

General Theme 6

6.8

Human activity is now the dominant cause of most contemporary environmental change, with profound effects on mass transfers on land and on the record of biogeochemical signatures in sediment archives. On a first hand, anthropogenic activities have caused rapid change in erosion, transfer and storage of sediment along the hydrological pathways, altering the lateral exports of nutrients, carbon (C) or contaminants, influencing terrestrial and aquatic ecosystems, influencing turnover times of C on land and, ultimately, long-term changes in climate. On a second hand, sediment archives have the potential to records and document human-driven changes, which can improve our understanding of human-environment interactions. This session explores both aspects and invites contributions on the transformation of sediment systems during the Anthropocene and on the general topics related to the analysis of anthropogenic signatures in the sediment records. More specifically, the theme aims to attract studies contributing to the description of the timing, amplitude and spatial extend of the human impacts on the environment and how they may compromise ecosystems. We welcome contributions that discuss the impacts of changes in land cover/uses, hydrological pathways, dam settlements, and use well-established or innovative proxies of human impacts such as DNA. Large-scale syntheses are also warmly welcome as they can be a massive undertaking and often require a large collaborative effort. Building larger collaborations may be needed for developing new analytical approaches and for merging data in databases and we welcome contributions of this nature as well.