



Sediment delivery from the Lattenbach catchment by debris floods and debris flows

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The catchment area of the Lattenbach in Austria has a long history of mass movement events. Debris flows, documented since 1907, pose a threat to buildings in the village of Pians. To contribute to the collection of documented flow events in Alpine catchments and to improve our understanding of torrential processes within the Lattenbach catchment, a monitoring system has been installed 2002. Since then three major events of sediment transport of similar magnitude were recorded. In this study we describe our measurements and interpret the events based on rainfall and flow depth data, video recordings, and on geomorphic evidence in the field. We identify two of these events as debris flows and one as debris flood. Our observations may help to improve our understanding of torrential processes and hazards in an Eastern Alpine environment.