



Converges (CA16208): knowledge conversion for enhancing management of European riparian ecosystems and services

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Vegetation is a central component of riparian landscapes, modulating biological and physical processes and providing multiple ecosystem services. In recent decades such importance stimulated a steadily growing number of investigations focusing on riparian vegetation. However research studies in this field are proceeding as isolated initiatives that translate to common practices at a very slow rate and with limited input from the practitioners. Evidence of poor knowledge conversion at societal levels includes i) the marginality of riparian vegetation in EU normative assets (e.g. the Water Framework Directive); ii) the fact that vegetation-mediated processes are completely neglected in water policy debates and iii) the widespread degradation of riparian forest resulting from centuries of water use and environmental pressures exerted by society on rivers. Such degradation motivated many restoration and mitigation projects aiming at the improvement of riparian status. Alas, many have failed because of scarce consideration of vegetation-mediated processes, so that public resources have been ineffectively allocated. In order to address the above-mentioned issues, this action aims to establish a baseline in the state of knowledge regarding riparian vegetation, coordinate research efforts, contribute to knowledge conversion from science to practitioners and to COST Inclusiveness Target Countries and to promote practitioners research interests in the scientific community. CONVERGES COST Action was approved in June 2017 and is structured in four working groups that pursue to meet those goals. The starting point involves characterizing degradation of riparian vegetation across the EU, considering current status and pressures (WG1). This will be followed by mapping of European responses to riparian vegetation degradation (WG2) to finally establishing misalignments in riparian knowledge and priorities for knowledge conversion for enhanced management (WG3). A transversal working group dedicates to Dissemination and outreach of results and outcomes through all the Action life (WG4). Preliminary results show an increased development of research on riparian vegetation in the last decades, which has expanded across spatial scales (from microhabitat to hydrographic basin), gaining disciplinary depth (process-based, functional approaches), and including innovative tools (modelling and geomatics). In parallel, it is also confirmed that these research trends are not homogeneous across European regions, instead the knowledge remains geographically dispersed (i.e. East – West), an issue which limits comparability and transferability of results. Starting from the internal Action structure, CONVERGES is promoting effective communication and sharing of knowledge among scientists from different disciplines and from different countries, who formerly worked in relative isolation, in order to build a new synthesis from an essential interdisciplinary baseline to bridge effectively among research approaches across Europe.