

# Ski tourism stressing capercaillie

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Ski tourism is raising stress levels among capercaillie, which could harm the birds' fitness and ability to breed successfully, ecologists have found. Writing in the *British Ecological Society's Journal of Applied Ecology*, researchers warn that forests should be kept free from tourism infrastructure if they are inhabited by capercaillie - a species whose numbers are declining markedly across central Europe.

The study by ecologists from Switzerland, Germany and Austria used a new technique to assess the impact of ski tourism on capercaillie. Working in the Southern Black Forest in Germany, they collected the birds' droppings before and after the start of the ski season, and analysed them for levels of the breakdown products of the stress hormone corticosterone. They found that levels of the breakdown products of the stress hormone were significantly higher in birds living in areas with moderate or high levels of ski tourism.

One of the study's authors, Dr Lukas Jenni of the Swiss Ornithological Institute says: "Ski tourism affects both habitat use and stress hormone levels in capercaillie, and this could adversely affect their body condition and overall fitness. Because of this, we recommend that managers keep forests inhabited by capercaillie free from tourism infrastructure and retain undisturbed forest patches within skiing areas."

According to Dr Jenni: "The level of winter sport activity and the introduction of new outdoor sports such as snow shoeing has increased drastically during the last decade and affects essential habitats or retreats for a number of rare or shy species such as black grouse and chamois.

Human recreation activities in winter could be especially harmful to capercaillie because of the birds' reliance on a diet of low-quality conifer needles. Body condition at the end of winter has been shown to affect reproduction success of the related rock ptarmigan.”

Source: Wiley-Blackwell

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