

Migration and mass change of *Calidris fuscicollis* in North and South America¹

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White-rumped Sandpipers *Calidris fuscicollis* migrate between Canadian breeding areas and wintering areas in Patagonia, one of the longest animal migrations in the Western Hemisphere. Migrating *C. fuscicollis* employ both long-distance, non-stop and short-distance, multiple-stop flights. Southbound migrants fly over the ocean after fattening at Atlantic coast staging areas in eastern Canada, mostly located north of 46°N. Landfall is in north-eastern South America, with principal locations along the coasts of the Guianas. The migrants then move gradually south-east along the coasts of the Guianas and north-eastern Brazil before turning inland on a multiple-flight, trans-Amazonian course, where frequent stops are evidently made on sand-bars and river banks that are available owing to seasonally low water levels. There is no evidence of fattening prior to these flights. The subsequent route once again takes advantage of coastal habitats between southern Brazil (Rio Grande do Sul) and Argentina, where peak numbers occur between late October and early February.

Northward migration routes from Patagonia are evidently similar to the southward routes but, instead of being accomplished in a series of short flights with stops on river banks and sand-bars, are accomplished in rapid, non-stop flights following pre-migratory fattening periods at southern Atlantic staging areas. Because the rivers tend to be high at this season, little habitat is available in the interior. Major staging areas are unknown during northward migration in northern South America, the Caribbean Basin or the North American Atlantic and Gulf coasts. A major staging area is identified in the Great Plains of the United States, where birds fatten before their last remaining flight to Nearctic breeding zones. Similar staging sites probably exist in the southern prairies of Saskatchewan.

The information on the routes used and the extreme dependence of high proportions of the species' population on pre-migratory fattening at strategic sites indicate that *C. fuscicollis* is a species whose well-being is closely linked to the well-being of its migration sites.

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