



## **Fluvial biogeomorphology in the Anthropocene: Managing rivers and managing landscapes.**

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Biogeomorphology considers the many, and often complex, interactions between ecological and geomorphological processes. The concept of the Anthropocene deserves greater attention by scientists working on biogeomorphology, as will be demonstrated in this talk though a focus on fluvial environments. Rivers and river systems have been the subject of long-term human interference and management across the world, often in the form of direct manipulation of biogeomorphic interactions. Up to the present three broadly-defined phases of the Anthropocene can be identified – the Palaeoanthropocene, the Industrial Revolution and the Great Acceleration. Each of these broad phases of the Anthropocene has different implications for fluvial biogeomorphology and river management. The nature and dynamics of tufa-depositing systems provide good examples of the differing Anthropocene situations and will be focused on in this talk. We may now be entering a fourth phase of the Anthropocene called 'Earth system stewardship'. In terms of better understanding and managing the biogeomorphic interactions within rivers in such a phase, an improved conceptualisation of the Anthropocene and the complex web of interactions between human, ecological and geomorphological processes is needed.