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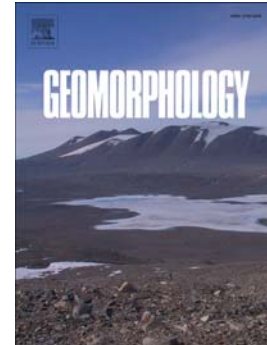
Rules of the road: A qualitative and quantitative synthesis of large wood transport through drainage networks

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Rules of the road: A qualitative and quantitative synthesis of large wood transport through drainage networks

Natalie Kramer*, Ellen Wohl^{1,**}

Abstract

To effectively manage wood in rivers, we need a better understanding of wood mobility within river networks. Here, we review primarily field-based (and some numerical) studies of wood transport. We distinguish small, medium, large, and great rivers based on wood piece dimensions relative to channel and flow dimensions and dominant controls on wood transport. We suggest further identification and designation of wood transport regimes as a useful way to characterize spatial-temporal network heterogeneity and to conceptualize the primary controls on wood mobility in diverse river segments. We draw analogies between wood and bedload transport, including distinguishing Eulerian and Lagrangian approaches, exploring transport capacity, and quantifying thresholds of wood mobility. We identify mobility envelopes for remobilization of wood with relation to increasing peak discharges, stream size, and dimensionless log lengths. Wood transport in natural channels ex-

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