



Discharge and sediment transport of a small braiding river inferred from seismic survey.

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Hydraulics and sediment transport in the *torrent de St Pierre*, a small braiding river (French Alps) were measured for 10 days during the peak flow season (summer). Discharge was continuously monitored by a pressure sensor (diver). Sediment transport (suspended and bedload) was estimated along river section at regular time interval. For the seismic monitoring, we deployed 2 broadband and 2 short period seismometers in the braiding plain. The analysis of the high-frequency content of the seismic records shows that the river discharge can be precisely inferred from the signal envelop. The dynamics of the river being very rapid, channel shifts took place during the survey. This effect can be seen in the data under the form of a vertical shift in the plot of the energy versus discharge.