

SEMINAR

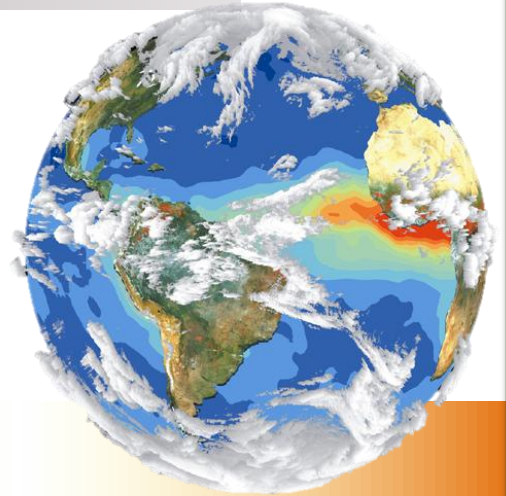
Department of Biological Sciences



Friday, 8 June 2012 | 4pm | LT20

Hosted by Professor Paul Matsudaira

Climate change in the tropics: the end of the world as we know it?



a special talk by Richard Corlett

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Until recently, many tropical biologists believed that significant climate change was too remote a concern to worry about in comparison with the more urgent threats from deforestation and overexploitation. This attitude has been largely replaced in the last few years by a widespread recognition that climate change is already happening in the tropics at a rate that is relevant to current and planned conservation action, as well as human livelihoods. However, the tropical literature on the biological impacts of anthropogenic climate change does not currently capture the full range of uncertainties inherent in the prediction process. In reality, the range of plausible tropical futures projected from realistic greenhouse gas scenarios and the best available climate models includes potentially catastrophic changes in tropical climates within the next few decades. Conversely, the simplifications inherent in current approaches to modeling impacts may tend to exaggerate the effects of climate change on tropical biodiversity by underestimating the capacities of tropical species for acclimation and rapid evolution, and ignoring the existence of refugia within heterogeneous landscapes. Combining the physical and biological uncertainties, it is clear that there is a potential for large under- or over-estimation of the risks. I will outline possible futures, consider the prospects for reducing the uncertainties, and discuss specifically tropical options for climate change adaptation and mitigation.