



I am starting to suspect those green things might be affecting my pretty landscape: ecogeomorphic feedbacks from the coast to the hills (Arne Richter Award for Outstanding Young Scientists Lecture)

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One metaphor for ecology and landscapes is that of an ecologic play being performed within a geomorphic theatre. As we learn more about how organisms interact with landscape, this metaphor seems appropriate only if the theatre in question is disassembled and reconstructed by the actors between acts. The productivity, biomass and spatial distribution of biotic agents may be controlled by landscape properties but they also strongly exert a control sediment transport and deposition processes, which together with tectonics act to sculpt the Earth's surface. Here I examine the coupled evolution of ecologic and geomorphic systems with examples from both coastal and upland environments. I also highlight the exciting proliferation of LiDAR data (light detection and ranging) which can detect both canopy structure and the Earth's surface at unprecedented detail, and show the potential for this expanding catalogue of data to forge an ever closer union between the fields of ecology and Earth surface processes.