



## Do birds from one population group stay together through their migration to the tropics and back?

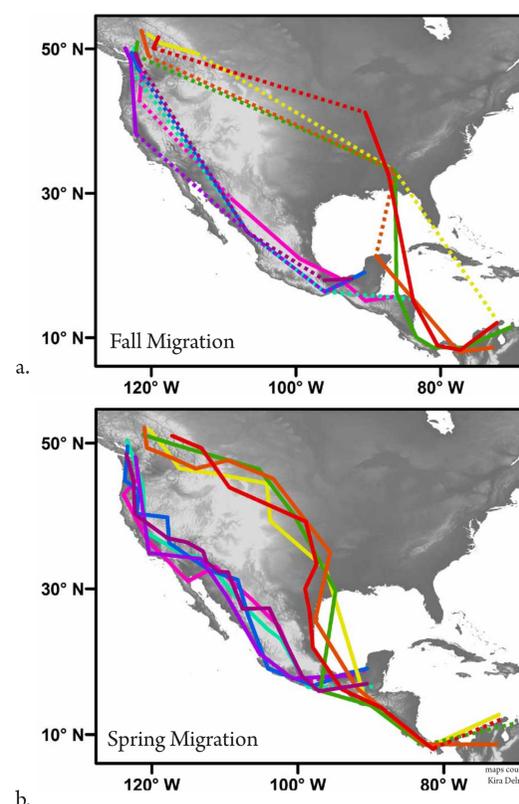
Have you ever wanted to follow the birds south for the winter? Kira Delmore knows where they go. She tracked two different groups of Swainson's thrushes—one coastal and one inland group—to see where they go and how they get there.

Birds were captured in mist nets and fitted with a very small *geolocator*; a device containing a light sensor, worn like a backpack around the bird's legs. Sunrise and sunset were recorded every day and used to calculate day length and time of local midday. These variables were then used to estimate latitude and longitude. Recapturing the birds and downloading the information from the geolocators showed where the birds had been through their migration.

Coastal birds followed the western coast of North America to Mexico, Guatemala, and Honduras. Inland birds crossed the Rocky Mountains to winter in Colombia and Venezuela. These separate routes and separate destinations could be an important factor in keeping the two populations genetically distinct, and could influence the evolution of new species over time.

Kira's work also shows that migration has a genetic component. Birds that were *hybrids*, with one parent from each group, were more likely to take paths in between that of the coastal and inland routes. A hybrid bird may also take a more inland route south, then a more coastal route back north, showing that the two stages of migration may be influenced independently.

By knowing exactly when and where birds go through their migration, we are better able to protect habitat to ensure their survival. Through new technology, researchers like Kira are beginning to unlock the secrets of this remarkable journey.



During the fall migration southward (a), coastal birds (in blue, pink, and purple) followed a coastal route, while inland birds (in green, red, orange, and yellow) flew east of the Rocky Mountains and crossed the Gulf of Mexico.

In the spring migration northward (b), coastal birds followed a similar return route, while inland birds took a new path around the Gulf of Mexico.

The geolocators used to track the birds (c) were so small, they weighed less than four per cent of the body weight of a Swainson's thrush (d).

