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POSTER

Status of breeding Eurasian Dotterel *Charadrius morinellus* in Britain in 2011

DANIEL HAYHOW¹, MARK EATON¹, STEVEN EWING¹, ANDY STANBURY¹, ANDY DOUSE² & PHIL WHITFIELD³

¹ RSPB Centre for Conservation Science, UK

² Scottish Natural Heritage, UK

³ Natural Research, UK

* Email: daniel.hayhow@rspb.org.uk

The 2011 RSPB/SNH Montane Survey revealed a 43% decline in the number of Eurasian Dotterel breeding in the UK since the 1999 survey. The estimated population of 423 breeding males (95% confidence limits 279–644) were found predominantly in the Eastern Highlands and largely absent from previously occupied sites in the North and West Highlands. No Dotterel were found in Wales or northern England. There has been a significant shift in the altitude of occupied Dotterel sites between 1987 and 2011, with higher sites being occupied in the later survey.

Aims

Our aims were to estimate the number of breeding Dotterel in the UK and in Scottish regions, and to compare these with the relevant estimates from previous national surveys. In addition, we aimed to look for changes in mean altitude of occupied sites.

Methods

Surveys were carried out on a stratified random sample of montane sites and on all Special Protection Areas/Sites of Special Scientific Interest (for which Dotterel are a designating feature) as a full census between mid-June and mid-July, repeating methods used in national surveys in 1987/88 and 1999. Population estimates and 95% confidence intervals (CIs) were calculated by extrapolation and bootstrapping, and randomization tests were used to assess change between survey periods.

Results

The figures below illustrate the decrease in site occupancy and population size in Dotterel breeding in Britain since the 1980s. Overall the national population has declined from 981 (95% CI 873–1101) in the 1987/88 survey to 423 (95% CI 279–644), a significant 43% decline since 1999 when the population was estimated to be 747 (95% CI 592–1357).

The mean altitude of occupied Dotterel sites differed significantly between the surveys, suggesting that altitudinal range occupied by Dotterel has changed as the population has declined.

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Conclusions

Dotterel declined in the UK between 1999 and 2011 by over 40%. The estimated population of 423 breeding males were found predominantly in the Eastern Highlands and largely absent from previously occupied sites in the North and West Highlands. Further research is ongoing to understand the drivers of this population decline, particularly into the impacts of climate change on montane habitats and effects of habitat changes on Dotterel breeding in Scotland.