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**The extinction debt: a mathematical artifact or biological realism?**

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As we know, habitat destruction is the major cause of species extinctions, and dominant species are considered to be free of this threat since they are the most abundant species. However, it was shown by David Tilman that they were the most susceptible to eventual extinction, which has so far not been observed in nature and is lack of support of any evolutionary theory. In this talk, I'll show that this result is not robust to two relaxations of the assumptions. The prediction of the metapopulation model does not hold if the mortality rate is assumed to be different among species and there is a stochastic variation in metapopulation dynamics.