R., 1996. A meta-analysis of the freshwater trophic cascade. *Proc. Natl. Acad. Sci. USA*, **93**: 7723-7726.
- Brett M.T. & Goldman C.R., 1997. Consumer versus resource control in freshwater pelagic food webs. *Science*, **275**: 384-386.
- Caquet T., Deydier-Stephan L., Lacroix G. & Lescher-Moutoué F., 2005. Effects of fomesafen, alone and in combination with an adjuvant, on plankton communities in freshwater outdoor pond mesocosms. *Environ. Toxicol. Chem.*, **24**: 1116-1124.
- Caquet T., Lagadic L., Jonot O., Baturo W., Kilanda M., Simon P., Le Bras S., Echaubard M. & Ramade M., 1996. Outdoor experimental ponds (mesocosms) designed for long-term ecotoxicological studies in aquatic environment. *Ecotoxicol. Environ. Saf.*, **34**: 125-133.

Pour en savoir plus

- Caquet T., Lagadic L., Monod G., Lacaze J.-C. & Couté A., 2001. Variability of physico-chemical and biological parameters between replicated outdoor freshwater lentic mesocosms. *Ecotoxicology*, **10**: 51-66.
- Carpenter S.R., 1989. Replication and treatment strength. *Ecology*, **70**: 453-463.
- Carpenter S.R., 1996. Microcosm experiments have limited relevance for community and ecosystem ecology. *Ecology*, **77**: 677-680.
- Carpenter S.R., 1999. Microcosm experiments have limited relevance for community and ecosystem ecology: Reply. *Ecology*, **80**: 1085-1088.
- Carpenter S.R., 2003. Regime Shifts in Lake Ecosystems: Pattern and Variation. In : Kinne O. (Ed), Excellence in Ecology, Book 15. International Ecology Institute, Oldendorf/Luhe: 199 p.
- Carpenter S.R., Cole J.J., Essington T.E., Hodgson J.R., Houser J.N., Kitchell J.F. & Pace M.L., 1998. Evaluating alternative explanations in ecosystem experiments. *Ecosystems*, **1**: 335-344.
- Carpenter S.R. & Kitchell J.F., 1992. Trophic cascades and biomanipulations – Interface of research and management – A reply to the comment by DeMelo *et al.* *Limnol. Oceanogr.*, **37**: 208-213.
- Carpenter S.R. & Kitchell J.F. (Eds). 1993. *The Trophic Cascade in Lakes*. Cambridge University Press, Cambridge, UK: 385 p.
- Carpenter S.R., Kitchell J.F. & Hodgson J.R., 1985. Cascading trophic interaction and lake productivity. *BioScience*, **35**: 634-639.
- Chen C.C., Petersen J.E. & Kemp W.M., 1997. Spatial and temporal scaling of periphyton growth on walls of estuarine mesocosms. *Mar. Ecol. Prog. Ser.*, **155**: 1-15.
- Cottenie K. & De Meester L., 2003. Comment to Oksanen (2001): reconciling Oksanen (2001) and Hurlbert (1984). *Oikos*, **100**: 394-396.
- Crowder L.B., Drenner R.W., Kerfoot W.C., McQueen D.J., Mills E.L., Sommer U., Spencer C.N. & Vanni M.J., 1988. Food web interactions in lakes. In : Carpenter S.R. (Ed), *Complex Interactions in Lake Communities*. Springer-Verlag, New York: 283 p.
- Danger M., Daufresne T., Lucas F., Pissard S. & Lacroix G., 2008. Does Liebig's law of the minimum scale up from species to communities? *Oikos*, **117**: 1741-1751.
- Danger M., Lacroix G., Kâ S., Ndur E.H., Corbin D. & Lazzaro X., 2009. Food-web structure and functioning of temperate and tropical lakes: a stoichiometric viewpoint. *Ann. Limnol.-Int. J. Limnol.*, **45**: 1-11.
- Danger M., Lacroix G., Oumarou C., Benest D. & Mériquet J., 2008. Effects of food-web structure on periphyton stoichiometry in eutrophic lakes: A long-term mesocosm study. *Freshwat. Biol.*, **53**: 2089-2100.

- Danger M., Leflaive J., Oumarou C., Ten-Hage L. & Lacroix G., 2007. Control of phytoplankton-bacteria interactions by stoichiometric constraints. *Oikos*, **116**: 1079-1086.
- Danger M., Mériguet J., Oumarou C., Benest D. & Lacroix G., 2009. Direct and indirect effects of biomanipulations on periphyton stoichiometry in shallow lakes. *Verh. Internat. Verein. Limnol.*, **30**: 737-740.
- Danger M., Oumarou C., Benest D. & Lacroix G., 2007. Bacteria can control stoichiometry and nutrient limitation of phytoplankton. *Funct. Ecol.*, **21**: 202-210.
- Daufresne T., Lacroix G., Benhaim D. & Loreau M., 2008. Coexistence of algae and bacteria: a test of the carbon hypothesis. *Aquat. Microb. Ecol.*, **53**: 323-332.
- DeMelo R., France R. & McQueen D.J., 1992. Biomanipulation: Hit or myth? *Limnol. Oceanogr.* **37**: 192-207.
- Drenner R.W., Gallo K.L., Baca R.M. & Smith J.D., 1998. Synergistic effects of nutrient loading and omnivorous fish on phytoplankton biomass. *Can. J. Fish. Aquat. Sci.*, **55**: 2087-2096.
- Drenner R.W. & Mazumder A., 1999. Microcosm experiments have limited relevance for community and ecosystem ecology: Comment. *Ecology*, **80**: 1081-1085.
- Drenner R.W., Smith J.D. & Threlkeld S.T., 1996. Lake trophic state and the limnological effects of omnivorous fish. *Hydrobiologia*, **319**: 213-223.
- Eberhardt L.L. & Thomas J.M., 1991. Designing Environmental Field Studies. *Ecol. Monogr.*, **61**: 53-73.
- Hamlaoui S., Couté A., Lacroix G. & Lescher-Moutoué F., 1998. Nutrient and fish effects on the morphology of the dinoflagellate *Ceratium hirundinella*. *C. R. Acad. Sci. Paris, Life Sciences*, **321**: 39-45.
- Hamlaoui-Rézig S., 2001. *Rôle des nutriments et des poissons dans la structure du peuplement phytoplanktonique d'un écosystème lacustre peu profond : étude expérimentale en mésocosmes*. Thèse de Doctorat du Muséum National d'Histoire Naturelle, Discipline Algologie.
- Heimbach F., 1994. Methodologies of aquatic field tests: system design for field tests in still waters. In : Hill I.R., Heimbach F., Leeuwangh P. & Matthiessen P. (Eds), *Freshwater field tests for hazard assessment of chemicals*. Lewis Publishers, Michigan: 141-150.
- Hulot F.D., Lacroix G., Lescher-Moutoué F. & Loreau M., 2000. Functional diversity governs ecosystem response to nutrient enrichment. *Nature*, **405**: 340-344.
- Hurlbert S.H., 2004. On misinterpretations of pseudoreplication and related matters: a reply to Oksanen. *Oikos*, **194**: 591-597.
- Huston M.A., 1999. Microcosm experiments have limited relevance for community and ecosystem ecology: Synthesis of comments. *Ecology*, **80**: 1088-1089.
- Jeppesen E., Meerhoff M., Jacobsen B.A., Hansen R.S., Søndergaard M., Jensen J.P., Lauridsen T.N., Mazzeo N. & Branco C.W.C., 2007. Restoration of shallow lakes by nutrient control and biomanipulation – The successful strategy varies with lake size and climate. *Hydrobiologia*, **581**: 269-285.
- Kitchell J.F. & Carpenter S.R., 1988. Food-web manipulation in experimental lakes. *Verh. Internat. Verein. Limnol.*, **23**: 351-358.
- Lack T.J. & Lund J.G.W., 1974. Observations and experiments on the phytoplankton of Blelham Tarn, English Lake District. I. The experimental tubes. *Freshwat. Biol.*, **4**: 399-415.
- Lacroix G. & Danger M., 2008. Des réseaux trophiques au fonctionnement des écosystèmes lacustres : vers une intégration de l'hétérogénéité et de la complexité. *Rev. Sci. Eau*, **21**: 155-172.

- Lacroix G. & Lescher-Moutoué F., 1991. Interaction effects of nutrient loading and density of young- of-the-year cyprinids on eutrophication in a shallow lake: an experimental mesocosm study. *Mem. Ist. Ital. Idrobiol.*, **48**: 53-73.
- Lacroix G., Lescher-Moutoué F. & Pourriot R., 1996. Trophic interactions, nutrient supply, and structure of freshwater pelagic food webs. In : Hochberg M., Clobert J. & Barbault R. (Eds), *Aspects in the genesis and maintenance of biological diversity*. Oxford University Press: 162-179.
- Larocque I., Mazumder A., Proulx M., Lean D.R.S. & Pick F.R., 1996. Sedimentation of algae: Relationships with biomass and size distribution. *Can. J. Fish. Aquat. Sci.* **53**: 1133-1142.
- Lazzaro X., Lacroix G., Gauzens B., Gignoux J. & Legendre S., 2009. Predator foraging behaviour drives food-web topological structure. *J. Anim. Ecol.* **78**: 1307-1317.
- Likens G.E., 1985. An experimental approach for the study of ecosystems. *J. Ecol.*, **73**: 381-396.
- Likens G.E., 1992. The Ecosystem Approach: its Use and Abuse. In : Kinne O. (Ed), *Excellence in Ecology*, Book 3. Publisher: Ecology Institute, Oldendorf/Luhe, Germany: 166 p.
- Marty J., Pinel-Alloul B. & Carrias J.-F., 2002. Effets de la prédation et des nutriments sur les réseaux microbiens planctoniques. *Rev. Sci. Eau*, **15**: 37-49.
- Mazumder A., Taylor W.D., McQueen D.J. & Lean D.R.S., 1989. Effects of nutrients and grazers on periphyton phosphorus in lake enclosures. *Freshwat. Biol.*, **22**: 405-415.
- Odum E.P., 1984. The mesocosm. *BioScience*, **34**: 558-562.
- Oksanen L., 2001. Logic of experiments in ecology: is pseudoreplication a pseudoissue? *Oikos*, **94**: 27-38.
- Oksanen L., 2004. The devil lies in details: reply to Stuart Hurlbert. *Oikos*, **104**: 598-605.
- Perin S., Pick F.R., Lean D.R.S. & Mazumder A., 1996. Effects of planktivorous fish and nutrient additions on primary production of shallow versus deep (stratified) lake enclosures. *Can. J. Fish. Aquat. Sci.*, **53**: 1125-1132.
- Pinel-Alloul B., Mazumder A., Lacroix G. & Lazzaro X., 1998. Les réseaux trophiques lacustres: structure, fonctionnement, interactions et variations spatio-temporelles. *Rev. Sci. Eau*, **11**: 163-197.
- Post J.R. & McQueen D.J., 1987. The impact of planktivorous fish on the structure of a plankton community. *Freshwat. Biol.*, **17**: 79-89.
- Sarnelle O., 1997. *Daphnia* effects on microzooplankton: Comparisons of enclosure and whole-lake responses. *Ecology*, **78**: 913-928.
- Schindler D.W., 1998. Replication versus realism: The need for ecosystem-scale experiments. *Ecosystems*, **1**: 323-334.
- Shurin J.B., Borer E.T., Seabloom E.W., Anderson K., Blanchette B.B., Cooper S.D. & Halpern B.S., 2002. A cross-ecosystem comparison of the strength of trophic cascades. *Ecol. Lett.*, **5**: 1-7.
- Søndergaard M., Jeppesen E., Lauridsen T.L., Skov C., van Nes E.H., Roijackers R., Lammens E. & Portielje R., 2007. Lake restoration: successes, failures and long-term effects. *J. Applied Ecol.*, **44**: 1095-1105.
- Stephenson G.L., Hamilton P., Kaushik N.K., Robinson J.B. & Solomon K.R., 1984. Spatial distribution of plankton in enclosures of 3 sizes. *Can. J. Fish. Aquat. Sci.*, **41**: 1048-1054.
- Verschoor A.M., Takken J., Massieux B. & Vijverberg J., 2003. The Limnotrons: a facility for experimental community and food web research. *Hydrobiologia*, **491**: 357-377.

Utilisation des mésocosmes en écotoxicologie

- Arts G.H.P., Buijse-Bogdan L.L., Belgers J.D.M., van Rhenen-Kersten C.H., van Wijngaarden R.P.A., Roessink I., Maund S.J., van den Brink P.J. & Brock T.C.M., 2006. Ecological impact in ditch mesocosms of simulated spray drift from a crop protection program for potatoes. *IEAM*, **2**: 105-125.
- Campbell P.J., Arnold D.J.S., Brock T.C.M., Grandy N.J., Heger W., Heimbach F., Maund S.J. & Strelke M. (Eds), 1999. *Guidance Document on Higher-tier Aquatic Risk Assessment for Pesticides (HARAP)*. SETAC-Europe Publications, Bruxelles.
- Caquet T., Lagadic L. & Sheffield S.R., 2000. Mesocosms in ecotoxicology (1). Outdoor aquatic systems. *Rev. Environ. Contam. Toxicol.*, **165**: 1-38.
- Caquet T., Hanson M.L., Roucaute M., Graham D.W. & Lagadic L., 2007. Influence of isolation on the recovery of pond mesocosms from the application of an insecticide. II. Benthic macroinvertebrate responses. *Environ. Toxicol. Chem.*, **26**: 1280-1290.
- Coffinet S., Cossu-Leguille C., Basseres A., Gonnet J.F. & Vasseur P., 2008. Response of the bivalve *Unio tumidus* and freshwater communities in artificial streams for hazard assessment of methyl methacrylate. *Environ. Toxicol. Chem.*, **27**: 1371-1382.
- Distel C.A. & Boone M.D., 2009. Effects of aquatic exposure to the insecticide carbaryl and density on aquatic and terrestrial growth and survival in American toads. *Environ. Toxicol. Chem.*, **28**: 1963-1969.
- Dueri S., Dahllof I., Hjorth M., Marinov D. & Zaldivar J.M., 2009. Modeling the combined effect of nutrients and pyrene on the plankton population: Validation using mesocosm experiment data and scenario analysis. *Ecol. Model.*, **220**: 2060-2067.
- Fulton B.A., Brain R.A., Usenko S., Back J.A., King R.S. & Brooks B.W., 2009. Influence of nitrogen and phosphorus concentrations and ratios on *Lemna gibba* growth responses to triclosan in laboratory and stream mesocosms experiments. *Environ. Toxicol. Chem.*, **28**(12): 2610-2621.
- Fux E., Marcaillou C., Mondeguer F., Bire R. & Hess P., 2008. Field and mesocosm trials on passive sampling for the study of adsorption and desorption behaviour of lipophilic toxins with a focus on OA and DTX1. *Harmful Algae*, **7**: 574-583.
- Geurts J.J.M., Sarneel J.M., Willers B.J.C., Roelofs J.G.M., Verhoeven J.T.A. & Lamers L.P.M., 2009. Interacting effects of sulphate pollution, sulphide toxicity and eutrophication on vegetation development in fens: A mesocosm experiment. *Environ. Pollut.*, **157**: 2072-2081.
- Giddings J.M., Brock T.C.M., Heger W., Heimbach F., Maund S.J., Norman S.M., Ratte H.T., Schäfers C. & Strelke M. (Eds), 2002. *Community-Level Aquatic System Studies – Interpretation Criteria (CLASSIC)*. SETAC Europe, Brussels, Belgium.
- Graney R.L., Kennedy J.H. & Rodgers J.H. Jr. (Eds), 1994. *Aquatic Mesocosm Studies in Ecological Risk Assessment*. Lewis Publishers, Boca Raton.
- Gregoire C., Elsaesser D., Huguenot D., Lange J., Lebeau T., Merli A., Mose R., Passeport E., Payraudeau S., Schutz T., Schulz R., Tapia-Padilla G., Tournebize J., Trevisan M. & Wanko A., 2009. Mitigation of agricultural nonpoint-source pesticide pollution in artificial wetland ecosystems. *Environ. Chem. Lett.*, **7**: 205-231.
- Grice G.D. & Reeve M.R. (Eds), 1982. *Marine Mesocosms: Biological and Chemical Research in Experimental Ecosystems*. Springer-Verlag, New York.
- Gwyther D., Batterham G.J., Waworuntu J., Gultom T.H., Prayogo W. & Susetiono K., 2009. Recolonisation of mine tailing by meiofauna in mesocosm and microcosm experiments. *Mar. Pollut. Bull.*, **58**(6): 841-50.

- Hanson M.L., Graham D.W., Babin E., Azam D., Coutellec M.-A., Knapp C.W., Lagadic L. & Caquet T., 2007. Influence of isolation on the recovery of pond mesocosms from the application of an insecticide. I. Study design and planktonic community responses. *Environ. Toxicol. Chem.*, **26**: 1265-1279.
- Hill I.R., Heimbach F., Leeuwangh P. & Matthiessen P. (Eds), 1994. *Freshwater Field Tests for Hazard Assessment of Chemicals*. Lewis Publishers, Boca Raton.
- Holmes S.B., Fick W.E., Kreutzweiser D.P., Ebling P.M., England L.S. & Trevors J.T., 2008. Persistence of naturally occurring and genetically modified *Choristoneura fumiferana* nucleopolyhedroviruses in outdoor aquatic microcosms. *Pest Mgmt Sci.*, **64**: 1015-1023.
- Knauert S., Dawo U., Hollender J., Hommen U. & Knauer K., 2009. Effects of photosystem II inhibitors and their mixture on freshwater phytoplankton succession in outdoor mesocosms. *Environ. Toxicol. Chem.*, **28**: 836-845.
- Moore M.T., Kroger R., Cooper C.M. & Smith S. Jr., 2009. Ability of four emergent macrophytes to remediate permethrin in mesocosm experiments. *Arch. Environ. Contam. Toxicol.*, **57**: 282-288.
- Nelieu S., Perreau F., Bonnemoy F., Ollitrault M., Azam D., Lagadic L., Bohatier J. & Einhorn J., 2009. Sunlight nitrate-induced photodegradation of chlorotoluron: evidence of the process in aquatic mesocosms. *Environ. Sci. Technol.*, **43**: 3148-3154.
- Odum E.P., 1984. The mesocosm. *Bioscience*, **34**: 558-562.
- Pablo F. & Hyne R.V., 2009. Endosulfan application to a stream mesocosm: studies on fate, uptake into passive samplers and caged toxicity test with the fish *M. ambigua*. *Arch. Environ. Contam. Toxicol.*, **56**: 525-535.
- Pestana J.L.T., Alexander A.C., Culp J.M., Baird D.J., Cessna A.J. & Soares A.M.V.M., 2009. Structural and functional responses of benthic invertebrates to imidacloprid in outdoor stream mesocosms. *Environ. Pollut.*, **157**: 2328-2334.
- Roessink I., Koelmans A.A. & Brock T.C.M., 2008. Interactions between nutrients and organic micro-pollutants in shallow freshwater model ecosystems. *Sci. Total Environ.*, **406**: 436-442.
- Roussel H., Chauvet E. & Bonzom J.-M., 2008. Alteration of leaf decomposition in copper-contaminated freshwater mesocosms. *Environ. Toxicol. Chem.*, **27**: 637-644.
- Sanderson H., Laird B., Pope L., Brain R., Wilson C., Johnson D., Bryning G., Peregrine A.S., Boxall A. & Solomon K., 2007. Assessment of the environmental fate and effects of ivermectin in aquatic mesocosms. *Aquat. Toxicol.*, **85**: 299-240.
- SETAC-Europe, 1992. *Guidance Document on Testing Procedures for Pesticides in Freshwater Mesocosms*. SETAC-Europe, Bruxelles.
- Sourisseau S., Bassères A., Perié F. & Caquet T., 2008. Calibration, validation and sensitivity analysis of an ecosystem model applied to artificial streams. *Water Res.*, **42**: 1167-1181.
- Touart L.W., 1988. Aquatic Mesocosm Test to Support Pesticide Registrations. Hazard Evaluation Division Technical Guidance Document. U.S. E.P.A., Washington, Rept. n° US-EPA/540/09-88-035.
- Yu D., Yi X., Ma Y., Yin B., Zhuo H., Li J. & Huang Y., 2009. Effect of administration mode of antibiotics on antibiotic resistance of *Enterococcus faecalis* in aquatic ecosystems. *Chemosphere*, **76**(7): 915-920.

Utilisation des mésocosmes pour la gestion des milieux aquatiques et l'analyse de risque

Agence de l'eau, 1998. *Les bryophytes aquatiques comme outil de surveillance de la contamination des eaux courantes par les micropolluants métalliques. Concept, méthodologie et interprétation des données. Étude inter-agences n°55.*

Alix A., Heimbach F., Liess M., Maltby L., Maund S. & Wogram J., 2007. *Aquatic Mesocosms in Pesticide Registration in Europe: Recent Experiences (AMPERE)*. SETAC-Europe Workshop, Leipzig, Germany, 24-25 April 2007. André B. & Lascombe C., 1987. Comparaison de deux traceurs de la pollution métallique des cours d'eau : les sédiments et les bryophytes. *Sciences de l'eau*, **6**: 225-247.

Beeby A., 2001. What do sentinels stand for? *Environ. Pollut.*, **112**: 285-298.

Boyle T.P. & Fairchild J.F., 1997. The role of mesocosm studies in ecological risk assessment. *Ecol. Appl.*, **7**: 1099-1102.

Bonnomet V. & Alvarez C., 2006. *Implementation of requirements on priority substances within the context of the Water Framework Directive. Methodology for setting EQS: identifying gaps and further developments*. Background document. Limoges, France.

Breitholtz M., Ruden C., Hansson S.O. & Bengtsson B.-E., 2006. Ten challenges for improved ecotoxicological testing in environmental risk assessment. *Ecotoxicol. Environ. Saf.*, **63**: 324-335.

Caquet T. & Lagadic L., 1998. Conséquences des altérations individuelles précoces sur la dynamique des populations et la structuration des communautés et écosystèmes. In : Lagadic L., Caquet T., Amiard J.-C. & Ramade F. (coord.), *Utilisation de Biomarqueurs pour la Surveillance de la Qualité de l'Environnement*. Tec & Doc Lavoisier, Paris, 265-298.

Carpenter S.R., Caraco N.F., Correll D.L., Howarth R.W., Sharpley A.N. & Smith V.H., 1998. Non-point pollution of surface waters with phosphorus and nitrogen. *Ecol. Appl.*, **8**: 559-568.

Claissé D., 2009. *Adoption de la surveillance chimique pour la DCE conformément à la directive fille 2008/105/CE*. Document de travail.

Crane M. & Babut M., 2007. Environmental Quality Standards for Water Framework Directive priority substances: challenges and opportunities. *IEAM*, **3**: 290-296.

Depledge M.H., 1993. The rational basis for the use of biomarkers as ecotoxicological tools. In: Fossi M.C. & Leonzio C. (Eds), *Nondestructive biomarkers in vertebrates*, Lewis Publisher, Boca Raton, USA.

European Commission, 2003. Technical guidance document on risk assessment: Part II. European Commission – Joint Research Centre, Institute for Health and Consumer Protection, European Chemicals Bureau (ECB).

European Environment Agency, 2005. *The European environment – State and outlook 2005*. Copenhagen.

Galloway T.S., Brown R.J., Browne M.A., Dissanayake A., Lowe D., Depledge M.H. & Jones M.B., 2004. A multibiomarker approach to environmental assessment. *Environ. Sci. Technol.*, **38**: 1723-1731.

Lagadic L., 1999. Biomarkers in Invertebrates. Evaluating the effects of chemicals on populations and communities from biochemical and physiological changes in individuals. In : Peakall D.B., Walker C.H. & Migula P. (eds.), *Biomarkers : A Pragmatic Basis for Remediation of Severe Pollution in Eastern Europe*. NATO Science Series 2. – Vol. 54. Kluwer academic publishers, Dordrecht, The Netherlands, 153-175.

- Lagadic L., Caquet T. & Amiard J.-C., 1997a. Biomarqueurs en écotoxicologie : principes et définitions. In : Lagadic L., Caquet T., Amiard J.-C. & Ramade F. (Eds.), *Biomarqueurs en Écotoxicologie : aspects fondamentaux*. Collection d'Écologie, Editions Masson, Paris, 1-9.
- Lagadic L., Caquet T., Amiard J.-C., 1997b. Intérêt d'une approche multiparamétrique pour le suivi de la qualité de l'environnement. In: Lagadic L., Caquet T., Amiard J.-C., Ramade F. (Eds.), *Biomarqueurs en Écotoxicologie : Aspects Fondamentaux*. Collection d'Écologie, Éditions Masson, Paris, 393-401.
- Lascombe C., Rivière J.-L., Pelte T. & Quiniou F., 2008. *Synthèse des travaux de la thématique « Écosystèmes aquatiques »*. Actes du colloque de restitution du Programme National d'Écotoxicologie (PNETOX), Lille, 13-14 octobre 2008.
- Lecourtois S., 2009. *Essai de mise en relation entre la contamination des micropolluants et la qualité écologique des cours d'eau*. Rapport de stage, Agence de l'eau Loire-Bretagne.
- Lepper P., 2005. *Manual on the methodological framework to derive environmental quality standards for priority substances in accordance with Article 16 of the Water Framework Directive (2000/60/EC)*. Fraunhofer-Institute of Molecular Biology and Applied Ecology, Schmallenberg, Germany.
- OECD, 2000. Guidance document on aquatic toxicity testing of difficult substances and mixtures. OECD Series on Testing and Assessment (No. 23), Paris, France.
- Pelte T., 2009. *Utilisation de l'écotoxicologie pour la gestion de l'eau et des milieux aquatiques. La démarche écotoxicologique pour la protection et l'évaluation de la qualité des milieux aquatiques, 5^e journée thématique de la ZABR*, Valence, 24 septembre 2009.
- Phillips D.J.H. & Rainbow P.S., 1993. *Biomonitoring of trace aquatic contaminants*. Elsevier, London.
- Sanchez W., 2008. *Synthèse bibliographique : Expériences étrangères sur l'utilisation des biomarqueurs pour la surveillance des milieux aquatiques*. Rapport d'étude, convention Onema-INERIS 2008.
- Sanchez W., Katsiadaki I., Piccini B., Ditché J.-M. & Porcher J.-M., 2008. Biomarker responses in wild three-spined stickleback (*Gasterosteus aculeatus* L.) as a useful tool for freshwater biomonitoring: A multiparametric approach. *Environ. Int.*, **34**: 490-498.
- Schäfer R.B., Caquet T., Siimes K., Mueller R., Lagadic L. & Liess M., 2007. Effects of pesticides on community structure and ecosystem functions in agricultural streams of three biogeographical regions in Europe. *Sci. Tot. Environ.*, **382**: 272-285.
- Schiavone S. & Coquery M., 2009. *Méthodes de référence existantes pour l'analyse des substances prioritaires dans les sédiments et les biotes*. Rapport d'étude, convention Onema-Cemagref 2009.
- Schwarzenbach R.P., Escher B.I., Fenner K., Hofstetter T.B., Johnson C.A., von Gunten U. & Wehrli B., 2006. The challenge of micropollutants in Aquatic Systems. *Science*, **313**: 1072-1077.
- Shaw J.L. & Kennedy J.H., 1996. The use of aquatic field mesocosm studies in risk assessment. *Environ. Toxicol. Chem.*, **15**: 605-607.
- Stroffek I.S., 2003. L'évaluation et le suivi de l'état des milieux aquatiques : principes, indicateurs et mise en œuvre. *TSM, Techniques Sciences Méthodes*, 1: 68-75.
- Tilghman A., Garric J. & Coquery M., 2009. *La mesure des contaminants dans le biote : avantages et inconvénients pour la surveillance chimique du milieu continental*. Rapport bibliographique réalisé dans le cadre du programme d'activité d'AQUAREF pour l'année 2008, dans le cadre de la convention de partenariat Onema-Cemagref 2008.
- US EPA, 1992. *Framework for Ecological Risk Assessment*. US Environmental Protection Agency, Risk Assessment Forum Report N. EPA/630/P-04/068B, Washington, DC, USA.