

Study finds migration strategy predicts stopover ecology in shorebirds

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As anyone who has ever taken a long car trip knows, frequent rest and refueling stops are needed to make it to the destination. For migratory birds, this is the case as well, only they fuel up on food during their rest stops and put on large amounts of fat in the process. However, not all bird species have the same migration strategy, that is, in terms of their stopping times and eating rates. Some birds stop and feed for weeks at a time, and some do so for brief periods of one or two days. Now, a new study from online journal *Animal Migration*, has uncovered one of the reasons for this difference, and it has to do with the length of the next flight.

In the article, published now fully in open access by De Gruyter Open, Jessica Henkel and Caz Taylor, from Tulane University in New Orleans, LA, studied three [species](#) of migratory shorebirds (semipalmated sandpipers, western sandpipers, and dunlins), which all naturally differ in migration strategy during their spring migration in North America. One makes a series of short flights with multiple stops in between, one has the opposite behavior, with one or two very long flights northward, and only stops once or twice, and the third species is somewhere in the middle.

By capturing birds from all three species at sites along the northern Gulf of Mexico, and measuring their stopover times and refueling rates, the authors found that the long-distance migrants tended to stay longer at the refueling sites, and they gained weight faster than the short-distance birds. The birds that only make short flights tended to have shorter visits

at the same sites, and did not gain as much weight.

According to Dr. Frank Moore, an expert in [bird migration](#) and stopover biology from the University of Southern Mississippi, "the authors demonstrate rather convincingly that migration strategies reflect a complex interplay between time and condition - key metrics that determine the success of a [migration](#) event."

The authors point out in the study that their results can help to inform conservation strategies for these [birds](#) as well. "Studies like this one are a great example of the type of cutting-edge work that is being done in this field. Shorebird stopover sites throughout the migratory flyway are slowly dwindling due to habitat losses, and this information can help to predict the impact of such losses to different [bird species](#) and develop conservation plans to mitigate these impacts" says Andy Davis, Editor-in-Chief of *Animal Migration*.

Provided by De Gruyter Open

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