How birds weather the weather: avian migration in the mid-latitudes

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Publication date
2012

Citation for published version (APA):
Appendix D: Results of simulation model predicting avian altitude distributions

Simulated nightly altitude distributions of $pBd$, from our comparison with the analysis of Bruderer et al. (1995), are shown with associated measured distributions of $pBd$ and $Tw$ for spring and autumn for altitudes between 0.2 and 4 km in bins of 200 m. On the right of each pair are measured distributions of $pBd$. Altitude distributions of $Tw$ (orange line; ms$^{-1}$) are shown superimposed on top of the measured $pBd$ distributions. The range of $Tw$ values are indicated along the top of the x-axis and a vertical gray line indicates the transition point from negative to positive $Tw$ values. Simulated distributions of $pBd$ are shown on the left, with a black line indicating the weighted average distribution of $pBd$ for that season. The color of the measured and predicted distributions of $pBd$ indicate the measured intensity of migration on a given night from blue (least intense) through green to red (most intense). Altitude bins in the simulated distribution shown in transparent gray do not have a predicted value due to missing predictor variables. The numeric value given in parentheses next to the label “Measured” indicates the percentage of nights from that season with less-intense migration. The first value next to the label “Simulated” indicates the Spearman’s $\rho$ correlation between the measured and simulated distributions of $pBd$ and the second value indicates the proportion of variability in the measured distribution of $pBd$ explained by the simulated distribution of $pBd$. The title of each plot indicates the night (at sunset) during which the conditions were measured. Note that Appendix D is only available in digital version of this thesis at [http://dare.uva.nl/record/421932](http://dare.uva.nl/record/421932).