



Media release: BARN SWALLOW MIGRATION PATTERNS ON THE MOVE

Issued by BirdLife South Africa (BLSA) and the South African National Biodiversity Institute (SANBI)

Swallows, delicate birds which breed in Europe and migrate to Africa for the northern winter, have been the subject of lyrical folklore in many cultures of South Africa, as well as the nickname for Europeans who spend the cold northern months in southern Africa. A new paper in the top Royal Society journal, "*Proceedings of the Royal Society B*," looks in detail at how the timing of migration in three regions of South Africa is changing with the climate.

Barn Swallows (*Hirundo rustica*) breeding in Europe have shown well-documented responses to climate change there, mainly by arriving earlier after their African migration, to coincide with the earlier springs that are a feature of climate change. Yet it has not been known what's happening on their non-breeding grounds in Africa, where swallows undergo critical life-cycle events such as moult and refueling after breeding. Do swallows leave their African non-breeding grounds earlier, fly faster, or perhaps not fly as far south as they did previously?

The new study in *Proceedings* uses a novel source of data from two innovative citizen-science projects, the Southern African Bird Atlas Projects 1 (1987-1991) and 2 (2007-present), to show that Barn Swallows certainly do leave earlier from those parts of their South African non-breeding grounds where they used to stay longest. They did not advance their departure, however, from areas in which they stay for shorter periods, which could mean that they are constrained from doing so.

Dr Res Altwegg, population ecologist at the South African National Biodiversity Institute (SANBI) and lead author of the paper, says "Shifts in arrival of migratory birds at their breeding grounds are among the most noticeable effects of climate change, but almost nothing has been known about the phenology (timing of life history events) on non-breeding grounds." By contrast to a wide array of strong studies in the northern hemisphere on climate change impacts on birds and other biodiversity, little has been known until now of how climate change is affecting vulnerable species in Africa.

Other coauthors of the paper include Kristin Broms, a student from the University of Washington, Dr Birgit Erni of the Animal Demography Unit (ADU) and Department of Statistical Sciences at the University of Cape Town (UCT), with which Res Altwegg is also associated, Dr Phoebe Barnard and Dr Guy Midgley of SANBI, and Professor Les Underhill, director of the ADU.

The Barn Swallow is the 2011 "Bird of the Year" for the major South African conservation NGO, BirdLife South Africa, which has been promoting this species in a climate change context all year.

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