

# Nocturnal flight-calling behaviour predicts vulnerability to artificial light in migratory birds



## Data from: Nocturnal flight-calling behaviour predicts vulnerability to artificial light in migratory birds

Winger, Benjamin M., University of Michigan-Ann Arbor  
 Weeks, Brian C., University of Michigan-Ann Arbor  
 Farnsworth, Andrew, Cornell University  
 Jones, Andrew W., Cleveland Museum of Natural History  
 Hennen, Mary, Field Museum of Natural History  
 Willard, David E., Field Museum of Natural History  
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### Abstract

Understanding interactions between biota and the built environment is increasingly important as human modification of the landscape expands in extent and intensity. For migratory birds, collisions with lighted structures are a major cause of mortality, but the mechanisms behind these collisions are poorly understood. Using 40 years of collision records of passerine birds, we investigated the importance of species' behavioral ecologies in predicting rates of building collisions during nocturnal migration through Chicago, IL and Cleveland, OH, USA. We found that use of nocturnal flight calls is an important predictor of collision risk in nocturnally migrating passerine birds. Species that produce flight calls during nocturnal migration collided with buildings more than expected given their local abundance, whereas those that do not use such communication collided much less frequently. Our results suggest that a stronger attraction response to artificial light at night in species that produce flight calls may mediate these differences in collision rates. Nocturnal flight calls likely evolved to facilitate collective decision-making during navigation, but this same social behavior may now exacerbate vulnerability to a widespread anthropogenic disturbance. Our results also suggest that social behavior during migration may reflect poorly-understood differences in navigational mechanisms across lineages of birds.

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**Metrics**

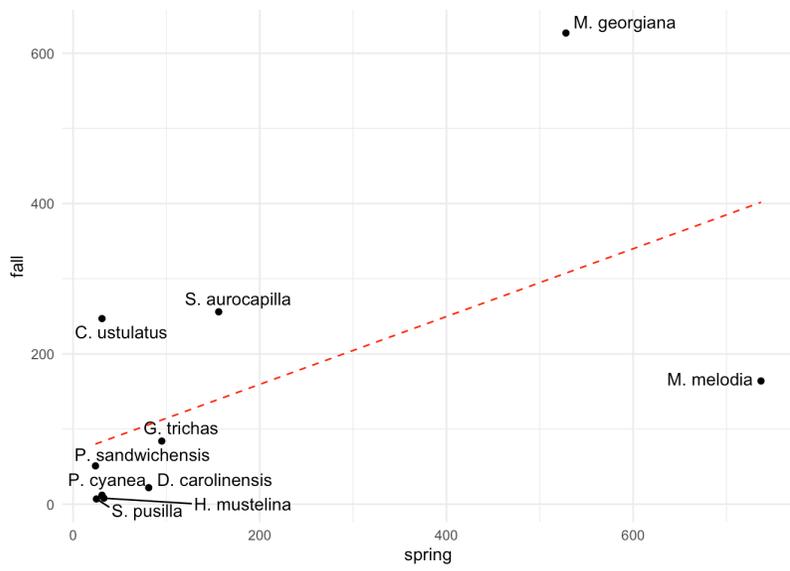
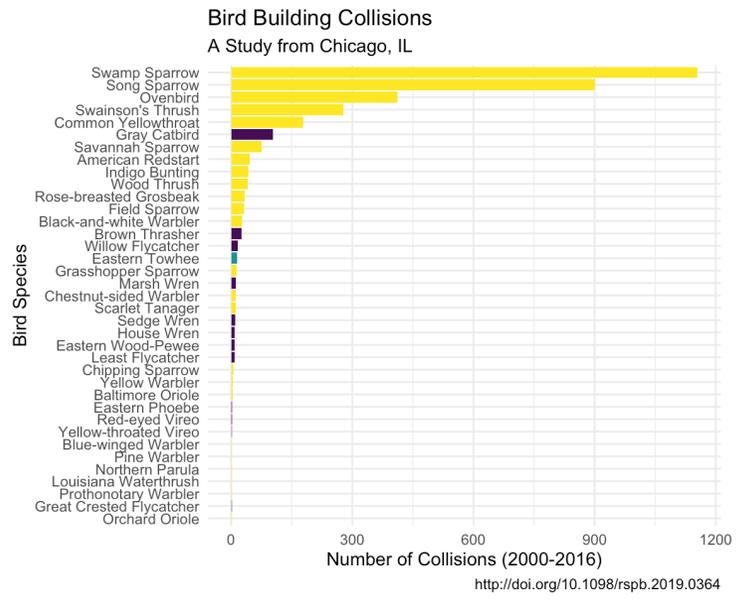
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## Data Source Website

The data are available from the DRYAD data repository as an easily downloadable zip file containing three csv files. These could be read into R using `read_csv` without any modifications.

If your data was more complex, you might use more space to describe your work loading it into R.

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## Data Visualization

These are plots that I took from the exam. The right one should have included proper axis labels and a title, whereas the on the left doesn't need to repeat the citation information that is included again below.