
Examining the use of corncrake *Crex crex* early cover plots for the conservation of the great yellow bumblebee *Bombus distinguendus* on North Uist

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This study looked at the land management currently in place for the conservation of the great yellow bumblebee (*Bombus distinguendus*) on the island of North Uist in the Outer Hebrides. The RSPB, a lead partner on the *B. distinguendus* Biodiversity Action Plan (BAP), manage this land by means of an agri-environment scheme in which crofters are paid to fence off areas of inbye agricultural land from grazing. This is primarily to create early cover for corncrake (*Crex crex*) breeding and has been co-opted to enhance the habitat currently available to *B. distinguendus* and to increase this habitat with a view towards range expansion. This was reasoned as follows: firstly, both species have suffered from the loss of herb rich grasslands, and secondly they share historical and current ranges in Britain. These 'corncrake corners' were hypothesised to provide areas of extended forage for *B. distinguendus* both at the start and the end of the flying season, and also to provide areas of forage in agricultural inbye land where flowering plants are noticeably absent.

Surveys of floral diversity and foraging bumblebee abundance were carried out on plots at four different sites on North Uist on land managed for corncrakes and *B. distinguendus*, control plots agricultural inbye land not included in the scheme and machair plots to answer the following questions:

- 1) Do the corners provide suitable forage for *B. distinguendus*, and therefore is there the potential for *B. distinguendus* to make use of these areas?
- 2) Is there any evidence that *B. distinguendus* currently forage within the corncrake corners?

Variation in densities of *B. distinguendus* between plots was related to the forage availability within the plot. Corncrake corners were dominated by plants such as *Iris*, *Phragmites*, nettles and umbellifers, which do not provide forage for *B. distinguendus*. Only machair plots had a significantly higher density of *B. distinguendus* than agricultural inbye land. Therefore it was concluded that the most suitable form of land

management for the conservation of *B. distinguendus* on agricultural land in the Outer Hebrides is the promotion of 'traditional' methods of machair management.