



University of
BRISTOL

Adam J M Devenish
Bristol Life Sciences Building
University of Bristol
24 Tyndall Avenue
Woodland Road
Bristol BS8 1TQ
ajm.devenish@bris.ac.uk

24th February 2015

Dear Sir or Madam

Varley-Gradwell Traveling Fellowship in Insect Ecology 2014/15

I am writing to confirm that I have completed my three-month field research in South Africa. During this time I was able to achieve most of my targets, however, as with work of this nature there was some revision to the initial planned protocol. Despite some setbacks linked to late seeding time of desired plant species, I am certain that I have collected enough data to enable me to complete two of my desired four PhD chapters, with the outcome of at least two publications.

At this stage I am still processing and compiling the data into a suitable format for analysis, but there are some clear preliminary findings. The effects of the invasive Argentine ant (*Linepithema humile*) are clearly seen in the native ant assemblages. In areas where the Argentine ant is present, we have identified a total of seven ant species, in contrast to non-invaded areas where there are upwards of 22. Though this picture might change in time, as I still have well over 160 pitfall traps and 500 baiting samples to sort.

Despite this early uncertainty with regard to ant assemblage, the effects on seed-dispersal are very clear. In areas where Argentine ants are present, seed removal is considerably lower for native seeds. However, there appears to be no significant difference in seed removal between invaded and non-invaded regions for at least three highly invasive *Acacia* plant species.

I am currently waiting for the 49 collected plant species seeds to arrive at the Millennium Seed Bank from our partners at the South African National Biodiversity Institute. Upon arrival all seeds will undergo morph-metric and chemical analysis. Which in addition to laboratory behavioural assays will allow us to piece together and hopefully understand the complex picture being observed in the wild.

Once again I would like to thank the University of Oxford for funding this work and I shall be aiming to present my findings at the Royal Entomological Society Conference (Ento '15) this September. At this stage I have several ant samples that I shall be pinning and was wondering if the University of Oxford would be interested in any of them for their collection.

Yours Sincerely,

A handwritten signature in black ink, appearing to read 'Adam J M Devenish', written over a horizontal line.

Adam J M Devenish