

Pearce-Higgins, J.W., L. Stephen, R.H.W. Langston, and J.A. Bright. 2008. Assessing the cumulative impacts of wind farms on peatland birds: a case study of golden plover *Pluvialis apricaria* in Scotland. *Mires and Peat* 4:1-3.

Summary: The distribution of golden plover across Scotland was modelled using land cover and management variables, and used to highlight the spatial association between golden plover abundance and current and proposed wind farm developments. Overlap was greatest in three biogeographical zones (the Western Isles, the Western Central Belt and the Borders Hills) and was estimated at ca. 5% of the biogeographical population in each case. New field data were used to predict the effects of wind farm development on golden plover populations, employing a conservative analytical approach to detect statistically significant wind farm related effects. The results provide evidence of significant avoidance of wind turbines by breeding golden plovers to a distance of at least 200 metres. Furthermore, wind farm sites appear to support lower densities of golden plover than predicted by the distribution model for sites without wind farms. Therefore, there is evidence for negative effects of wind farm developments on golden plover, and we suggest strategies to reduce any potential conflict between the need to promote wind energy and the need to maintain golden plover populations.