**Predicting how populations decline to extinction**

**Collen B**, McRae L, Deinet S, De Palma A, Carranza T, Loh J, Cooper N & Baillie JEM. (2011) *Philosophical Transactions of the Royal Society of London B*366: 2577-2586

‘Predicting how populations decline to extinction’ was part of a special issue covering the theme of ‘Global diversity of mammals’, which Ben was invited to contribute to. The concept of the paper was to explore which factors predict population declines in mammals. This analysis built upon existing research describing predictors of extinction risk among mammals. These studies found that certain biological traits, such as large body size, were associated with a greater risk of extinction. The focus of this paper asked whether those same predictors of extinction risk predisposed decline in local populations.

Ben was really keen to tackle this. Not only did it lead on nicely from a lot of his previous work on mammals, but it was a key development in analysing a large data set of population trends in a novel way. Our results suggested that environmental factors, rather than biological ones, could better predict mammal population declines. This was an interesting and slightly unexpected result, although I think Ben had suspicions that this might be the case. Discovering this improved our understanding of mammal populations: although the species type is relevant, species location is more so when predicting population declines. Given that most conservation work happens at the local scale, greater insight into these population trends is significant.

Ben was my boss at ZSL where I worked with him on monitoring global biodiversity trends. He was lead author on this paper and I was involved in the analysis and writing, as second. The author list for this paper included another colleague and two interns from our group who had worked on the data at different times. It would have been reasonably fair to give credit to the interns in the acknowledgements; the fact that he made them co-authors exemplifies how generously Ben worked with people around him. I always found that he was very willing to share these sorts of opportunities voluntarily.

I remember valuing the learning experience that I gained from this paper even though I was slightly daunted about it initially. Ben always seemed quietly confident and quick to bring levity when it was needed, even describing the first draft as “Some basically random thoughts which I rashly labelled ‘plan’ when I wrote them”.

After publication, this paper led the way for further analysis using population trend data. We have used a similar modelling technique to tackle other research questions: for example, analysing the increase in numbers of birds and mammals across Europe and assessing the impact of protected areas on species. The paper has been cited over 70 times to date, and an article appeared in Wired magazine describing the findings, along with a quote from Ben. Like a lot of Ben’s later work, this research provided deeper insight into species at risk, which is vital for effective conservation.

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