

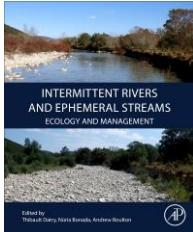
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Intermittent Rivers and Ephemeral Streams

Editors: Thibault Datry Núria Bonada Andrew Boulton

eBook ISBN:9780128039045/ Paperback ISBN:9780128038352



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Guest Editors : Harby A., Lamouroux N., Martinez-Capel F.

Special Issue Journal of Environmental Management: Large-scale river management: 2017

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Guest Editors : Thibault Datry, Ken Fritz & Catherine Leigh

Special Issue Freshwater Biology: River Restoration, 2015

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Guest Editors : Nicolas Lamouroux , James A. Gore, Fabio Lepori & Bernhard Statzner

Publication list

2020

- Acuña V., Jorda-Capdevila D. Vezza P., De Girolamo AM., McClain M., Stubbington R., Pastor A., Lamouroux N., von Schiller D., Munné A., Datry T. 2020. Accounting for flow intermittency in environmental flows design. *Journal of Applied Ecology*, in press.
- Beaufort, A., Moatar, F., Sauquet, E., Loicq, P., Hannah, D. (2020) Influence of landscape and hydrological factors on Stream-Air temperature relationships at regional scale. *Hydrological Processes*, 34(3), 583-597
- Cid N., Bonada N., Heino J., Cafredo-Argüelles M., Crabot J., Sarremejane R., Soininen J., Stubbington R., Datry T. 2020. A Metacommunity Approach to Improve Biological Assessments in Highly Dynamic Freshwater Ecosystems. *BioScience*. In press.
- Frei, R., Abbott, Benjamin W, Dupas, R., Gu, S., Gruau, G., Thomas, Z., Kolbe, T., Aquilina, L., Labasque, T., Laverman, A., Fovet, O., Moatar, F., Pinay, G. (2020) Predicting nutrient incontinence in the Anthropocene at watershed scales. *Frontiers in Environmental Science*, 7(200), 21 p.
- Jabot, F., Laroche, F., Massol, F., Arthaud, F., Crabot, J., Dubart, M., Blanchet, S., Munoz, F., David, P., and Datry, T. 2020. Assessing metacommunity processes through signatures in spatiotemporal turnover of community composition. *Ecology Letters*, in press.
- Keller, P., Catalán N., von Schiller D., Grossart H.-P , Koschorreck M., Obrador B., Frassl M.A., Karakaya N., Barros N., Howitt J.A., Mendoza-Lera C., Pastor A., Flaim G., Aben R., Riis T., Arce M. I., Onandia G., Paranaiba J., Linkhorst A., del Campo R., Amado A.M., Cauvy S., Brothers S., Condon J., Mendonça R., Reverey F., Rõõm E.-I, Datry T., Roland F., Laas A., Obertegger U., Park J.-H., Wang H., Kosten S.,

- Goméz R., Feijoó C., Elosegi A., Sanchez-Montoya M., Finlayson C. M., Melita M., Oliveira Junior E. S., Muniz C. C., Gómez-Gener L., Leigh C., Zhang Q., and Marcé R. Global CO₂ emissions from dry inland waters share common drivers across ecosystems. *Nature Communications*, in press.
- Kneib, M., Cauvy-Fraunié, S., Escoffier, N., Canadell, M.B., Horgby, Å. and Battin, T.J. (2020) Glacier retreat changes diurnal variation intensity and frequency of hydrologic variables in Alpine and Andean streams. *Journal of Hydrology*, p.124578
- Le Lay H., Thomas Z., Bour O., Rouault F., Pichelin P.,& Moatar F. (2020) Experimental and model-based investigation of the effect of the free-surface flow regime on the detection threshold of warm water inflows. *Water Resources Research*, doi:10.1029/2018WR023722
- Moatar, F., Flouzy, M., Gold, A., Meybeck, M., Renard, B., Ferreol, M., Chandesris, A., Minaudo, C., Addy, K., Piffady, J., Pinay, G. (2020) Stream solutes and particulates export regimes: A new framework to optimize their monitoring. *Frontiers in Ecology and Evolution*, 7, 19 p.
- Moret, P., Barragán, A., Moreno, E., Cauvy-Fraunié, S. and Gobbi, M. (2020) When the Ice Has Gone: Colonisation of Equatorial Glacier Forelands by Ground Beetles (Coleoptera: Carabidae). *Neotropical Entomology*. 1-14
- Roubeix, V., Minaudo, C., Prats, J., Reynaud, N., Zhang, Q., Moatar, F., & Danis, P. A. (2020) Adapting the dynamic LakeMab model to simulate seasonal variations of phosphorus concentration in reservoirs: a case study of Lake Bultière (France). *Limnology*, 1-12
- Shanafield, M., Godsey S., Datry T., Hale R., Zipper S.C., Costigan K., Krabbenhoft C.A., Dodds W.K., Zimmer M., Allen D.C., Bogan M., Kaiser K.E., Burrows R.M., Hammond J.C., Bush M., Kampf S., Mims, M.C., Burgin AM. Olden J. (2020) Science gets up to speed on dry rivers, *Eos*, 101, <https://doi.org/10.1029/2020EO139902>

2019

- Alric, B., Geffard, O., Chandesris, A., Ferreol, M., Francois, A., Perceval, O., Piffady, J., Villeneuve, B., Chaumot, A. (2019) Multi-substance indicators based on caged Gammarus bioaccumulation reveal the influence of chemical contamination on stream macroinvertebrate abundances across France. *Environmental Science & Technology*, 53(10), 5906-5915
- Arambourou, H., Vulliet, E., Daniele, G., Noury, P., Delorme, N., Abbaci, K., Forcellini, M., Tutundjian, R. & Barata, C. (2019) Comparison in the response of three European Gammarid species exposed to the growth regulator insecticide fenoxy carb. *Environmental Science and Pollution Research*, 1-7
- Arce, M.I., Mendoza Lera, C., Almagro, M., Catalan, N., Romani, A.M., Martí, E., Gomez, R., Bernal, S., Foulquier, A., Mutz, M., Marce, R., Zoppini, A., Gionchetta, G., Weigelhofer, G., Del Campo, R., Robinson, C.T., Gilmer, A., Rulik, M., Obrador, B., Shumilova, O., Zlatanovic, S., Arnon, S., Baldrian, P., Singer, G., Datry, T., Skoulikidis, N., Tietjen, B., Von Schiller, D. (2019) A conceptual framework for understanding the biogeochemistry of dry riverbeds through the lens of soil science. *Earth Science Reviews*, 188, 441-453
- Bergerot, B., Bret, V., Cattaneo, F. (2019) Similarity in seasonal flow regimes, not regional environmental classifications explain synchrony in brown trout population dynamics in France. *Freshwater Biology*, 64, 1226-1238
- Bretagnolle V., Benoit M., Bonnefond M., Breton V., Church J.M., Gaba S., Gilbert D., Gillet F., Glatron S., Guerbois C., Lamouroux N., Lebouvier M., Maze C., Mouchel J.M., Ouin A., Pays O., Piscart C., Ragueneau O., Servain S., Spiegelberger T., Fritz H. (2019) Action-orientated research and framework: insights from the French Long-Term Socio-Ecological Research network. *Ecology and Society*, 24, 10.
- Bruno, D., Belmar, O., Maire, A., Morel, A., Dumont, B., Datry, T. (2019) Structural and functional responses of invertebrate communities to climate change and flow regulation in alpine catchments. *Global Change Biology*, 25(5), 1612-1628
- Cauvy-Fraunié, S., Dangles, O. (2019.) A global synthesis of biodiversity responses to glacier retreat. *Nature Ecology & Evolution*, 3, 1675-1685
- Cauvy-Fraunié, S., Trenkel, V.M., Daufresne, M., Maire, A., Capra, H., Olivier, J.M., Lobry, J., Cazelles, B. and Lamouroux, N. (2019) Interpretation of interannual variability in long-term aquatic ecological surveys. *Canadian Journal of Fisheries and Aquatic Sciences*.
- Chandesris, A., Van Looy, K., Diamond, J.S., Souchon, Y. (2019) Small dams alter thermal regimes of downstream water. *Hydrology and Earth System Sciences*, (23), 4509-4525
- Chanut P.C., Datry T., Gabbud C., & Robinson C.T. (2019). Direct and indirect effects of flood regime on macroinvertebrate assemblages in a floodplain riverscape. *Ecohydrology*, e2095.

- Crabot, J., Clappe, S., Dray, S., Datry, T. (2019) Testing the Mantel statistic with a spatially-constrained permutation procedure. *Methods in Ecology and Evolution*, 10(4), 532-540
- Crabot, J., Heino, J., Launay, B., Datry, T. (2019) Drying determines the temporal dynamics of stream invertebrate structural and functional beta diversity. *Ecography*, 42, 1-16
- Damiani, M., Lamouroux, N., Pella, H., Roux, P., Loiseau, E., Rosenbaum, R. (2019). Spatialized freshwater ecosystem life cycle impact assessment of water consumption based on instream habitat change modeling. *Water Research*, 163, 12 p.
- Floury, M., Colombet, J., Desvillettes, C (2019) Interspecific competition between restocked 0+ salmon parr (*Salmo salar*) and native fish species in a large European river. *Ecology of Freshwater Fish*, 28(1), 69-84
- Frazar, S., Gold, A.J., Addy, K., Moatar, F., Birgand, F., Schroth, A., Kellogg, D., Pradhanang, S. (2019) Contrasting behavior of nitrate and phosphate flux from high flow events on small agricultural and urban watersheds . *Biogeochemistry*, 145(1-2), 141-160
- Gauthier M., Konecny-Dupré L., Nguyen A., Elbrecht V., Datry T., Douady C.J., Lefébure T. (2019) Enhancing DNA metabarcoding performance and applicability with bait capture enrichment and DNA from conservative ethanol. *Molecular Ecology Resources*. 20(1), 79-96
- Jabot, F., Laroche, F., Massol, F., Arthaud, F., Crabot, J., Dubart, M., ... & Datry, T. (2019) Assessing metacommunity processes through signatures in spatiotemporal turnover of community composition. *bioRxiv*, 480335.
- Kelleher, C., Ward, A., Knapp, J.L.A., Blaen, P.J., Kurz, M.J., Drummond, J.D., Zarnetske, J.P., Hannah, D.M., Mendoza Lera, C., Schmadel, N.M., Datry, T., Lewandowski, J., Milner, A.M., Krause, S. (2019) Exploring Tracer Information and Model Framework Trade?offs to Improve Estimation of Stream Transient Storage Processes. *Water Resources Research*, 55, 21 p.
- Le Lay, H., Thomas, Z., Rouault, F., Pichelin, P., Moatar, F. (2019) Characterization of Diffuse Groundwater Inflows into Streamwater (Part I: Spatial and Temporal Mapping Framework Based on Fiber Optic Distributed Temperature Sensing). *Water*, 11(11), p. 2389
- Le Lay, H., Thomas, Z., Rouault, F., Pichelin, P., Moatar, F. (2019) Characterization of Diffuse Groundwater Inflows into Stream Water (Part II: Quantifying Groundwater Inflows by Coupling FO-DTS and Vertical Flow Velocities). *Water*, 11(12), p. 2430
- Le Moal, M., Gascuel Odoux, C., Menesguen, A., Souchon, Y., Etrillard, C., Levain, A., Moatar, F., Pannard, A., Souchu, P., Lefebvre, A., Pinay, G. (2019) Eutrophication: a new wine in an old bottle?. *Science of the Total Environment*, 651, 1-11
- Mendoza Lera, C., Ribot, M., Foulquier, A., Marti, E., Bonnneau, C., Breil, P., Datry, T. (2019) Exploring the role of hydraulic conductivity on the contribution of the hyporheic zone to in-stream nitrogen uptake. *Ecohydrology*, 12(7), 12 p.
- Minaudo, C., Dupas, R., Gascuel Odoux, C., Roubeix, V., Danis, P.A., Moatar, F. (2019) Seasonal and event-based concentration-discharge relationships to identify catchment controls on nutrient export regimes. *Advances in Water Resources*, 131, 11 p.
- Morel, M., Booker, D. J., Gob, F., & Lamouroux, N. (2019) Intercontinental predictions of river hydraulic geometry from catchment physical characteristics. *Journal of Hydrology*, 124292. <https://doi.org/10.1016/j.jhydrol.2019.124292>
- Morel, M., Tamisier, V., Pella, H., Booker, D.J., Navratil, O., Piegay, H., Gob, F., Lamouroux, N. (2019) Revisiting the drivers of at-a-station hydraulic geometry in stream reaches. *Geomorphology*, 328, 44-56
- Paril P., Polasek M., Loskotova B., Straka M., Crabot J. and Datry T. (2019) An unexpected source of invertebrate community recovery in intermittent streams from a humid continental climate. *Freshwater Biology*, in press.
- Pesce, S., Bonnneau, C., Coquery, M., Dabrin, A., Degli-Esposti, D., Gouy, V., Masson, M., Mendoza-Lera, C., Neyra, M., Yari, A. (2019) Recommandations d'un collectif franco-suisse d'experts pour une meilleure évaluation de la qualité écotoxicologique des sédiments par l'étude des communautés benthiques. *Sciences Eaux et Territoires*, n° Hors Série 55, 1-9
- Reding, J. P. G., Launay, B., Le Doaré, J., Ruffoni, A., & Vinçon, G. (2019) Two new species of dictyogenus klapálek, 1904 (plecoptera: perlodidae) from the jura mountains of france and switzerland, and from the french vercors and chartreuse massifs. *Illiesia*, 15(2), 27-64
- Riquier, J., Piegay, H., Lamouroux, N., Vaudor, L. (2019) Relevance and sustainability of floodplain channel restoration: models based on a 15-years monitoring along the Rhône River. *Houille Blanche-Revue Internationale de l'eau*, 2, 101-108
- Shumilova, O., Zak, D., Datry, T., Von Schiller, D., Corti, R., Mendoza Lera, C., Cauvy Fraunie, S., et al. (2019) Simulating rewetting events in intermittent rivers and ephemeral streams: a global analysis of leached nutrients and organic matter. *Global Change Biology*, 25(5), 1591-1611

- Straka M., Polasek M., Sytovatka V., Stubbington R., Zahradokova S., Nemejcova D., Sikulova L., Reznickova P., Opatrilova L., Datry T., Paril P. (2019). Recognition of stream drying based on benthic invertebrates: a new tool in Central Europe. *Ecological Indicators*, DOI 10.1016/j.ecolind.2019.105486
- Stubbington R., Sarremejane R. & Datry T. (2019) Alpha and beta diversity of connected surface–subsurface invertebrate communities respond to drying in dynamic river ecosystems. *Ecography*, in press
- Stubbington, R., Paillex, A., England, J., Barthes, A., Bouchez, A., Rimel, F., Mar Sanchez Montoya, M., Westwood, C.G., Datry, T. (2019) A comparison of biotic groups as dry-phase indicators of ecological quality in intermittent rivers and ephemeral streams. *Ecological Indicators*, 97, 165-174
- Tolonen K.E., Picazo F., Vilmi A., Stubbington R., Paril P., Datry T & Heino J. (2019) Parallels and contrasts between intermittently freezing and drying streams: from individual adaptations to biodiversity variation. *Freshwater Biology*, in press
- Van Looy, K., Tonkin, J.D., Flourey, M., Leigh, C., Soininen, J., Larsen, S., Heino, J., Le Roy Poff, N., Delong, M., Jahnig, S.C., Datry, T., Bonada, N., Rosebery, J., Jamoneau, A., Ormerod, S.J., Collier, K.J., Wolter, C. (2019) The three Rs of river ecosystem resilience: Resources, Recruitment and Refugia. *River Research and Applications*, 35(2), 107-120
- Von Schiller, D., Datry, T., Corti, R., Foulquier, A., Mendoza Lera, C., Cauvy Fraunie, S., et al. (2019) Sediment Respiration Pulses in Intermittent Rivers and Ephemeral Streams. *Global Biogeochemical Cycles*, vol. 33, (10), 1251-1263
- Weyhenmeyer, G.A., Hartmann, J., Hessen, D.O., Kopacek, J., Hejzlar, J., Jacquet, S., Hamilton, S.K., Verburg, P., Leach, T.H., Schmid, M., Flaim, G., Noges, T., Noges, P., Wentzky, V.C., Rogora, M., Rusak, J.A., Kosten, S., Paterson, A.M., Teubner, K., Higgins, S.N., Lawrence, G., Kangur, K., Kokorite, I., Cerasino, L., Funk, C., Harvey, R., Moatar, F., De Wit, H.A., Zechmeister, T. (2019) Widespread diminishing anthropogenic effects on calcium in freshwaters. *Scientific Reports*, 9(1), 10 p. <https://doi.org/10.1038/s41598-019-46838-w>

2018

- Beaufort A., Lamouroux N., Pella H., Datry T., Sauquet E. (2018) Extrapolating regional probability of drying of headwater streams using discrete observations and gauging networks. *Hydrology and Earth System Sciences*, 22, 3033-3051.
- Blaen, P. J., Kurz, M. J., Drummond, J. D., Knapp, J. L., Mendoza-Lera, C., Schmadel, N. M., Datry, T., & Ward, A. S. 2018. Woody debris is related to reach-scale hotspots of lowland stream ecosystem respiration under baseflow conditions. *Ecohydrology*, e1952.
- Bravo A.G., Kothawala D.N., Attermeyer K., Tessier E., Bodmer, P. et al. (2018) The interplay between total mercury, methylmercury and dissolved organic matter in fluvial systems: A latitudinal study across Europe. *Water research*, 144:172-182.
- Capra H., Pella H. & Ovidio M. 2018. Individual movements, home-ranges and habitat use by native rheophilic cyprinids and non-native catfish in a large regulated river. *Fisheries Management and Ecology* 25: 136-149. doi: 10.1111/fme.12272.
- Datry T., Boulton A.J., Bonada N., Fritz K., Leigh C., Sauquet E., Tockner K., Hugueny B., Dahm C.D. (2018) Flow intermittence and ecosystem services in non-perennial rivers of the Anthropocene. *Journal of Applied Ecology*, 55, 353-364.
- Datry, T., et al (92 co-authors) 2018. A global analysis of terrestrial plant litter dynamics in non-perennial waterways. *Nature Geoscience* 11, 497-503.
- Dick J., Orenstein D.E., Holzer J., Wohner C., Achard A.-L., Andrews C., Avriel-Avni N., Beja P., Blond N., Cabello J., Chen C., Díaz-Delgado R., Giannakis G.V., Gingrich S., Izakovicova Z., Krauze K., Lamouroux N., Leca S., Melecis V., Miklós K., Mimikou M., Niedrist G., Piscart C., Postolache C., Psomas A., Santos-Reis M., Tappeiner U., Vanderbilt K., Van Ryckegem G. (2018) What is socio-ecological research delivering? A literature survey across 25 international LTSER platforms. *Science of the Total Environment*, 622-623, 1225-1240.
- Folegot S., Krause S., Mons R., Hannah D.M., Datry T. (2018) Mesocosm experiments reveal the direction of groundwater-surface water exchange alters the hyporheic refuge capacity under warming scenarios. *Freshwater Biology*, 63, 165-177.
- Lamouroux N., Augerard B., Baran P., Capra H., Le Coarer Y., Girard V., Gouraud V., Navarro L., Prost O., Sagnes P., Sauquet E., Tissot L. (2018) Débits écologiques : la place des modèles d'habitat dans une démarche intégrée. *Hydroécologie Appliquée*, 20, 1-26.
- Marshall, J.C., V. Acuña, D.C. Allen, N. Bonada, A.J. Boulton, S.M. Carlson, C.N. Dahm, T.Datry, C. Leigh, P. Negus, J.S. Richardson, S. Sabater, A. L. Steward, R. Stubbington, K. Tockner, R. Vander Vorste 2018.

- Protecting US river health by maintaining the legal status of temporary waterways. *Science*, e, 361(6405), 856-857.
- Mouthon J., Forcellini M., Van Haaren, T (2018) *Euglesa compressa* (Bivalvia, Sphaeriidae), native of North America, a “hidden” species introduced in Western Europe before 1940. *Basteria*, 82 (1-3), 50-54.
- Ruffoni, A., J.-P. G. Reding and B. Launay (2018). Nouvelles observations d'*Isoperla obscura* (Zetterstedt, 1840) en France [Plecoptera, Perlodidae]. *Ephemera* 19 (1): 1-12.
- Subbington R., Chadd R., Cid N., Csabai Z., Milisa M., Morais M., Munné A., Paril P., Pesic V., Tziortzis I., Verdonschot R.C.M., Datry T. (2018) Biomonitoring of intermittent rivers and ephemeral streams in Europe: current practice and priorities to enhance ecological status assessments. *Science of the Total Environment*, 618, 1096-1113.
- Subbington, R., Paillex, A., England, J., Barthès, A., Bouchez, A., Rimet, F., ... & Datry, T. (2018). A comparison of biotic groups as dry-phase indicators of ecological quality in intermittent rivers and ephemeral streams. *Ecological Indicators*, 97, 165-174.
- Tachet, H., Coppa G., Forcellini M. (2018) A comparative description of the larvae of *Psychomyia pusilla* (Fabricius 1781), *Metatype fragilis* (Pictet 1834), and *Paduniella vandeli* Décamps 1965 (Trichoptera: Psychomyiidae) and comments on the larvae of other species belonging to these three genera. *Zootaxa*, 4402 (1), 091-112.

2017

- Datry, T., Singer, G., Sauquet, E., Jorda-Capdevila, D., Von Schiller, D., Subbington, R., ... & Alves, M. H. 2017. Science and Management of Intermittent Rivers and Ephemeral Streams (SMIRES). *Research Ideas and Outcomes*, 3, e21774
- Bret V., Capra H., Gouraud V., Lamouroux N., Piffady J., Tissot L., Rivot E. (2017) Understanding inter-reach variation in brown trout (*Salmo trutta*) mortality rates using a hierarchical Bayesian state-space model. *Canadian Journal of Fisheries and Aquatic Sciences*, 74, 1612-1627.
- Capra H., Plichard L., Bergé J., Pella H., Ovidio M., McNeil E., Lamouroux N. (2017) Fish habitat selection in a large hydropeaking river: strong individual and temporal variations revealed by telemetry. *Science of the Total Environment*, 578, 109-120.
- Daigle A., Caudron A., Vigier L., Pella, H. (2017) Optimization methodology for a river temperature monitoring network for the characterization of fish thermal habitat. *Hydrological Sciences Journal*, 62(3), 483-497.
- Datry T., Vander Vorste R., Goitia E., Moya N., Campero M., Rodriguez F., Zubietta J., Oberdorff T. (2017) Context dependent resistance of freshwater invertebrate communities to drying. *Ecology and evolution*, 7(9), 3201-3211.
- Harby A., Martinez-Capel F., Lamouroux N. (2017) From microhabitat ecohydraulics to an improved management of river catchments: bridging the gap between scales. *Special Issue, River Research and Applications*, 33, 189-191.
- Heino J., Alahuhta J., Ala-Hulkko T., Antikainen H., Bini L.M., Bonada N., Datry T., Erös T., Hjort J., Kotavaara O., Melo A.S., Soininen J. (2017) Integrating dispersal proxies in ecological and environmental research in the freshwater realm. *Environmental Reviews*, 25 (3), 334-349.
- Lebrun J. D., Dufour M., Uher E., Faburé J., Mons R., Charlatchka R., Gourlay-Francé C., Fechner L.C., Ferrari B. (2017) To what extend the dam dredging can influence the background level of metals in the Rhine River: using chemical and biological long-term monitoring to answer. *Knowledge and Management of Aquatic Ecosystems*, 418, 54.
- Leigh C., Datry T. (2017) Drying as a primary hydrological determinant of biodiversity in river systems: a broad-scale analysis. *Ecography*, 40(4), 487-499.
- Leigh C., Laporte B., Bonada N., Fritz K., Pella H., Sauquet E., Tockner K., Datry T. (2017). IRBAS: An online database to collate, analyze, and synthesize data on the biodiversity and ecology of intermittent rivers worldwide. *Ecology and Evolution*. 7(3), 815-823.
- Mendoza-Lera C., Datry T. (2017) Relating hydraulic conductivity and hyporheic zone biogeochemical processing to conserve and restore river ecosystem services. *Science of the Total Environment*, 579, 1815-1821.
- Milner A.M., Khamis K., Battin T.J., Brittain J.E., Barrand N.E. et al. (2017). Glacier shrinkage driving global changes in downstream systems. *Proceedings of the National Academy of Sciences*, 114(37):9770-9778
- Mouthon J., Forcellini M. (2017) Genetic evidence of the presence in France of the North American species *Euglesa compressa* Prime, 1852 (Bivalvia, Sphaeriidae), *BioInvasions Records*, 6(3), 225-231.
- Mouthon J., Forcellini M., Le Goff G. (2017) Reconnaître *Euglesa (Cyclocalyx) compressa* Prime, 1852, (Bivalvia, Sphaeriidae), une nouvelle espèce pour la faune de France. *Folia conchyliologica*, 38, 3-7.
- Piégay H., Lamouroux N. (2017) Enlarging spatial and temporal scales for riverine biophysical diagnosis and adaptive management. *Journal of Environmental Management*, 202, 333-336.

- Plichard L., Capra H., Mons H., Pella H., Lamouroux N. (2017). Comparing electrofishing and snorkelling for characterizing fish assemblages over time and space. Canadian Journal of Fisheries and Aquatic Sciences, 74(1), 75-86.
- Riquier J., Piégay H., Lamouroux N., Vaudor L (2017) Are restored side channels sustainable aquatic habitat features? Predicting the potential persistence of side channels as aquatic habitats based on their fine sedimentation dynamics. *Geomorphology*, 295, 507-528.
- Rosset V., Ruhi A., Bogan M.T., Datry T. (2017) Parallels and contrasts in biotic responses to drying between lotic and lentic temporary freshwater systems. *Ecosphere*, 8 (7), 1-14.
- Ruhi A., Datry T., Sabo J.-L. (2017) Interpreting beta-diversity components over time to conserve metacommunities in highly dynamic ecosystems. *Conservation Biology*, 31 (6), 1459-1468.
- Skoulikidis T.-N., Sabater S., Datry T., Morais M., Buffagni A., Dorflinger G., Stamatidis Z., Sanchez Montoya M., Bonada N., Kalogianni E., Rosado J., Vardakas L., De Girolamo A.-M., Tockner K. (2017) Non-perennial Mediterranean rivers in Europe: Status, pressures, and challenges for research and management. *Science of the Total Environment*, 577, 1-18.
- Soria M., Leigh C., Datry T., Bini M., Bonada N. (2017) Biodiversity in intermittent rivers: a meta-analysis. *Oikos*, 126, 1078-1089.
- Tissot L., Bret V., Capra H., Baran P., Gouraud V. (2017). Main potential drivers of trout population dynamics in bypassed stream sections. *Ecology of Freshwater Fish*, 26, 336-346.
- Vander Vorste R., Mermilliod-Blondin F., Hervant F., Mons R., Datry T. (2017) Gammarus pulex avoids both increasing water temperature and intraspecific competition through vertical migration into the hyporheic zone: results from a mesocosm experiment. *Aquatic Sciences*, 79(1), 45-55.

2016

- Abbott B.-W., Baranov V., Mendoza Lera C., Nikolakopoulou M., Harjung A., Kolbe T., Balasubramanian M., Vaessen T.-N., Ciocca F., Campeau A., Wallin M., Romeijn P., Antonelli M., Gonçalve J., Datry T., Laverman A.-M., De Dreuz J.-R., Hannah D.-M., Krause S., Oldham C., Pinay G. (2016) Using multi-tracer inference to move beyond single-catchment ecohydrology. *Earth Science Reviews*, 160, 19-42.
- Bret V., Bergerot B., Capra H., Gouraud V., Lamouroux N. (2016) Influence of discharge, hydraulics, water temperature, and dispersal on density synchrony in brown trout populations (*Salmo trutta*). *Canadian Journal of Fisheries and Aquatic Sciences*, 73(3), 319-329.
- Cauvy Fraunié S., Andino P., Espinosa R., Calvez R., Jacobsen D., Dangles O. (2016) Ecological responses to experimental glacier-runoff reduction in alpine rivers. *Nature Communications*, 7.
- Coppa G., Bonada N., Datry T., Gonzalez M., Launay B., Le Guellec G., Murria C., Zamora Munoz C. (2016) First record of *Hydropsyche spiritoi* Moretti, 1991 in France [Trichoptera, Hydropsychidae]. *Ephemera*, 17, 43-46.
- Corti R., Datry T. (2016) Terrestrial and aquatic invertebrates in the riverbed of an intermittent river: parallels and contrasts in community organisation. *Freshwater Biology*, 61(8), 1308-1320.
- Datry T., Bonada N., Heino J. (2016) Towards understanding the organisation of metacommunities in highly dynamic ecological systems. *Oikos*, 125(2), 149-159.
- Datry T., Corti R., Foulquier A., Von Schiller D., Tockner T. (2016) One for all, all for one: a global river research network. *EOS Earth & Space Science News*, 97(15), 13-15.
- Datry T., Fritz K., Leigh C. (2016) Challenges, developments and perspectives in intermittent river ecology. *Freshwater Biology*, 61(8), 1171-1180.
- Datry T., Melo A.-S., Moya N.-B., Zubietta J., De la Barra E., Oberdorff T. (2016) Metacommunity patterns across three Neotropical catchments with varying environmental harshness. *Freshwater Biology*, 61(3), 277-292.
- Datry T., Moya N., Zubietta J., Oberdorff T. (2016) Determinants of local and regional communities in intermittent and perennial headwaters of the Bolivian Amazon. *Freshwater Biology*, 61, 1335-1349.
- Datry T., Pella H., Leigh C., Bonada N., Hugueny B. (2016) A landscape approach to advance intermittent river ecology. *Freshwater Biology*, 61, 1200-1213.
- Lamouroux N., Augerard B., Baran P., Capra H., Le Coarer Y., Girard V., Gouraud V., Navarro L., Prost O., Sagnes P., Sauquet E., Tissot L. (2016) Débits écologiques : la place des modèles d'habitat dans une démarche intégrée. *Hydroécologie Appliquée*.
- Leigh C., Bonada N., Boulton A.-J., Hugueny B., Larned S.-T., Vander Vorste R., Datry T. (2016) Invertebrate assemblage responses and the dual roles of resistance and resilience to drying in intermittent rivers. *Aquatic Sciences*, 78, 291-301.
- Leigh C., Boulton A.-J., Courtwright J.-L., Fritz K., May C.-L., Walker R.-H., Datry T. (2016) Ecological research and management of intermittent rivers: an historical review and future directions. *Freshwater Biology*, 61, 1181-1199.

- Miguel C., Lamouroux N., Pella H., Labarthe B., Flipo N., Akopian M., Belliard J. (2016) Altération d'habitat hydraulique à l'échelle des bassins versants : impacts des prélèvements en nappe du bassin Seine-Normandie. *Houille Blanche-Revue Internationale de l'eau*, 3, 65-74.
- Reding J.P.G., Launay B., Ruffoni A., Vincon G., Boumans L. (2016) A new species of *Zwicknia Murányi* (Plecoptera, Capniidae) from the French and Swiss Jura Mountains, the French Massif Central, and the French Middle Rhône Region. *Zootaxa*, 4121, 133-146.
- Schmadel N.-M., Ward A.-S., Kurz M.-J., Fleckenstein J.-H., Zarnetsky J.-P., Hannah D.-M., Blume T., Vieweg M., Blaen P.-J., Schmid C., Knapp J.-L.-A., Klaar M.-J., Romeijn P., Datry T., Keller T., Folegot S., Arricibita A.-I.-M., Krause S. (2016) Stream solute tracer timescales changing with discharge and reach length confound process interpretation. *Water Resources Research*, 52, 3227-3245.
- Schmitt L., Grospretre L., Breil P., Namour P., Lafont M., Delile H., Eschbach D., Jacob-Rousseau N., Cournoyer B. (2016). L'hydromorphologie, une dimension-clé pour l'étude interdisciplinaire des petits hydrossystèmes périurbains (bassin de l'Yzeron, France). *Bulletin de la Société Géographique de Liège*, 61, 161-179.
- Stewardson M., Datry T., Lamouroux N., Pella H., Thommeret N., Valette L., Grant S. (2016) Variation in reach-scale hydraulic conductivity of streambeds. *Geomorphology*, 259, 70-80.
- Vander Vorste R., Corti R., Sagouis A., Datry T. (2016) Invertebrate communities in gravel-bed, braided rivers are highly resilient to flow intermittence. *Freshwater Science*, 35, 164-177.
- Vander Vorste R., Mermilliod Blondin F., Hervant F., Mons R., Forcellini M., Datry T. (2016) Increased depth to the water table during river drying decreases the resilience of *Gammarus pulex* and alters ecosystem function. *Ecohydrology*, 9, 1177-1186.
- Vander Vorste, R., Malard F., Datry T. (2016) Is drift the primary process promoting the resilience of river invertebrate communities? A manipulative field experiment in an intermittent alluvial river. *Freshwater Biology*, 61, 1276-1292.

2015

- Castella E., Beguin O., Besacier-Monbertrand A.-L., Hug Peter D., Lamouroux N., Mayor Siméant H. et al. (2015) Changes in benthic invertebrates and their prediction after the restoration of lateral connectivity in a large river floodplain. *Freshwater Biology*, 60, 1131-1146.
- Datry T., Lamouroux N., Thivin G., Descloux S., Baudoin J.M. (2015) Estimation of Sediment Hydraulic Conductivity in River Reaches and its Potential Use to Evaluate Streambed Clogging. *River Research and Applications*, 31, 880-891.
- Daufresne M., Veslot J., Capra H., Carrel G., Poirel A., Olivier J.-M., Lamouroux N. (2015) Fish community dynamics (1985-2010) in multiple reaches of a large river subjected to flow restoration and other environmental changes. *Freshwater Biology*, 60, 1176-1191.
- Dolédec S., Castella E., Forcellini M., Olivier J.-M., Paillex A. & Sagnes P. (2015) The generality of changes in the trait composition of fish and invertebrate communities after flow restoration in a large river (French Rhône). *Freshwater Biology*, 1147-1161.
- Dolédec S., Forcellini M., Olivier J.-M., Roset N. (2015) Effects of large river restoration on currently used bioindicators and alternative metrics. *Freshwater Biology*, 1221-1236.
- Foulquier A., Pesce S., Artigas J., Datry T. 2015. Drying responses of microbial litter decomposition and associated fungal and bacterial communities are not affected by emersion frequency. *Freshwater Sciences* 34(4), 1233-1244.
- Frugé, J.-F., Jézéquel C., Archambaud G., Dessaix J., Roger M.-C. (2015) Long-term effects of global and local changes on benthic macroinvertebrate communities in multi-stressed large rivers: The example of the Rhône River during the last 30 years. *Knowledge and Management of Aquatic Ecosystems*, 416:29.
- Lamouroux N., Gore J.A., Lepori F. & Statzner B. (2015) The ecological restoration of large rivers needs science-based, predictive tools meeting public expectations: an overview of the Rhône project. *Freshwater Biology*, 60, 1069-1084.
- Lamouroux N., Olivier J.-M. (2015) Testing predictions of changes in fish abundance and community structure after flow restoration in four reaches of a large river (French Rhône). *Freshwater Biology*, 60, 1118-1130.
- Leigh C., Bush A., Harrison E.T., Ho S.S., Luke L., Rolls R.J., Ledger M.E. (2015) Ecological effects of extreme climatic events on riverine ecosystems: insights from Australia. *Freshwater Biology*, 60, 2620-2638.
- Leigh C., Watkinson A., Burford MA. (2015) Effects of extreme inflows on the water quality and phytoplankton of seven reservoirs in subtropical Australia. *Inland Waters* 5, 240-252.

- Mérigoux S., Forcellini M., Dessaix J., Frugé J.-F., Lamouroux N., Statzner B. (2015) Testing predictions of changes in benthic invertebrate abundance and community structure after flow restoration in a large river (French Rhône). *Freshwater Biology*, 60, 1104-1117.
- Mouthon J., Daufresne M. (2015) Resilience of mollusc communities of the River Saône (eastern France) and its two main tributaries after the 2003 heatwave. *Freshwater Biology*, 60, 2571-2583.
- Rolls RJ, Leigh C, Langhans SD. (2015) Improving science through improved acknowledgment of reviewers. *Conservation Biology* 29, 307-308.
- Vaudor L., Lamouroux N., Olivier J.-M., Forcellini M. (2015) How sampling influences the statistical power to detect changes in abundance: an application to river restoration. *Freshwater Biology*, 60, 1192-1207.

2014

- Acuna V., Datry T., Marshall J., Barcelo D., Dahm C.N., Ginebrela A., McGregor G., Sabater S., Tockner K., Palmer M.A. (2014). Why Should We Care about Temporary Waterways? *Science*, 343, 1080-1081.
- Arce E., Archaimbault V., Mondy C.P., Usseglio-Polatera P. (2014) Recovery dynamics in invertebrate communities following water-quality improvement: taxonomy - vs trait-based assessment. *Freshwater Science*, 33, 1060-1073.
- Corti R., Datry T. (2014) Drying of a temperate, intermittent river has little effect on adjacent riparian arthropod communities. *Freshwater Biology*, 59, 666-678.
- Datry T., Corti R., Belletti B., Piégay H. (2014) Ground-dwelling arthropod communities across braided river landscape mosaics: a Mediterranean perspective. *Freshwater Biology*, 59, 1308-1322.
- Datry T., Larned S.T., Fritz K.F., Bogan, M.T., Wood P., Meyer E., Santos A. (2014) Broad-scale patterns of invertebrate richness and community composition in temporary rivers: effects of flow intermittence. *Ecography*, 37, 94-104.
- Datry T., Larned S.T., Tockner K. (2014) Intermittent river: a challenge for freshwater ecology. *BioScience*, 64, 229-235.
- Descloux S., Datry T., Usseglio-Polatera P. (2014) Trait-based structure of invertebrates along a gradient of sediment colimation: Benthos versus hyporheos responses. *Science of the Total Environment*, 466-467, 265-276.
- Girard V., Lamouroux N., Mons R. (2014) Modeling point velocity and depth statistical distributions in steep tropical and alpine stream reaches. *Water Resources Research*, 50, 427-439.
- Girard V., Monti D., Valade P., Lamouroux N., Mallet J.P., Grondin H. (2014). Hydraulic preferences of shrimps and fishes in tropical insular rivers. *River Research and Applications* 30, 766-779.
- Gouraud V., Baran P., Bardonnet A., Beaufrère C., Capra H., Caudron A., Delacoste M., Lascaux J.M., Naura M., Ovidio M., Poulet N., Tissot L., Sabaton C., Baglinière J.L. (2014) Sur quelles connaissances se baser pour évaluer l'état de santé des populations de truite commune (*Salmo trutta*) ? *Hydroécologie Appliquée*, 18, 111-138.
- Lamouroux N., Pella H., Snelder T.H., Sauquet E., Lejot J., Shankar U. (2014) Uncertainty models for estimates of physical characteristics of river segments over large areas. *Journal of the American Water Resources Association*, 50, 1-13.
- Morandi B., Piégay H., Lamouroux N., Vaudor L. (2014) How is success or failure in river restoration projects evaluated? Feedback from French restoration projects. *Journal of Environmental Management*, 137, 178-188.
- Mouthon J., Franzoni A. (2014) Etat des populations d'*Unio crassus* (Bivalvia: Unionidae) en Franche-Comté (France). *Folia Conchyliologica*, 27, 8-13.
- Mouthon J., Magny M. (2014) Unprecedented changes in mollusc assemblages of the littoral zone in the two largest peri-Alpine lakes since the last 4500 years. *Journal of Limnology*, 73, 36-46.
- Mouthon J., Vimperg J. (2014) *Myxas glutinosa* (Mollusca: Gastropoda), espèce mal connue et menacée : état des connaissances sur sa répartition passée et actuelle en France. *Folia Conchyliologica*, 27, 14-20.
- Rosset V., Angelibert S., Arthaud F., Bornette G., Robin J., Wezel A., Vallod D., Oertli B. (2014) Is eutrophication really a major impairment for small waterbody biodiversity? *Journal of Applied Ecology*, 51, 415-425.
- Souben J., Loiseau J., Roger M.C. (2014) Dynamique de colonisation des voies navigables du bassin de la Seine par *Chelicorophium curvispinum* (Crustacea : Amphipoda). *Hydroécologie Appliquée*, 18, 1-14.
- Wezel A., Oertli B., Rosset V., Arthaud F., Leroy F., Smith R., Angelibert S., Bornette G., Vallod D., Robin J. (2014) Biodiversity patterns of nutrient-rich fish ponds and implications for conservation. *Limnology*, 15, 213-223.

2013

- Capderrey C., Datry T., Douady C., Claret C., Malard F. (2013) Invertebrate distribution across nested geomorphic features in braided-river landscapes Freshwater Science 32(4), 1188-1204.
- Colas F., Archaimbault V., Ferard J.-F., Bouquerel J., Roger M.-C., Devin S. (2013) Benthic indicators of sediment quality associated with run-of-river reservoirs Hydrobiologia, 703, 149-164.
- Corti R., Larned S., Datry T. (2013) Pitfall traps and quadrat searches for sampling ground-dwelling invertebrates in dry riverbeds. Hydrobiologia 717(1), 13-26.
- Descloux S., Datry T., Marmonier P. (2013) Benthic and hyporheic assemblages along a gradient of increasing sediment colimation by fine sediment. Aquatic Sciences 75, 493-507.
- Descloux S., Datry T., Usseglio-Polaterra P., 2014. Trait-based structure of invertebrates along a gradient of sediment colimation: benthos versus hyporheos responses. Science of The Total Environment 466, 265-276.
- Forcellini M., Statzner B., Tachet, H. (2013) A revised description of the larva of *Homilia leucophaea* (Rambur 1842) (Trichoptera: Leptoceridae) and comparisons with the known western European *Athriptodes* larvae. Zootaxa 3682(1), 191-199.
- Girard V., Le Goulen P., Calvez R., Lamouroux N. (2013) Velocity and depth distributions in stream reaches: testing European models in tropical Andean highlands. Journal of Hydraulic Engineering, 139, 794-798.
- Lamouroux N., Mérigoux S., Dolédec S., Snelder T.H. (2013) Transferability of hydraulic preference models of aquatic macroinvertebrates. River Research and Applications, 29, 933-937.
- Larned S. T. & Datry T. , 2013. Flow variability and longitudinal patterns in parafluvial water chemistry, aquatic invertebrates and microbial activity. Freshwater Biology 58(10), 2126-2143.
- Leigh C., Burford M.A., Connolly R.M., Olley J.M., Saeck E., Sheldon F., Smart J.C.R., Bunn S.E. (2013) Science to support management of receiving waters in an event-driven ecosystem: from land to river to sea. Water, 5, 780-797. doi:10.3390/w5020780
- Leigh C., Reis T.M., Fran Sheldon F. (2013) High potential subsidy of dry-season aquatic fauna to consumers in riparian zones of wet-dry tropical rivers. Inland Waters, 3, 411-420.
- Nogaro, G., Datry, T., Mermillod-Blondin, F., Foulquier, A., Montuelle, B. , 2013. Influence of hyporheic zone characteristics on the structure and activity of microbial assemblages. Freshwater Biology 58(12) : 2567-2583.
- Snelder T.H., Datry T., Lamouroux N., Larned S.T., Sauquet E., Pella H., Catalogne C. (2013) Regionalization of patterns of flow intermittence from gauging station records. Hydrology and Earth System Sciences, 17, 2685-2699.
- Stubbington R., Datry T. (2013) The significance of the invertebrate seedbank in temporary rivers: a global analysis. Freshwater Biology 58(6), 1202-1220.
- Vivien R., Lafont M. (2013) Diversity of aquatic oligochaetes in the Geneva area (Switzerland). Revue Suisse de Zoologie, 120, 161-173.

2012

- Bergé J., Capra H., Pella H., Steig T.W., Ovidio M., Bultel E., Lamouroux N. (2012) Probability of detection and positioning error of a hydro acoustic telemetry system in a fast-flowing river: intrinsic and environmental determinants. Fisheries Research. 125-126, 1-13.
- Corti R., & Datry T. (in press) Invertebrate and sestonic matter in an advancing wetted front travelling down a dry riverbed (Albarine, France). Freshwater Science, 31, 1187-1201.
- Courtin, O., Corti, R. - 2012. *Agyrtes (Agyrtecanus) bicolor* Laporte de Castelnau, 1840: une espèce bien implantée à l'est de Lyon (Coleoptera Staphylinoidea Agyrtidae). L'Entomologiste, 68, 163-165.
- Datry T. (2012) Benthic and hyporheic invertebrate assemblages along a flow intermittence gradient: effects of duration of dry events. Freshwater Biology 57(3), 563-574.
- Datry T., Corti R., & Philippe M. (2012) Spatial and temporal aquatic-terrestrial transitions in the temporary Albarine River, France: responses of invertebrates to experimental rewetting. Freshwater Biology, 57, 716-727.
- Lafont M., Tixier G., Marsalek J., Jézéquel C., Breil P., Schmitt L. (2012) From Research to Operational Biomonitoring of Freshwaters: A Suggested Conceptual Framework and Practical Solutions. Ecohydrology and Hydrobiology, 12, 9-20.
- Marmonier P., Archambaud G., Belaidi N., Bougon N., Breil P., Chauvet E., Claret C., Cornut J., Datry T., Dole-Olivier M.-J., Dumont B., Flipo N., Foulquier A., Gérino M., Guilpart A., Julien F., Maazouzi C., Martin D., Mermillod-Blondin F., Montuelle B., Namour Ph., Navel S., Ombredane D., Pelte T., Piscart C., Pusch M., Stroffek S., Robertson A., Sanchez-Pérez J.-M., Sauvage S., Taleb A., Wantzen M. & Vervier Ph. (2011). The role of organisms in hyporheic processes: gaps in current knowledge, needs for future research and applications. International Journal of Limnology, 48, 253-266.

- Mondy, C.P., Villeneuve, B., Archaimbault, V., Usseglio-Polatera, P. (2012) A new macroinvertebrate-based multimetric index (I2M2) to evaluate ecological quality of French wadeable streams fulfilling the WFD demands: A taxonomical and trait approach. Ecological Indicators, 18, 452-467.
- Mouthon J. - 2012. Les mollusques de deux rivières franc-comtoises le Drugeon et la Clauge, comparaison entre les inventaires 1977-1978 et 2009-2010. MalaCo, vol. 8, 412-419.
- Mouthon J., Abbaci K. - 2012. The taxonomic confusion surrounding *Pisidium* (Bivalvia, Sphaeriidae): the possible birth of a new taxon. Basteria, vol. 76, n° 4-6, 126-130.
- Pella H., Lejot J., Lamouroux N., Snelder T. (2012) The theoretical hydrographical network (RHT) for France and its environmental attributes. Géomorphologie : Relief, Processus, Environnement.
- Snelder T.H., Barquin Ortiz J., Booker D., Lamouroux N., Pella H., Shankar U. (2012) Can bottom-up procedures improve the performance of stream classifications? Aquatic Sciences 74, 45-59.
- Tixier G., Rochfort Q., Grapentine L., Marsalek J. and Lafont M. (2012) Spatial and seasonal toxicity in a stormwater management facility: Evidence obtained by adapting an integrated sediment quality assessment approach. Water Research, vol. 46, 6671-6682.