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Defining Colluvium and Alluvium: An Experiment to Discuss and Consolidate Perspectives

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Describing Earth materials with a shared terminology facilitates international collaboration because it reduces misunderstandings about the connections being made between observations and interpretations. The terms colluvium and alluvium are widely used, but their meanings vary almost as widely. Definitions for these terms can include connections to different geomorphic processes, landscape positions, or hydrology. In soil science, colluvium can be particularly influential as it is recognized in some national classification systems (e.g. France, Germany) as diagnostic material for "Colluvisols." Clarifying the meaning and diagnostic criteria of colluvium versus alluvium is especially important today because some definitions connect colluvium directly to erosion processes that are wide-spread and enhanced by anthropogenic activities. For example, the German "kolluvium" is pronounced the same as colluvium, but describes deposits at the base of hillslopes produced by water and/or tillage erosion. This contrasts with the common North American definition of colluvium describing materials transported primarily by gravity (i.e. mass movement). This poster raises awareness of the issue by illustrating the variety of published definitions for both colluvium and alluvium. Then it asks viewers to engage in the conversation by completing a survey either on paper or later online. The viewers are also invited to join the discussion on the same question, posed on the ResearchGate website (https://www.researchgate.net/post/How do you define colluvium).