

New model may improve population management of species facing local extinction

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By developing a new model, researchers have provided the first detailed mortality estimates for male African lions. A comparison of two populations, including the one of Cecil, exposed the signature that human impact leaves on male lion mortality.

The model can be used to project future population size and structure for population management measures for a variety of species that may be facing local extinction.

"Our method solves the problem of missing death data due to migration. It widens the range of species for which conservation scientists can estimate [mortality](#)," said Dr. Julia Barthold, lead author of a *Journal of Applied Ecology* study that describes and tests the model.

The article is part of a Demography Beyond the Population Special Feature that is a unique large-scale ecological collaboration including articles in all six British Ecological Society journals. Its goal is to highlight the potential of demography to connect across scales and inform a broad range of questions in ecology and evolution.

More information: Julia A. Barthold et al. Bayesian estimates of male and female African lion mortality for future use in population management, *Journal of Applied Ecology* (2016). [DOI: 10.1111/1365-2664.12594](#)

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