

Area

(2006) 38.2, 165–174

ISSN 0004-0894 © The Authors.

Journal compilation © Royal Geographical Society (with The Institute of British Geographers)
2006

Landscape connectivity: the geographic basis of geomorphic applications

Gary Brierley*, Kirstie Fryirs and Vikrant Jain****

*School of Geography and Environmental Science, University of Auckland, Private Bag 92019,
Auckland, New Zealand

Email: g.brierley@auckland.ac.nz

**Department of Physical Geography, Macquarie University, North Ryde, NSW 2109, Australia

Revised manuscript received 26 October 2005

Abstract

Geographic concerns for spatial relationships lie at the heart of geomorphic applications in environmental management. The way in which landscape compartments fit together in a catchment influences the operation of biophysical fluxes, and hence the ways in which disturbance responses are mediated over time. These relationships reflect the connectivity of the landscape. A nested hierarchical framework that emphasizes differing forms of (dis)connectivity in catchments is proposed. This field-based geomorphic tool can be used to ground the application of modelling techniques in analysis of catchment scale biophysical fluxes.

Key words:

geomorphology, connectivity, disconnectivity, spatial relations, modelling, biophysical template, environmental management