CONSIDER SUBURBAN STREAMS AS HYBRIDS: METHODOLOGICAL REFLEXION FROM THE PARISTREAMS PROJECT

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ABSTRACT

Suburban streams often considered as our least restorable ecosystems but in fact constitute an important part of the hydrographic network in megalopolis and crucial environmental infrastructures for future urban development. Numerous studies have highlighted the dramatic hydrogeomorphological and ecological alterations due to the hydrological consequences of urban sprawl. Most often research focuses on the consequences of urban development but has not integrated ordinary practices and long-term river system management that have significantly reshaped existing rivers. Thus, we propose an interdisciplinary approach integrating the biophysical and social issues and different temporal and spatial scales in the Paris urban area. The PARISTREAMs project considers suburban streams as hybrids, i.e. as fragments of the socionature and proposes a holistic approach to develop a socio-ecological knowledge. The integration of palaeoenvironmental and historical research place the current restoration projects on a trajectory of the fluvial systems that is essential to understand the role of legacies (sediment, infrastructures, representations), that vary within an urban area, and to open the discussion on base line operation in a context of climate and metropolitan changes. Hydrogeomorphological (channel geometry), biological (macroinvertebrates, fish, riparian vegetation) studies and research on social practices and associated representations are required together, to determine the contemporary dynamics because the banks of these streams are subject to private ownership and to active management practices. The final objective is to propose a new hybrid methodology to have a holistic knowledge of suburban streams and to promote socioecological restoration according to their biophysical and social realities and the development of a renewed and shared river culture.