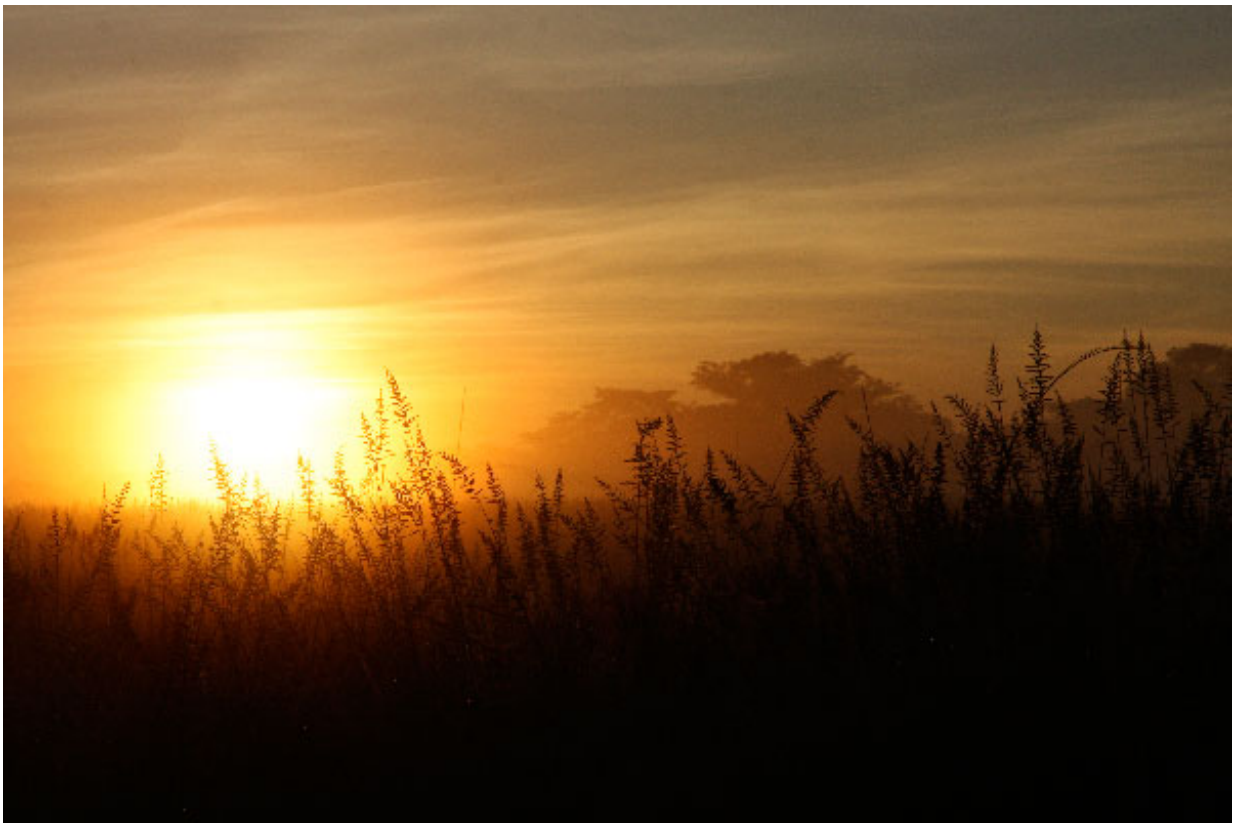


Why do migratory birds sing on their tropical wintering grounds?

February 5 2016, by Marjorie C. Sorensen, Claire N. Spottiswoode, And Susanne Jenni-Eiermann



Great reed warbler (*Acrocephalus arundinaceus*) winter field site, Choma, Zambia. Credit: Jason Boyce/Birding Ecotours

The first notes of bird song signal the arrival of spring as well as the

beginning of mate attraction season, and for many songbird species males with the most elaborate songs do best when it comes to attracting females. But why do many migratory songbirds sing during the winter, when they are thousands of kilometers away from their breeding grounds and the prospect of attracting a mate? This was the long-unanswered question tackled by Marjorie Sorensen, Susanne Jenni-Eiermann, and Claire Spottiswoode.

To answer this question, the researchers test three hypotheses to explain why [winter singing](#) might benefit long-distance [migratory songbirds](#). First, birds may sing to defend winter feeding territories; second, males may sing during winter to improve the quality of their songs; and third, high testosterone levels during breeding may linger over the winter months and promote singing as a byproduct.

To test these hypotheses, the scientists combine a field study of wintering great reed warblers (*Acrocephalus arundinaceus*) in Zambia and a comparison across all songbird species that breed in the Palearctic and migrate to sub-Saharan Africa. All the collected evidence points towards great reed warblers singing in winter to improve their [song](#) quality, and across species those with the strongest sexual selection for song quality sang most intensely in Africa. This suggests that males with the most to gain from singing complex songs during breeding sing most often in Africa for the purpose of song improvement. This study sheds light on this perplexing behavior and the far-reaching effects of sexual selection throughout the annual cycle.

More information: Marjorie C. Sorensen et al. Why Do Migratory Birds Sing on Their Tropical Wintering Grounds?, *The American Naturalist* (2016). [DOI: 10.1086/684681](https://doi.org/10.1086/684681)

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