

Early warning system to save species

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Puerto Rican parrot 5

Managers of wildlife conservation programmes are being helped by a method commonly encountered in industrial and service industries.

Dr Simon Black, of Kent's Durrell Institute of Conservation and Ecology (DICE), has developed a number of techniques that are more commonly

seen in business settings to encourage improvements in [conservation management](#).

In his latest publication in the *International Journal of Ecology*, Dr Black argues that new insight into ecological problems is needed to enable practitioners to devise how best to manage and improve situations for endangered species.

His paper proposes one tool, the 'systems behaviour chart', which [conservation](#) managers can use to focus their decisions, goals and interventions on the purpose of [conservation work](#), in order to act faster and with greater impact to save species.

For example, systems behaviour charts would have prompted straightforward landscape management to halt the terminal decline of a ground squirrel population in the US since signals in existing species' [population data](#) would have been identified three years ahead of the population's eventual demise.

The effectiveness of current approaches can also be examined, for example increases in Florida manatee deaths due to collisions with watercraft are shown not to be an inevitable outcome from the increasing numbers of boats found on waterways, since the charts indicate that mortality levels can be significantly stabilised with sensible waterway traffic measures.

Conversely, as an early warning system, the charts indicate that while the successful recovery of the Puerto Rican parrot has been notable, the wild population still exhibits wide fluctuations in numbers and the species' survival could be threatened by a single extreme tropical storm, so suitable contingencies need to be identified.

More information: *International Journal of Ecology*,

www.hindawi.com/journals/ijecol/2015/787925/

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