

Featherweight songbird is a long-distance champ

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Handout photo from NASA shows a sunset over the Arctic. A tiny songbird weighing just two tablespoons of sugar migrates from the Arctic to Africa and back, a distance of up to 29,000 kilometres, scientists reported on Wednesday.

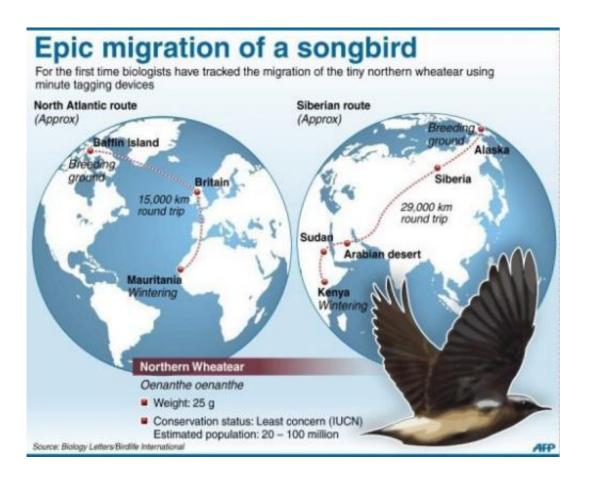
A tiny songbird weighing just two tablespoons of sugar migrates from the Arctic to Africa and back, a distance of up to 29,000 kilometres (18,000 miles), scientists reported on Wednesday.

The size of an undernourished sparrow, the northern wheatear (Oenanthe oenanthe) tips the scales at just 25 grammes (0.9 of an ounces).



But <u>biologists</u> who tagged the tawny-and-white insectivore were stunned at its flight endurance.

They attached minute geolocators, each weighing just 1.2 grammes (0.04 of an ounce) to the legs of 46 wheatears in Alaska and on <u>Baffin Island</u> in northeastern Canada.



Graphic on the epic migration routes of the northtern wheateater from the Arctic to Africa, according to a tracking study published Wednesday in the journal Biology Letters.

The Alaskan birds spent the winter in Africa before returning back home, a journey of about 14,500 kms (9,000 miles) each way, in which



they flew on average 290 kms (181 miles) a day.

They travelled over Siberia and across the Arabian desert, heading to Sudan, Uganda and Kenya, a trip that took about 91 days on the outward trip but 55 days for the return leg.

A tagged bird from Baffin Island flew over the North Atlantic, landed in Britain, travelled southwards across <u>continental Europe</u>, the Mediterranean and Sahara to winter on the coast of Mauritania, <u>West</u> <u>Africa</u>, taking 26 days out and 55 days back for a trip of about 7,500 kms (4,700 miles).

"They are incredible migratory journeys, particularly for a bird this size," said Ryan Norris of the University of Guelph in Ontario.

"Think of something smaller than a robin but a little larger than a finch raising young in the Arctic tundra and then a few months later foraging for food in Africa for the winter."

The study appears on Wednesday in *Biology Letters*, a journal published by the Royal Society, Britain's de-facto academy of sciences.

Birds with larger wingspans such as the <u>cuckoo</u> and <u>albatross</u> are famous for their transcontinental migrations, but this study provides incontrovertible evidence that a songbird can do the same, say the scientists.

"Scaled for body size, this is one of the longest round-trip migratory journey of any bird in the world and raises questions about how a bird of this size is able to successfully undertake such physically demanding journeys twice a year, particularly for inexperienced juveniles migrating on their own."



More information: Franz Bairlein, D. Ryan Norris, Rolf Nagel, Marc Bulte, Christian C. Voigt, James W. Fox, David J. T. Hussell and Heiko Schmaljohann, Cross-hemisphere migration of a 25 g songbird, Biology Letters, published 15 February 2012, doi: 10.1098/rsbl.2011.1223

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