

Occurrence of Fluoroquinolones and Sulfonamides Resistance Genes in Wastewater and Sludge at Different Stages of Wastewater Treatment: A Preliminary Case Study

Damian Rolbiecki ¹, Monika Harnisz ^{1,*}, Ewa Korzeniewska ¹, Łukasz Jałowiecki ² and Grażyna Płaza ²

¹ Department of Engineering of Water Protection and Environmental Microbiology, The Faculty of Geoengineering, University of Warmia and Mazury in Olsztyn, Prawocheńskiego St. 1, 10-719 Olsztyn, Poland; damian.rolbiecki@uwm.edu.pl; ewa.korzeniewska@uwm.edu.pl

² Department of Environmental Microbiology, Institute for Ecology of Industrial Areas, Kossutha St. 6, 40-844 Katowice, Poland; g.plaza@ietu.pl; g.plaza@ietu.pl

* Correspondence: monika.harnisz@uwm.edu.pl; monikah@uwm.edu.pl

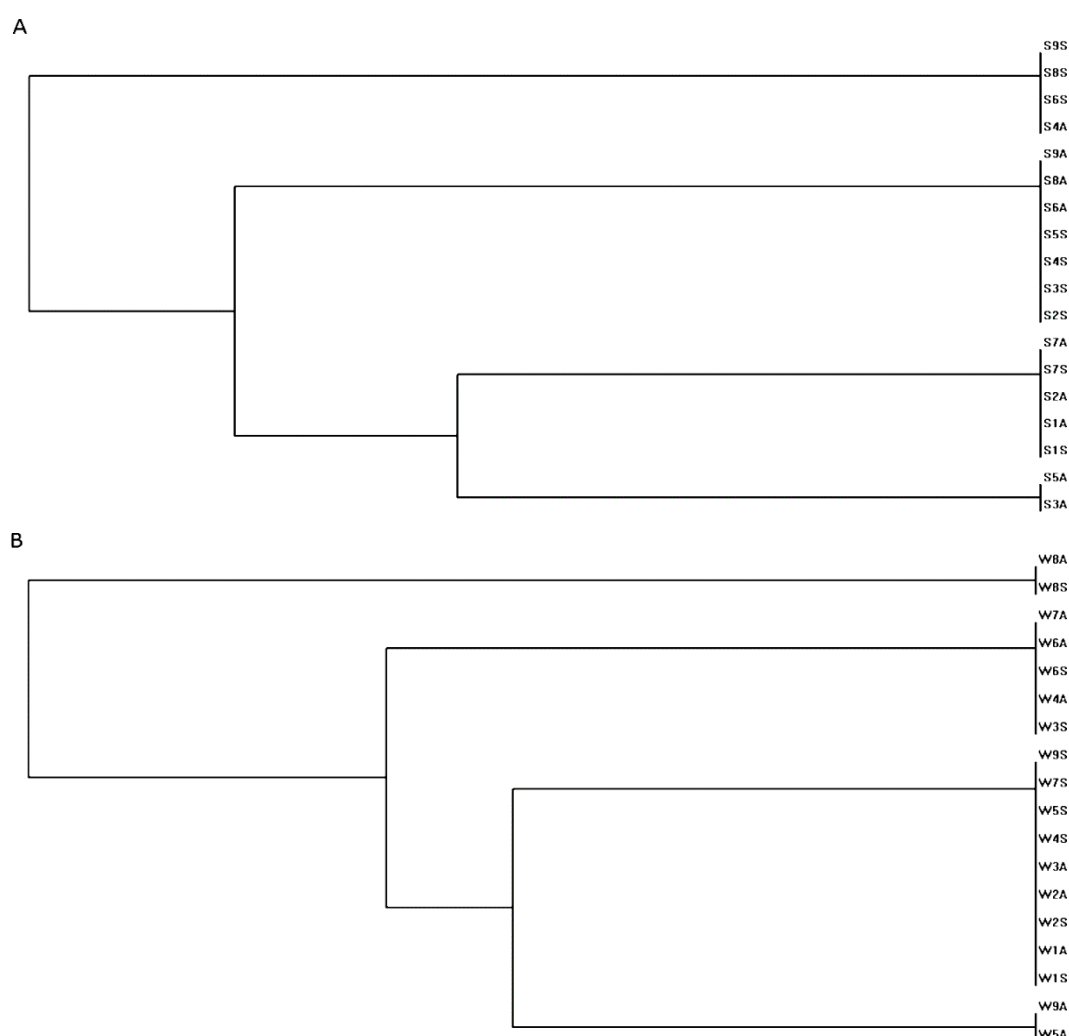


Figure S1. Similarity of samples, based on the occurrence of antibiotic-resistance genes (ARGs). Explanation of samples symbols in Table 1 (S or A at the end of the sample symbols stands for samples taken in summer and autumn, respectively). The hierarchical tree of the analyzed samples was generated for each research object (A–Region of Silesia (S-WWTP); B–Region of Warmia and Mazury (WM-WWTP)). The clustering analysis was performed with the Molecular Evolutionary Genetics Analysis (MEGA7) software.