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POSTER

Associations between new native woodland creation and population change in Scottish Black Grouse *Tetrao tetrix*

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Woodland expansion in the UK is likely to be strongly favoured in marginal upland areas. Consequently, work is urgently required to determine the impacts on priority upland birds. One of these species, the Black Grouse *Tetrao tetrix*, is listed in the UK as a bird of High Conservation Concern. Previous work found that the decline in numbers of lekking males between 1990 and 2002, in one of the core Scottish strongholds, was highly correlated with forest maturation/canopy closure (Pearce-Higgins *et al.* 2007). Subsequently, the population underwent a remarkable recovery over the following 10 years; however, correlates of this increase, potentially related to the creation of new native woodland (NNW), have not been examined. Replicating the analytical approach used by Pearce-Higgins *et al.* (2007), we re-analysed a satellite image of a 700-km² area in Perthshire, while including areas of NNWs which accounted for the fourth most common habitat (5.5%) in the study area. Both the occurrence and the size of Black Grouse leks were positively associated with NNW plots, but remained strongly negatively associated with mature commercial plantation. Changes in lek size before and after the creation of NNW plots were related to a weak quadratic effect of woodland area. We discuss management actions for NNW plots, particularly in relation to the size, maturation and field layer processes within NNWs.

Reference

Pearce-Higgins, J.W., Grant, M.C., Robinson, M.C. & Haysom, S.L. 2007. The role of forest maturation in causing the decline of Black Grouse *Tetrao tetrix*. *Ibis* **149**: 143–155.

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