



Bed load transport in a proglacial river (Fagge, Gepatschferner, Tyrol)

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Large amounts of solid load are transported in proglacial streams. This material originates mainly from bedrock eroding glaciers (supra-, en- and subglacial stores). While suspended sediment dynamics in glacier-fed streams are quite well investigated, data on the bed load component of the total load are still rare. Due to the ongoing glacier melt down in high mountain areas it is highly debated whether more solid load (higher sediment availability) or less solid load (trapping effect of proglacial lakes) is transported in the near future. We present measurements of fine to medium sized bed load and discharge recordings from a proglacial river responding to the dramatic glacier retreat in the last years. The measurements have been carried out in cross sections close to the glacier snout of the Gepatschferner in Tyrol (Austria). First results show the more or less continuous transport of coarse sand and fine to medium sized gravel even during low flows in the ablation period. The investigations are part of the DFG/FWF joint project "PROSA" (<http://www.ku.de/mgf/geographie/prosa>).