

SPACE USE AND TIME LAGS IN REWILDING APPLICATIONS

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Two key questions in biodiversity conservation relate to how we manage land/sea-scapes for wildlife and at what point in time we can expect to observe the consequences of our actions. Mathematically, these questions relate to (multiple) steady states and transient dynamics. I will consider two theoretical and inferential examples under each of these questions. I will first examine how the use of suburban and agroforestry ecosystems can be optimised for biodiversity gains. I will then explore frameworks for the analysis of delayed impacts in large-scale bird community data and very fine scale grazer rewilding experiments. The convergence of ideas from dynamical systems and modern statistical inference is a very exciting development in quantitative ecology. Thorny rewilding applications are one of the top areas where such theoretical advances can gain real traction and produce tangible impact.