

## **Weather to disperse? Evidence that climatic conditions influence vertebrate dispersal.**

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1. Dispersal is regarded as critical to the stability of existing populations and the spread of invading species, but empirical data on the effect of travelling conditions during the transfer phase are rare. We present evidence that both timing and distance of ex-natal dispersal in buzzards (*Buteo buteo*) are strongly affected by weather.
2. Dispersal was recorded more often when the wind changed to a more southerly direction from the more common westerly winds, and when minimum temperatures were lower. The effect of wind direction was greatest in the winter and minimum temperature was most important in the autumn. Poor weather did not appear to initiate dispersal.
3. Dispersal distance was most strongly correlated with maximum temperature during dispersal and wind direction in the following five-day period. Combined with the sex of the buzzard these three variables accounted for 60 % of the variation in dispersal distance.
4. These results are important for conservationists who manage species recovery programs and wildlife managers who model biological invasions.