

## Les publications 2016 de la ZAS

- Benoit, M., Garnier J., Beaudoin N., Billen G. (2016) A participative network of organic and conventional crop farms in the Seine Basin (France) for evaluating nitrate leaching and yield performance. *Agricultural Systems* 148:105-113. DOI: 10.1016/j.agrosy.2016.07.005.
- Autret B., Mary B., Chenu C., Balabane M., Girardin C., Bertrand M., Grandea G., Beaudoin N. (2016) Alternative arable cropping systems: A key to increase soil organic carbon storage? Results from a 16 year field experiment. *Agriculture Ecosystems & Environment* 232, 150-164. DOI:10.1016/j.agee.2016.07.008.
- Ferchaud F., Vitte G., Machet J. M., Beaudoin N., Catterou M., Mary B. (2016) The fate of cumulative applications of N-15-labelled fertiliser in perennial and annual bioenergy crops. *Agriculture Ecosystems & Environment* 223, 76-86. DOI: 10.1016/j.agee.2016.02.030.
- Peyrard C., Mary B., Perrin P., Vericel G., Grehan E., Justes E., Leonard J. (2016) N<sub>2</sub>O emissions of low input cropping systems as affected by legume and cover crops use. *Agriculture Ecosystems & Environment* 224, 145-156. DOI: 10.1016/j.agee.2016.03.028.
- Souissi A., Souissi S., Hansen B.W. (2016) Physiological improvement in the copepod *Eurytemora affinis* through thermal and multigenerational selection. *Aquaculture Aquaculture Research*, 47, 2227-2242.
- Hette-Tronquart N., Belliard J., Tales E., Oberdorff T. (2016) Stable isotopes reveal food web modifications along the upstream-downstream gradient of a temperate stream. *Aquatic Sciences* 78 (2), 255-265. DOI: 10.1007/s00027-015-0421-8.
- Legrand E., Forget-Leray J., Duflot A., Olivier S., Thome J. P., Danger J. M., Boulange-Lecomte C. (2016) Transcriptome analysis of the copepod *Eurytemora affinis* upon exposure to endocrine disruptor pesticides: Focus on reproduction and development. *Aquatic Toxicology* 176, 64-75. DOI:10.1016/j.aquatox.2016.04.010.
- Michalec F. G., Holzner M., Souissi A., Stancheva S., Barras A., Boukherroub R., Souissi S. (2016) Lipid nanocapsules for behavioural testing in aquatic toxicology: Time-response of *Eurytemora affinis* to environmental concentrations of PAHs and PCB. *Aquatic Toxicology* 170, 310-322. DOI:10.1016/j.aquatox.2015.08.010.
- Robert A., Monsinjon T., Delbecque J. P., Olivier S., Poret A., Le Foll F., Durand F., Knigge T. (2016) Neuroendocrine disruption in the shore crab *Carcinus maenas*: Effects of serotonin and fluoxetine on chh- and mih-gene expression, glycaemia and ecdysteroid levels. *Aquatic Toxicology* 175, 192-204. DOI: 10.1016/j.aquatox.2016.03.025.
- Bourgeois C., Jayet P. A. (2016) Regulation of relationships between heterogeneous farmers and an aquifer accounting for lag effects. *Australian Journal of Agricultural and Resource Economics* 60 (1), 39-59. DOI: 10.1111/1467-8489.12102.
- Ferchaud F., Mary B. (2016) Drainage and nitrate leaching assessed during 7 years under perennial and annual bioenergy crops. *Bioenergy Research* 9 (2), 656-670. DOI: 10.1007/s12155-015-9710-2.
- Le Noe J., Billen G., Lassaletta L., Silvestre M., Garnier J. (2016) Importance of agricultural transport in the biogeochemical cycle of nitrogen in France: insight into territorial production specialization. *Cahiers Agricultures* 25. DOI: 10.1051/cagri/2016002.

Teil M. J., Moreau-Guigon E., Blanchard M., Alliot F., Gasperi J., Cladiere M., Mandin C., Moukhtar S., Chevreuil M. (2016) Endocrine disrupting compounds in gaseous and particulate outdoor air phases according to environmental factors. *Chemosphere* 146, 94-104.

DOI:10.1016/j.chemosphere.2015.12.015.

Sukhikh N., Souissi A., Souissi S., Winkler G., Castric V., Holl A. C., Alekseev V. (2016) Genetic and morphological heterogeneity among populations of *Eurytemora affinis* (Crustacea: Copepoda: Temoridae) in European waters. *Comptes Rendus Biologies* 339 (5-6), 197-206.

DOI:10.1016/j.crvi.2016.03.004.

Lesourd S., Lesueur P., Fisson C., Dauvin J. C. (2016) Sediment evolution in the mouth of the Seine estuary (France): A long-term monitoring during the last 150 years. *Comptes Rendus Geoscience* 348 (6), 442-450. DOI: 10.1016/j.crte.2015.08.001.

Marmin S., Lesueur P., Dauvin J. C., Samson S., Tournier P., Lavanne A. G., Dubrulle-Brunaud C., Thouroude C. (2016) An experimental study on dredge spoil of estuarine sediments in the bay of seine (France): A morphosedimentary assessment. *Continental Shelf Research* 116, 89-102. DOI: 10.1016/j.csr.2016.01.010.

Ben Cheikh Y., Travers M. A., Morga B., Godfrin Y., Rioult D., Le Foll F. (2016) First evidence for a *Vibrio* strain pathogenic to *Mytilus edulis* altering hemocyte immune capacities. *Developmental and Comparative Immunology* 57, 107-119. DOI: 10.1016/j.dci.2015.12.014.

Tecchio S., Chaalali A., Raoux A., Rius A. T., Lequesne J., Girardin V., Lassalle G., Cachera M., Riou P., Lobry J., Dauvin J. C., Niquil N. (2016) Evaluating ecosystem-level anthropogenic impacts in a stressed transitional environment: The case of the Seine estuary. *Ecological Indicators* 61, 833-845. DOI: 10.1016/j.ecolind.2015.10.036.

Bigot-Clivot A., Ladeiro M. P., Lepoutre A., Bastien F., Bonnard I., Dubey J. P., Villena I., Aubert D., Geffard O., François A., Geffard A. (2016) Bioaccumulation of *Toxoplasma* and *Cryptosporidium* by the freshwater crustacean *Gammarus fossarum*: Involvement in biomonitoring surveys and trophic transfer. *Ecotoxicology and Environmental Safety* 133, 188-194.

DOI:10.1016/j.ecoenv.2016.07.006.

Hadj R., Urien N., Uher E., Fechner L. C., Lebrun J. D. (2016) Contribution of aqueous and dietary uptakes to lead (Pb) bioaccumulation in *Gammarus pulex*: From multipathway modeling to in situ validation. *Ecotoxicology and Environmental Safety* 129, 257-263.

DOI:10.1016/j.ecoenv.2016.03.033.

Nguyen H. T. M., Billen G., Garnier J., Rochelle-Newall E., Ribolzi O., Servais P., Le Q. T. P. (2016) Modelling of faecal indicator bacteria (FIB) in the Red River basin (Vietnam). *Environmental Monitoring and Assessment* 188 (9). DOI: 10.1007/s10661-016-5528-4.

Ayrault S., Catinon M., Boudouma O., Bordier L., Agnello G., Reynaud S., Tissut M. (2016) Metal exposure in cows grazing pasture contaminated by iron industry: Insights from magnetic particles used as tracers. *Environmental Pollution* 212, 565-573. DOI: 10.1016/j.envpol.2016.03.006.

Lassaletta L., Billen G., Garnier J., Bouwman L., Velazquez E., Mueller N. D., Gerber J. S. (2016) Nitrogen use in the global food system: past trends and future trajectories of agronomic performance, pollution, trade, and dietary demand. *Environmental Research Letters* 11 (9).

DOI:10.1088/1748-9326/11/9/095007.

Garnier J., Anglade J., M Benoit., Billen G., Puech T., Ramarson A., Passy P., Silvestre M., Lassaletta L., Trommenschlager J. M., Schott C., Tallec G. (2016) Reconnecting crop and cattle farming to reduce nitrogen losses to river water of an intensive agricultural catchment (Seine basin, France): past, present and future. *Environmental Science & Policy* 63, 76-90.  
DOI:10.1016/j.envsci.2016.04.019.

Romero E., Le Gendre R., Garnier J., Billen G., Fisson C., Silvestre M., Riou P. (2016) Long-term water quality in the lower Seine: Lessons learned over 4 decades of monitoring. *Environmental Science & Policy* 58, 141-154. DOI: 10.1016/j.envsci.2016.01.016.

Braouezec C., Enriquez B., Blanchard M., Chevreuil M., Teil M. J. (2016) Cat serum contamination by phthalates, PCBs, and PBDEs versus food and indoor air. *Environmental Science and Pollution Research* 23 (10), 9574-9584. DOI: 10.1007/s11356-016-6063-0.

Bressy A., Carre C., Caupos E., de Gouvello B., Deroubaix J. F., Deutsch J. C., Mailler R., Marconi A., Neveu P., Paulic L., Pichon S., Rocher V., Severin I., Soyer M., Moilleron R. (2016) Cosmet'eau-Changes in the personal care product consumption practices: from whistle-blowers to impacts on aquatic environments. *Environmental Science and Pollution Research* 23 (13), 13581-13584.  
DOI:10.1007/s11356-016-6794-y.

Kaci A., Petit F., Fournier M., Cecillon S., Boust D., Lesueur P., Berthe T. (2016) Diversity of active microbial communities subjected to long-term exposure to chemical contaminants along a 40-year-old sediment core. *Environmental Science and Pollution Research* 23 (5), 4095-4110. DOI: 10.1007/s11356-015-4506-7.

Minguez L., Pedelucq, Farcy J. E., Ballandonne C., Budzinski H., Halm-Lemeille M. P. (2016) Toxicities of 48 pharmaceuticals and their freshwater and marine environmental assessment in northwestern France. *Environmental Science and Pollution Research* 23 (6), 4992-5001. DOI: 10.1007/s11356-014-3662-5.

Roose-Amsaleg, C., Laverman A. M. (2016) Do antibiotics have environmental side-effects? Impact of synthetic antibiotics on biogeochemical processes. *Environmental Science and Pollution Research* 23 (5), 4000-4012. DOI: 10.1007/s11356-015-4943-3.

Sage J., El Oreibi E., Saad M., Gromaire M. C. (2016) Modeling the temporal variability of zinc concentrations in zinc roof runoff-experimental study and uncertainty analysis. *Environmental Science and Pollution Research* 23 (16), 16552-16566. DOI: 10.1007/s11356-016-6827-6.

Boulange-Lecomte C., Rocher B., Cailleaud K., Cosette P., Legrand E., Devreker D., Budzinski H., Souissi S., Forget-Leray J. (2016) Differential protein expression in the estuarine copepod *Eurytemora affinis* after diuron and alkylphenol exposures. *Environmental Toxicology and Chemistry* 35 (7), 1860-1871. DOI: 10.1002/etc.3343.

Chambord S., Maris T., Colas F., Van Engeland T., Sossou A. C., Azemar F., Le Coz M., Cox T., Buisson L., Souissi S., Meire P., Tackx M. (2016) Mesozooplankton affinities in a recovering freshwater estuary. *Estuarine Coastal and Shelf Science* 177, 47-59.  
DOI:10.1016/j.ecss.2016.04.016.

Delebecq G., Davoult D., Janquin M. A., Oppiger L. V., Menu D., Dauvin J. C., Gevaert F. (2016) Photosynthetic response to light and temperature in *Laminaria digitata* gametophytes from two French populations. *European Journal of Phycology* 51 (1), 71-82.  
DOI:10.1080/09670262.2015.1104556.

Evariste L., Auffret M., Audonnet S., Geffard A., David E., Brousseau P., Fournier M., Betouille S. (2016) Functional features of hemocyte subpopulations of the invasive mollusk species *Dreissena polymorpha*. *Fish & Shellfish Immunology* 56, 144-154. DOI: 10.1016/j.fsi.2016.06.054.

Wang Y. G., Gelabert A., Michel F. M., Choi Y., Gescher J., Ona-Nguema G., Eng P. J., Bargar J. R., Farges F., Spormann A. M., Brown G. E. (2016) Effect of biofilm coatings at metal-oxide/water interfaces I: Pb(II) and Zn(II) partitioning and speciation at *Shewanella oneidensis*/metal-oxide/water interfaces. *Geochimica et Cosmochimica Acta* 188, 368-392. DOI:10.1016/j.gca.2016.04.052.

Kessouri P., Flageul S., Vitale Q., Buvat S., Rejiba F., Tabbagh A. (2016) Medium-frequency electromagnetic device to measure electric conductivity and dielectric permittivity of soils. *Geophysics* 81 (1), E1-E16. DOI: 10.1190/geo2014-0468.1.

Vilmin L., Flipo N., Escoffier N., Rocher V., Groleau A. (2016) Carbon fate in a large temperate human-impacted river system: Focus on benthic dynamics. *Global Biogeochemical Cycles* 30 (7), 1086-1104. DOI: 10.1002/2015gb005271.

Ferchaud F., Vitte G., Mary B. (2016) Changes in soil carbon stocks under perennial and annual bioenergy crops. *Global Change Biology Bioenergy* 8 (2), 290-306. DOI: 10.1111/gcbb.12249.

Duran L., Fournier M., Massei N., Dupont J. P. (2016) Assessing the nonlinearity of karst response function under variable boundary conditions. *Groundwater* 54 (1), 46-54. DOI:10.1111/gwat.12337.

Miguel C., Lamouroux N., Pella H., Labarthe B., Flipo N., Akopian M., Belliard J. (2016) Hydraulic habitat alteration at the catchment scale: impacts of groundwater abstraction in the Seine-Normandie catchment. *Houille Blanche-Revue Internationale De L'Eau* (3), 65-74. DOI: 10.1051/lhb/2016032.

Jaud M., Grasso F., Le Dantec, Verney N. R., Delacourt C., Ammann J., Deloffre J., Grandjean P. (2016) Potential of UAVs for Monitoring Mudflat Morphodynamics (Application to the Seine Estuary, France). *Isprs International Journal of Geo-Information* 5 (4). DOI: 10.3390/ijgi5040050.

Wezel A., Zipfer M., Aubry C., Barataud F., Heissenhuber A. (2016) Result-oriented approaches to the management of drinking water catchments in agricultural landscapes. *Journal of Environmental Planning and Management* 59 (2), 183-202. DOI: 10.1080/09640568.2014.1000453.

Pan Y. J., Souissi A., Souissi S., Hwang J. S. (2016) Effects of salinity on the reproductive performance of *Apocyclops royi* (Copepoda, Cyclopoida). *Journal of Experimental Marine Biology and Ecology* 475, 108-113. DOI: 10.1016/j.jembe.2015.11.011.

Le Pichon C., Tales E., Gorges G., Baudry J., Boet P. (2016) Using a continuous riverscape survey to examine the effects of the spatial structure of functional habitats on fish distribution. *Journal of Freshwater Ecology* 31 (1), 1-19. DOI: 10.1080/02705060.2015.1035345.

Baratelli F., Flipo N., Moatar F. (2016) Estimation of stream-aquifer exchanges at regional scale using a distributed model: Sensitivity to in-stream water level fluctuations, riverbed elevation and roughness. *Journal of Hydrology* 542:686-703. DOI: 10.1016/j.jhydrol.2016.09.041.

David V., Hartmann H., Barnett A., Breret M., Montanie H., Orvain F., Dupuy C. (2016) Impact of biofilm resuspension on mesozooplankton in a shallow coastal ecosystem characterized by a bare

intertidal mudflat. *Journal of the Marine Biological Association of the United Kingdom* 96 (6), 1319-1329. DOI: 10.1017/s0025315416000552.

Penel G., Pecout C., Machemehl C. (2016) Sports facilities as a strategic tool for structuring seaside resorts: The examples of Deauville, Dieppe, and Le Touquet Paris-Plage, *Loisir & Societe-Society and Leisure* 39 (2), 321-321. DOI: 10.1080/07053436.2016.1179026.

Roult R., Machemehl C. (2016) Territorial development and planning of sporting and leisure facilities Introduction. *Loisir & Societe-Society and Leisure* 39 (1):1-11. DOI:10.1080/07053436.2016.1151227.

Jauffrais T., Jesus B., Meleder V., Turpin V., Adpg Russo, Raimbault P., Jezequel V. M. (2016) Physiological and photophysiological responses of the benthic diatom *Entomoneis paludosa* (Bacillariophyceae) to dissolved inorganic and organic nitrogen in culture. *Marine Biology* 163 (5) 115. DOI : 10.1007/s00227-016-2888-9.

Passy P., Le Gendre R., Garnier J., Cugier P., Callens J. Paris, F., Billen G., Riou P., Romero E. (2016) Eutrophication modelling chain for improved management strategies to prevent algal blooms in the Bay of Seine. *Marine Ecology Progress Series* 543, 107-125. DOI: 10.3354/meps11533.

Evariste E., Claquin P., Robin J. P., Auber A., McQuatters-Gollop A., Dauvin J. C. (2016) The Channel ecosystem, a cross-roads of anthropogenic pressures and scientific studies: Lessons learned from the European INTERREG IV projects (2009-2015). *Marine Policy* 63, 158-165. DOI:10.1016/j.marpol.2015.10.012.

Berrick A., Châtel A., Marion J-M., Perrein-Ettajani H., Bruneau M., Mouneyrac C. (2016). A novel methodology for the determination of biomarker baseline levels in the marine polychaete *Hediste diversicolor*. *Mar. Pollut. Bull.* 108, 275-280.

Dris R., Gasperi J., Saad M., Mirande C., Tassin B. (2016) Synthetic fibers in atmospheric fallout: A source of microplastics in the environment? *Marine Pollution Bulletin* 104 (1-2), 290-293. DOI:10.1016/j.marpolbul.2016.01.006.

Lemesle S., Erraud A., Mussio I., Rusig A. M., Claquin P. (2016) Dynamics of delta N-15 isotopic signatures of different intertidal macroalgal species: Assessment of bioindicators of N sources in coastal areas. *Marine Pollution Bulletin* 110 (1), 470-483. DOI: 10.1016/j.marpolbul.2016.06.006.

Strugeon E., Tilloy V., Ploy M. C., Da Re S. (2016) The stringent response promotes antibiotic resistance dissemination by regulating integron integrase expression in biofilms. *Mbio* 7 (4). DOI:10.1128/mBio.00868-16.

Lassaletta L., Aguilera E., Sanz-Cobena A., Pardo G., Billen G., Garnier J., Grizzetti B. (2016) Leakage of nitrous oxide emissions within the Spanish agro-food system in 1961-2009. *Mitigation and Adaptation Strategies for Global Change* 21 (7), 975-994. DOI: 10.1007/s11027-014-9569-0.

Nemery J., Garnier J. (2016) Biogeochemistry The fate of phosphorus. *Nature Geoscience* 9 (5), 343-344. DOI: 10.1038/ngeo2702.

Doxaran D., Leymarie E., Nechad B., Dogliotti A., Ruddick K., Gernez P., Knaeps E. (2016) Improved correction methods for field measurements of particulate light backscattering in turbid waters. *Optics Express* 24 (4), 3615-3637. DOI: 10.1364/oe.24.003615.

Ibrahim A., Souissi A., Leray A., Heliot L., Vandenbunder B., Souissi S. (2016) Myofibril changes in the copepod *Pseudodiaptomus marinus* exposed to haline and thermal stresses. *Plos One* 11 (11). DOI: 10.1371/journal.pone.0164770.

Barles S., Guillerme A. (2016) The Parisian street in the XIX century : standardization and control ?" *Romantisme* (171), 15.

Le Gall M., Evrard O., Foucher A., Laceby J. P., Salvador-Blanes S., Thil F., Dapoigny A. Lefevre, I., Cerdan O., Ayrault S. (2016) Quantifying sediment sources in a lowland agricultural catchment pond using  $^{137}\text{Cs}$  activities and radiogenic  $^{87}\text{Sr}/^{86}\text{Sr}$  ratios. *Science of the Total Environment* 566, 968-980. DOI: 10.1016/j.scitotenv.2016.05.093.

Queyrel W., Habets F., Blanchoud H., Ripoche D., Launay M. (2016) Pesticide fate modeling in soils with the crop model STICS: Feasibility for assessment of agricultural practices. *Science of the Total Environment* 542, 787-802. DOI: 10.1016/j.scitotenv.2015.10.066.

Tedoldi D., Chebbo G., Pierlot D., Kovacs Y., Gromaire M. C. (2016) Impact of runoff infiltration on contaminant accumulation and transport in the soil/filter media of Sustainable Urban Drainage Systems: A literature review. *Science of the Total Environment* 569, 904-926. DOI:10.1016/j.scitotenv.2016.04.215.

Sirost, O. (2016) Foundations of French Sensorial Anthropology. *Senses & Society* 11 (3), 333-344. DOI: 10.1080/17458927.2016.1195114.

Laborie S., Moreau-Guigou E., Alliot F., Desportes A., Oziol L., Chevreuil M. (2016) A new analytical protocol for the determination of 62 endocrine-disrupting compounds in indoor air. *Talanta* 147, 132-141. DOI: 10.1016/j.talanta.2015.09.028.

Lardy-Fontan S., Brieudes V., Lalere B., Candido P., Couturier G., Budzinski H., Lavison-Bompard G. (2016) For more reliable measurements of pharmaceuticals in the environment: Overall measurement uncertainty estimation, QA/QC implementation and metrological considerations. A case study on the Seine River. *Trac-Trends in Analytical Chemistry* 77, 76-86. DOI:10.1016/j.trac.2015.12.011.

Pasquet S., Bodet L., Bergamo P., Guerin R., Martin R., Mourgues R., Tournat V. (2016) Small-Scale Seismic Monitoring of Varying Water Levels in Granular Media. *Vadose Zone Journal* 15 (7). DOI: 10.2136/vzj2015.11.0142.

Al Ali S., Bonhomme C., Chebbo G. (2016) Evaluation of the performance and the predictive capacity of build-up and wash-off models on different temporal scales. *Water* 8 (8). DOI:10.3390/w8080312.

Hong Y., Bonhomme C., Le M. H., Chebbo G. (2016) A new approach of monitoring and physically-based modelling to investigate urban wash-off process on a road catchment near Paris. *Water Research* 102, 96-108. DOI: 10.1016/j.watres.2016.06.027.

Petit C., Vincent A., Fleury P., Durpoix A., Barataud F. (2016) Protecting water from agricultural diffuse pollutions: between action territories and hydrogeological demarcation. *Water Resources Management* 30 (1), 295-313. DOI: 10.1007/s11269-015-1162-0.

Newcomer M. E., Hubbard S. S., Fleckenstein J. H., Maier U., Schmidt C., Thullner M., Ulrich C., Flipo N., Rubin Y. (2016) Simulating bioclogging effects on dynamic riverbed permeability and infiltration. *Water Resources Research* 52 (4), 2883-2900. DOI: 10.1002/2015wr018351.