

## *Curriculum Vitae*

Dr Sebastian Szklarek  
European Regional Centre for Ecohydrology of the PAS

e-mail: s.szklarek@erce.unesco.lodz.pl



### **EDUCATION**

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- PhD in 2017      University of Lodz  
PhD thesis: “*Sequential sedimentation-biofiltration system as a treatment method for urban rivers supplied by stormwater runoff*”
- M. Sc. in 2011    University of Lodz  
M. Sc. thesis: “*Elaboration of geotextile, biodegradable filters for removal of nitrogen and phosphorus pollution from water ecosystems*”

### **MAIN RESEARCH AREAS**

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- Application of ecohydrology approach for mitigation of freshwater ecosystems contamination.
- Road salt and salination impact on freshwater ecosystem
- Urban runoff and urban stream water quality.
- Aquatic ecotoxicology in water quality assessment.

### **PROJECTS**

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- 2018-2023**      **Project partner** AQUARES Water reuse policies advancement for resource efficient European regions. Project brings together 10 partners from 9 countries, to achieve efficient water management through water reuse, profit from the opportunities in the water market, and secure the protection of water bodies. In this context, AQUARES will support public authorities to initiate efforts, join forces and exchange experiences to: identify viable strategies to utilize water reuse to confront inefficient uses of water; make the most of EU financing tools; promote public dialogue to address conflicting interests. ERCE PAN is a local partner of Lodzkie Region. *Interreg Europe project.*
- 2018-2021**      **Project Coordinator** of “Impact of road salt pollution in winter on zooplankton hatching success from resting eggs.” *founded by National Science Centre (2018/28/C/N/NZ8/00235)*
- 2018-2020**      **Principal investigator.** Research service and expert consultation in denitrification barrier developing.

- 2018-2019**      **Principal investigator** Research and development of the concept regarding the possibility of maintaining good water status at the MOSiR "Malinka" bathing site. IR.7011.46.1202/2012
- 2016-2019**      **Scientific assistant** "Use of artificial neural networks and methods in the field of pattern recognition for a complex catchment analysis of the impact of anthropogenic chemical and microbiological pollution on water resources". *financed by the National Science Centre, Poland (2015/19/B/ST10/02167)*
- 2016-2018**      **Scientific assistant:** "Adaptation to climate change through sustainable water management in the urban space of Radom" *LIFE14CCA/PL/000101*
- 2015-2017**      **Scientific assistant:** "Development and implementation of the method of lake reclamation and surface water protection based on natural biological technologies using beneficial microorganisms"  
*GEKON2/03/267948/21/2016*
- 2013-2016**      **Scientific assistant:** "Microbial activators in denitrification deposits used for the treatment of nitrate pollution for the implementation of the Water Framework Directive and the Nitrates Directive", *Project No. PBS1/A8/2012*
- 2011-2013**      **Scientific assistant:** "Innovative recourses and effective methods of safety improvement and durability of buildings and transport infrastructure in the sustainable development. Innovation of methods of harmonizing ecosystem biotechnologies with infrastructure of sewage systems and wastewater treatment" *POIG.01.01.02-10-106/09*
- 2010-2011**      **Scientific assistant:** Development of model geofibrous, biodegradable, biological deposits for recultivation nitrogen and phosphorus in threatened areas of agricultural landscape. *N R14 0061 06/ 2009*

## **PUBLICATIONS**

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1. Nájera, A.F., Serwecińska, L., **Szklarek, S.**, Mankiewicz-Boczek, J. 2020. Characterization and comparison of microbial communities in sequential sedimentation-biofiltration systems for removal of nutrients in urban rivers. *Ecological Engineering*, 149: 105796
2. Czatkowska, M., Harnisz, M., Kiedrzyńska, E., Kiedrzyński, M., Koniuszewska, I., Korzeniewska, E., **Szklarek, S.**, Zalewski, M. 2020. Catchment scale analysis of occurrence of antibiotic resistance genes in treated wastewater. *Ecohydrology and Hydrobiology* 20(1):12-20.
3. **S. Szklarek**, I. Wagner, T. Jurczak, M. Zalewski. **2018**. Sequential Sedimentation-Biofiltration System for the purification of a small urban river (the Sokolowka, Lodz) supplied by stormwater. *Journal of Environmental Management* 205: 201-208

4. T. Jurczak, I. Wagner, Z. Kaczkowski, **S. Szklarek**, M. Zalewski. **2018**. Hybrid system for the purification of street stormwater runoff supplying urban recreation reservoirs. *Ecological Engineering* 110: 67–77.
5. A. Bednarek, **S. Szklarek**, K. Dziedziczak, B. Kowalski, M. Zalewski. **2016**. The use of chemically treated organic recycling materials for the enhancement of freshwater purification. *Polish Journal of Environmental Studies*, 25(5): 1847-1855.
6. **S. Szklarek**, M. Stolarska, I. Wagner, J. Mankiewicz-Boczek. **2015**. The microbiotest battery as an important component in the assessment of snowmelt toxicity in urban watercourses - preliminary studies. *Environmental Monitoring and Assessment*, 187: 16
7. A. Bednarek, **S. Szklarek**, M. Zalewski. **2014**. Nitrogen pollution removal from areas of intensive farming – comparison of various denitrification biotechnologies. *Ecohydrology & Hydrobiology*, 14(2): 132-141.
8. Wagner, I., Stolarska, M., **Szklarek, S.**, Zalewski, M. **2014**. Koncepcja zagospodarowania dolin rzecznych na obszarach zurbanizowanych z uwzględnieniem zrównoważonego zarządzania zasobami wodnymi na przykładzie Łodzi. Wydawnictwo Uniwersytetu Łódzkiego, Łódź.
9. Y. Z. Negussie, M. Urbaniak, **S. Szklarek**, K. Lont, I. Gągała, M. Zalewski. **2012**. Efficiency analysis of two sequential biofiltration systems in Poland and Ethiopia – the pilot study. *Ecohydrology & Hydrobiology*, 12(4): 271-285
10. A. Bednarek, **S. Szklarek**. **2012**. Application of denitrification walls for the reduction of N pollution originating from rural areas of intensive agriculture [w:] Adaptation of ecohydrological system solutions and biotechnologies for Africa, (red.) Zalewski, M. i Urbaniak M., Łódź

## **ORGANISATIONAL MEMBERSHIPS AND OTHER ACTIVITY**

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Leading popular science blog „Świat Wody” in polish (Water World) for society education about water quantity and quality - website (<https://swiatwody.wordpress.com/>)