

Prof. Dr. Klement Tockner



Klement Tockner is Director General of the Senckenberg Society for Nature Research and professor for Ecosystem Sciences at Goethe University, Frankfurt am Main (since 2021). He was President of the Austrian Science Fund – FWF (2016-2020), full professor for Aquatic Ecology at the Free University Berlin (2007-2020) and director of the Leibniz Institute of Freshwater Ecology and Inland Fisheries (IGB), Berlin (2007-2016). He received a PhD from the University of Vienna (1993) and a Titulary Professorship at ETH Zürich (2005). He is an internationally leading freshwater scientist, in particular in the research domains biodiversity, ecosystem science and environmental management. He was Editor-in-Chief of the journal *Aquatic Sciences* (2005-2014) and is Subject Editor of the journal *Ecosystems*. He has published about 250 scientific papers including 180 ISI papers. In 2009, he edited a comprehensive book on European Rivers (*Rivers of Europe*, Elsevier; 2nd Edition in 2021). Klement Tockner has successfully managed large inter- and transdisciplinary projects such as the EC-funded project BioFresh. He is member of several scientific committees and advisory boards including the National Institute of Environmental Studies, Japan (NIES) and the Biology Centre (CZ). He is elected member of the Austrian Academy of Sciences and the German Academy of Sciences, Leopoldina.

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CAREER / EMPLOYMENT HISTORY

Since 2021	Director General of the Senckenberg Society for Nature Research
Since 2021	Professor for Ecosystem Sciences at Goethe University Frankfurt, Germany
2017-2021	Head of the Austrian Agency for Research Integrity – ÖAWI, Vienna, Austria
2016-2020	President of the Austrian Science Fund – FWF, Vienna, Austria
2007-2020	Professor for Aquatic Ecology at the Freie Universität Berlin, Germany
2007-2016	Director of the Leibniz Institute of Freshwater Ecology and Inland Fisheries (IGB), Berlin, Germany
2005	Titulary Professorship at ETH Zürich, Switzerland
2004/2005	Guest Scientist at the Cary Institute of Ecosystem Studies, Millbrook, NY, USA
2002	JSPS research fellow at the Tohoku University, Sendai, Japan
1999-2007	Group leader at EAWAG/ETH, Dübendorf, Switzerland
1996-1999	Assistant professor ('Oberassistent') at ETH Zurich, Switzerland

1994-1996	Postdoctoral fellow at University of Vienna, Austria
1993-1994	Freshwater consultant in Rwanda and Uganda, Africa
1993	Ph.D in Zoology & Botany at University of Vienna, Austria

PRIZES & AWARDS (Selection)

Elected member of the German Academy of Sciences, Leopoldina (elected in 2015), Elected member of the Austrian Academy of Sciences (elected in 2012), Wikimedia Prize for “Freies Wissen” (FWF, 2019), Fenner Lecture (UNC-Chapel Hill, USA, 2013), Margalef Lecture (Guimares, Portugal, 2012), Fellow of JSPS, Sendai, Japan (2002), Liepolt-Prize for Danube Research (1999).

PROFESSIONAL ACTIVITIES (Selection)

Leibniz Association	Speaker of the Leibniz Biodiversity Network (LVB), a network of 22 institutes (2009-2014)
	Speaker of the Section “Environmental Sciences” (Sektion E: Umweltwissenschaften; 2011-2013)
Forschungsverbund Berlin	Speaker of a network of eight research institutes of the Leibniz Association (2011-2013), Co-Speaker (2015-2016)
Advisory Boards	BC – Biology Centre of CAS, České Budějovice, Czech Republic (since 2019)
	ZALF – Leibniz Center for Agricultural Landscape Research, Müncheberg, Germany (2016-2020)
	NIES – National Institute for Environmental Studies, Japan (since 2015)
	BfG – Federal Institute of Hydrology, Bonn, Germany (2011-2016; co-chair)
	ICRA – Catalan Water Research Institute, Girona, Spain (2009-2016)
German Research Foundation	Member of the DFG Commission for Biodiversity (2014-2016)
	Member of Research Panel Water Research (<i>Fachkollegium</i> 318; 2012-2016)
	Permanent Guest of the DFG Commission for Water Research (KOWA; 2009-2016)
Committees	PLUS: Member of the Board Lodron University of Salzburg (since 2021)
	BIOFRESH: Coordinator of FP7-EU Project (2009-2014)
	DIVERSITAS: Member of DIVERSITAS freshwater BIODIVERSITY (2009-2013)
	Member of the Jury of the European Rivers Prize (2013)

Member of the Jury of the Katerva Prize (since 2012)

ISRS: International Society for River Science: Member of the Board of Directors (2009-2013)

BeGenDiv (Berlin Center for Genomics in Biodiversity Research):
Co-Speaker (2011-2016)

UNEP Project on Water Quality Guidelines for Ecosystems: Member of the Scientific Drafting Group.

Main Reviewer of the Global Environmental Outlook Report 5 of UNEP (Chapter Biodiversity)

Evaluation committee member of various research institutions in Germany, Czech Republic and Austria

Panel chair of the evaluation committee of the University of Uppsala (2017)

Science Europe: member of the executive committee (2016-2020) and the governance board (2017)

Editorial activities

Editor-in-Chief (2005-2014), Co-Editor (2015-2019) and Editorial Board Member (2015-2020) of the journal *Aquatic Sciences: Research across Boundaries*

Subject Editor (since 2005) of the journal *Ecosystems*

Co-Editor of four special issues (*Aquatic Sciences, Freshwater Biology, Rivers Research and Application, Fundamental & Applied Limnology*)

PUBLICATIONS

Books

- Drenckhahn, D., Arneth, A., Filser, J., Haberl, H., Hansjürgens, B., Herrmann, B., ... Tockner, K. (2020). *Globale Biodiversität in der Krise: Was können Deutschland und die EU dagegen tun?* Deutsche Akademie der Naturforscher Leopoldina eV-Nationale Akademie der Wissenschaften.
- Mehner, T., Likens, G. E., & Tockner, K. (Eds.). (2009). *Encyclopedia of Inland Waters*. Academic Press.
- Tockner, K., Uehlinger, U., Robinsion, C. T. (Eds.). (2009). *Rivers of Europe*. Academic Press. (2nd Edition: 2021).
- Woolsey, S., Weber, C., Gonser, T., Hoehn, E., Hostmann, M., Junker, B., Roulier, C., Schweizer, S., Tiegs, S., Tockner, K., Peter, A. (2005). *Handbook for evaluating rehabilitation projects in rivers and streams: A publication by the Rhone-Thur project*. Eawag, WSL, LCH-EPFL, VAW-ETHZ.

Special issues

- Lewandowski, J., Nützmann, G., & Tockner, K. (Eds.). (2014). *Frontiers in real-time ecohydrology*. *Fundamental and Applied Limnology*, 184, 3.
- Milner, A. M., & Tockner, K. (Eds.). (2010). *Freshwater Benthic Science – what has it contributed to ecological theory?* *River Research and Applications*, 26.
- Gurnell, A., Tubino, M., & Tockner, K. (Eds.). (2009). *Linkages and feedbacks in highly dynamic alpine fluvial systems*. *Aquatic Sciences*, 71.
- Tockner, K., Kollmann, J., Edwards, P. E., & Ward, J. V. (Eds.). (2002). *Riverine Landscapes*. *Freshwater Biology*, 47.

Selected articles

(Full List: <https://scholar.google.com.au/citations?user=QBgylXoAAAAJ&hl=en>)

- Messenger, M.L., Lehner, B., Cockburn, C., Lamouroux, N., Pella, H., Snelder, T., Tockner, K. (2021). Global prevalence of non-perennial rivers and streams. *Nature*, 594, 391–397. <https://doi.org/10.1038/s41586-021-03565-5>
- Moleón, M., Sánchez-Zapata, J. A., Donázar, J. A., Revilla, E., Martín-López, B., Gutiérrez-Cánovas, C., ... & Tockner, K. (2020). Rethinking megafauna. *Proceedings of the Royal Society B*, 287(1922), 20192643.
- Tickner, D., Opperman, J. J., Abell, R., Acreman, M., Arthington, A. H., ... Tockner, K., ... Young, L. (2020). Bending the Curve of Global Freshwater Biodiversity Loss: An Emergency Recovery Plan. *BioScience*, 70(4), 330-342. <https://doi.org/10.1093/biosci/biaa002>
- Grill, G., Lehner, B., Thieme, M., Geenen, B., Tickner, D., ... Tockner, K., ... Zarfl, C. (2019). Mapping the world's free flowing rivers. *Nature*, 569(7755), 215-221. <https://doi.org/10.1038/s41586-019-1111-9>
- He, F., Zarfl, C., Bremerich, V., David, J. N. W., Hogan, Z., ... Tockner, K., Jähnig, S. C. (2019). The global decline of freshwater megafauna. *Global Change Biology*, 25(11), 3883-3892. <https://doi.org/10.1111/gcb.14753>
- Jeschke, J. M., Lokatis, S., Bartram, I. & Tockner, K. (2019). Knowledge in the dark: scientific challenges and ways forward. *FACETS*, 4(1), 423-441. <https://doi.org/10.1139/facets-2019-0007>

- Reid, A. J., Carlson, A. K., Creed, I. F., Eliason, E. J., Gell, P. A., ... Tockner, K., ... Cooke, S. J. (2019). Emerging threats and persistent conservation challenges for freshwater biodiversity. *Biological Reviews*, *94*(3), 849-873.
- Datry, T., Foulquier, A., Corti, R., von Schiller, D., Tockner, K., Mendoza-Lera, C., ... Zoppini, A. (2018). A global analysis of terrestrial plant litter dynamics in non-perennial waterways. *Nature Geoscience*, *11*(7), 497-503. <https://doi.org/10.1038/s41561-018-0134-4>
- Turnbull, L., Hütt M.-C., Ioannides, A. A., Kininmonth, S., Poepl, R., Tockner, K., ... Parsons, A. J. (2018). Connectivity and complex systems: learning from a multi-disciplinary perspective. *Applied Network Science*, *3*(1), 11. <https://doi.org/10.1007/s41109-018-0067-2>
- Tydecks, L., Jeschke, J. M., Wolf, M., Singer, G., & Tockner, K. (2018). Spatial and topical imbalances in biodiversity research. *PLoS ONE*, *13*(7), e0199327. <https://doi.org/10.1371/journal.pone.0199327>
- Tydecks, L., Bremerich, V., Jentschke, I., Likens, G.E., & Tockner, K. (2016). Global Database on Biological Field Stations a pivotal infrastructure for environmental research, education and public information. *Limnology and Oceanography Bulletin*, *25*(3), 88-88. <https://doi.org/10.1002/lob.10133>
- Zarfl, C., Lumsdon, A. E., Berlekamp, J., Tydecks, L., & Tockner, K. (2015). A global boom in hydropower dam construction. *Aquatic Sciences*, *77*(1), 161-170. <https://doi.org/10.1007/s00027-014-0377-0>
- Acuña, V., Datry, T., Marshall, J., Barceló, D., Dahm, C. N., ... Tockner, K., Palmer, M. A. (2014). Why Should We Care About Temporary Waterways? *Science*, *343*(6175), 1080-1081. <https://doi.org/10.1126/science.1246666>
- Muehlbauer, J. D., Collins, S. F., Doyle, M. W., & Tockner, K. (2014). How wide is a stream? Spatial extent of the potential “stream signature” in terrestrial food webs using meta-analysis. *Ecology*, *95*(1), 44-55. <https://doi.org/10.1890/12-1628.1>
- Steward, A.L., von Schiller, D., Tockner, K., Marshall, J.C., & Bunn, S.E. (2012). When the river runs dry: human and ecological values of dry riverbeds. *Frontiers in Ecology and the Environment*, *10*(4), 202-209. <https://doi.org/10.1890/110136>
- Pahl-Wostl, C., Nilsson, C., Gupta, J., & Tockner, K. (2011). Societal Learning Needed to Face the Water Challenge. *AMBIO*, *40*(5), 549-553. <https://doi.org/10.1007/s13280-011-0149-1>
- Hölker, F., Wolter, C., Perkin, E. K., & Tockner, K. (2010). Light pollution as a biodiversity threat. *Trends in Ecology & Evolution*, *25*(12), 681-682. <https://doi.org/10.1016/j.tree.2010.09.007>
- Tockner, K., Pusch, M. T., Borchardt, D., & Lorang, M. S. (2010). Multiple stressors in coupled river-floodplain ecosystems. *Freshwater Biology*, *55*(s1), 135-151. <https://doi.org/10.1111/j.1365-2427.2009.02371.x>
- Tonolla, D., Acuña, V., Uehlinger, U., Frank, T., & Tockner, K. (2010). Thermal Heterogeneity in River Floodplains. *Ecosystems*, *13*(5), 727-740. <https://doi.org/10.1007/s10021-010-9350-5>
- Nakamura, K., Tockner, K., & Amano, K. (2006). River and Wetland Restoration: Lessons from Japan. *Bioscience*, *56*(5), 419-429. [https://doi.org/10.1641/0006-3568\(2006\)056\[0419:RAWRLF\]2.0.CO;2](https://doi.org/10.1641/0006-3568(2006)056[0419:RAWRLF]2.0.CO;2)
- Paetzold, A., Schubert, C. J., & Tockner, K. (2005). Aquatic Terrestrial Linkages Along a Braided-River: Riparian Arthropods Feeding on Aquatic Insects. *Ecosystems*, *8*(7), 748-759. <https://doi.org/10.1007/s10021-005-0004-y>
- Tockner, K., & Stanford, J. A. (2002). Riverine flood plains: present state and future trends. *Environmental Conservation*, *29*(3), 308-330. <https://doi.org/10.1017/S037689290200022X>
- Ward, J. V., & Tockner, K. (2001). Biodiversity: towards a unifying theme for river ecology. *Freshwater Biology*, *46*(6), 807-819. <https://doi.org/10.1046/j.1365-2427.2001.00713.x>
- (* doctoral candidates)