



Alistair Baxter

NERC PhD Studentship: Understanding the factors associated with declines of an alpine specialist bird species in Scotland

With:

Steven Ewing, Jerry Wilson – RSPB

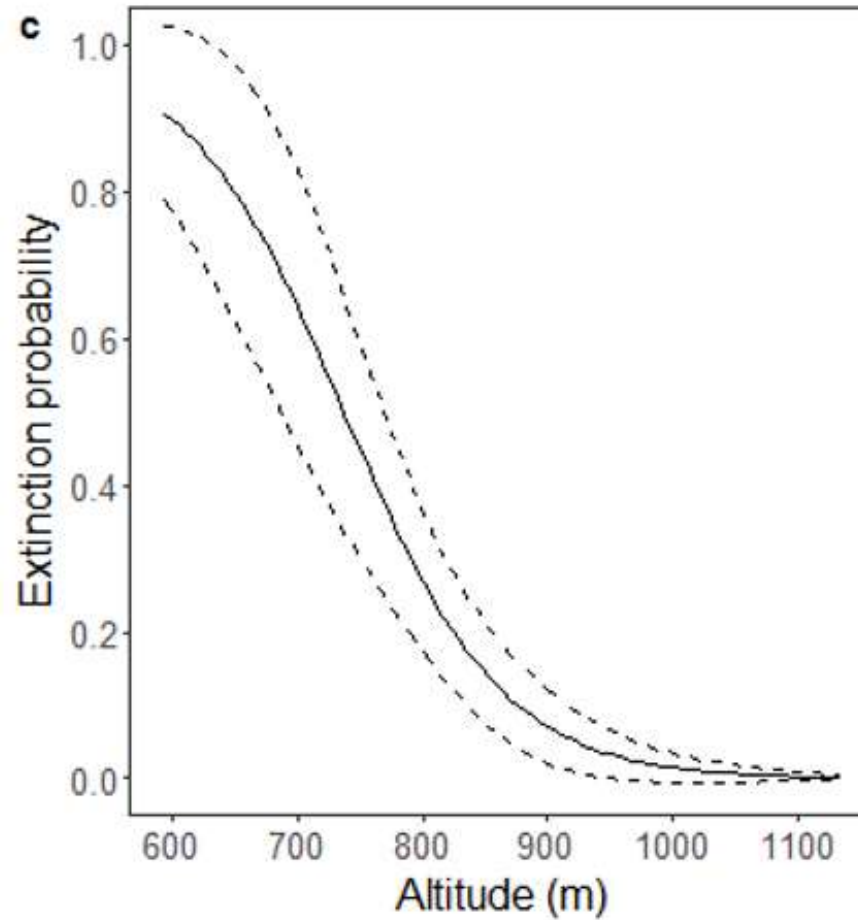
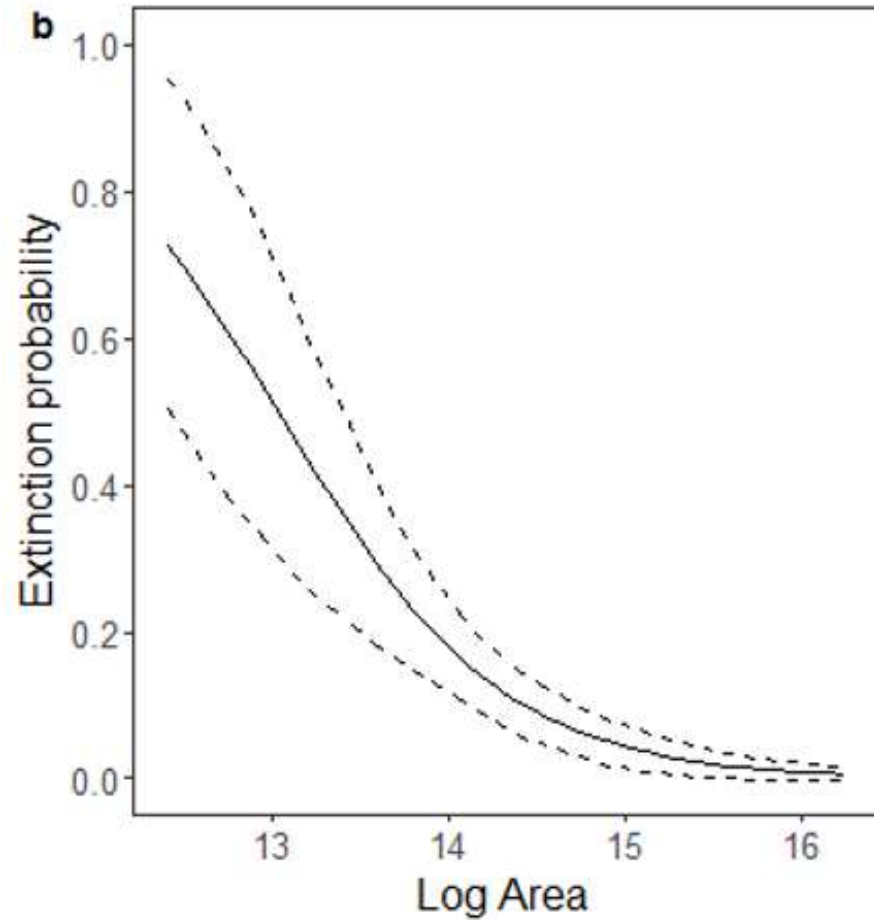
Des Thompson – SNH

Phil Whitfield – Natural Research, Banchory

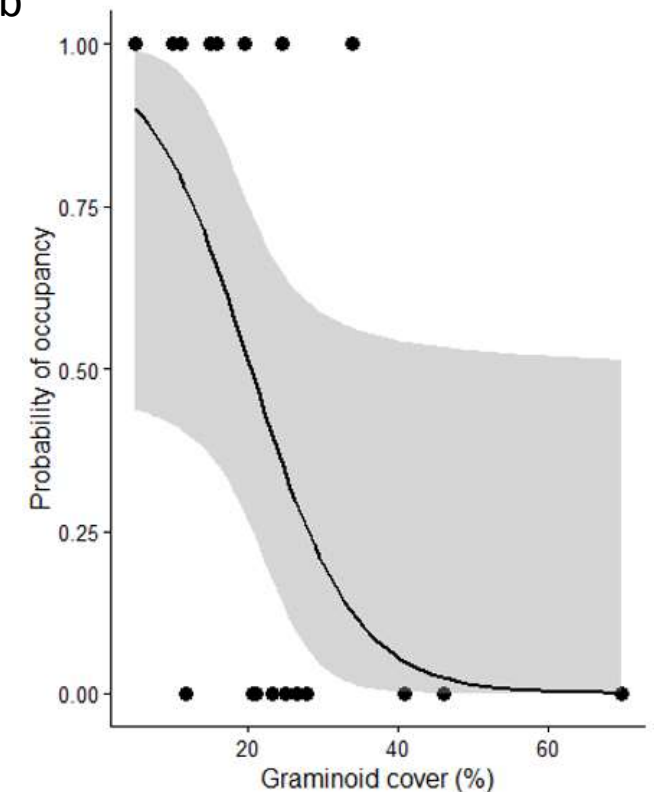
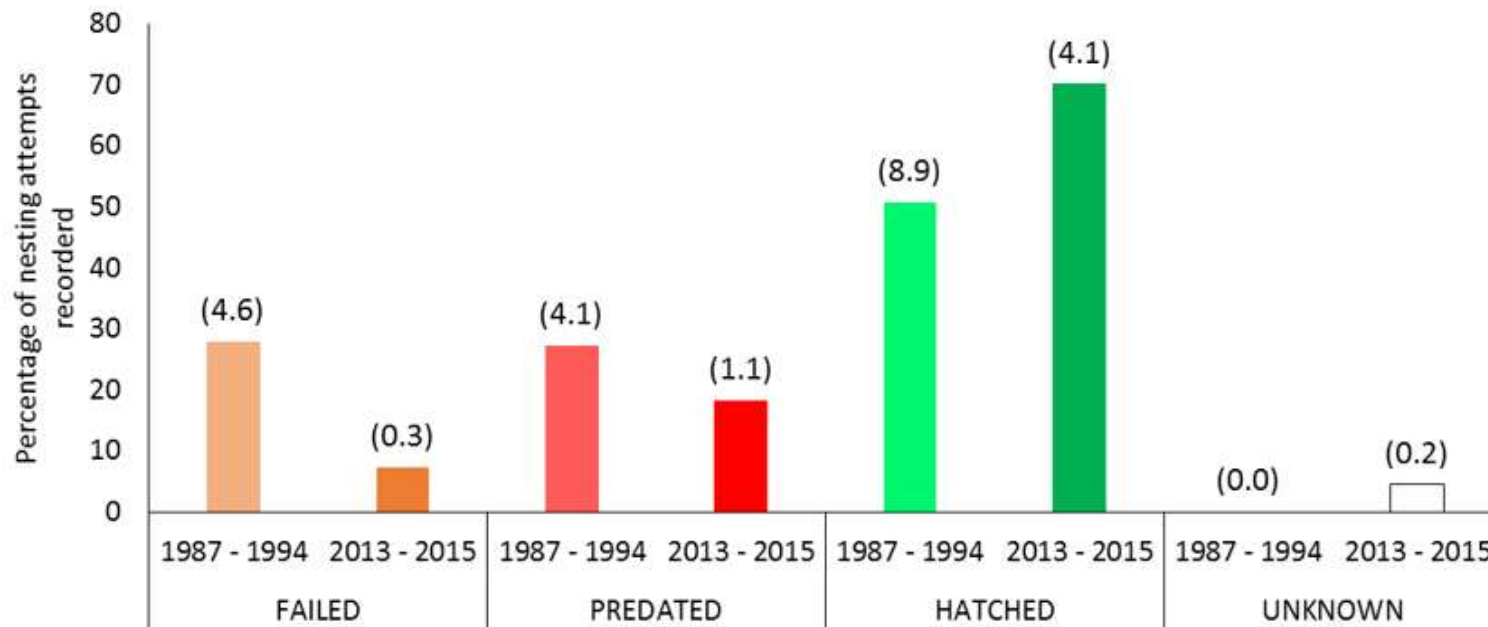
René van der Wal – University of Aberdeen



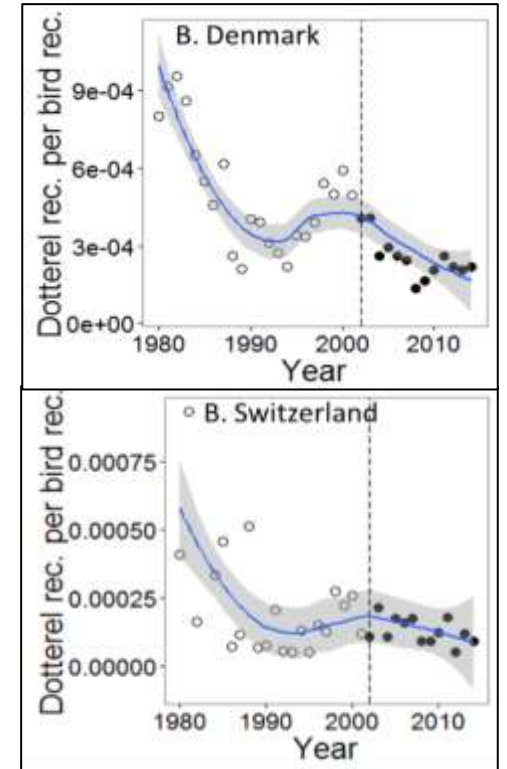
- Uphill shift in distribution and contracted their breeding range within Scotland to their historic core
- Abundance substantially greater at generally snow-rich sites when these were relatively snow-free



- Uphill shift in distribution and contracted their breeding range within Scotland to their historic core
- Abundance substantially greater at generally snow-rich sites when these were relatively snow-free
- Despite an increased presence of Ravens in the alpine zone, dramatic declines in the abundance of *Tipula montana* and suboptimal graminoid cover at many lower elevation sites, and shifts to breeding earlier, little change in breeding success between 1987-2011
- Other crane fly species were however richly abundant at some alpine sites and may now be used by Dotterel. Earlier snow melt may explain trends towards earlier breeding and increased likelihood of b



- Uphill shift in distribution and contracted their breeding range within Scotland to their historic core
- Abundance substantially greater at generally snow-rich sites when these were relatively snow-free
- Despite an increased presence of Ravens in the alpine zone, dramatic declines in the abundance of *Tipula montana* and suboptimal graminoid cover at many lower elevation sites and shifts to breeding earlier, little change in breeding success between 1987-2011
- Other crane-fly species were however richly abundant at some alpine sites and may now be used by Dotterel. Earlier snow melt may explain trends towards earlier breeding and increased likelihood of breeding highest elevations



- Appraisal of Dotterel sighting from a range of Western European regions revealed that the Scottish declines may be partly a result of declines elsewhere in the species range, particularly during the latter part of the 20th Century
- Declines in Scotland could be conceptualised as part of a broader pattern of declines or distributional shifts away from the westernmost part of their range.
- **Thus, the uphill shift within Scotland to the areas of preferred habitat may be first and foremost due to insufficient numbers of breeding birds to occupy less favoured habitat at lower elevations.**