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# Trees for life: how birds and people profit



## Birds on the African Eurasian Flyway

Migration is one of the natural wonders on our planet, with 20% of all known bird species making regular seasonal movements. Many travel thousands of miles between their breeding places and their wintering grounds. But globally, more than 40% of migratory species are declining and nearly 200 are classified as threatened.<sup>1</sup> They face habitat loss and other threats in their breeding and wintering grounds, but on top of that their long journeys can be perilous: they battle bad weather, illegal hunting, collisions with infrastructure and the loss of critical stop-over sites to rest and feed. Along the African Eurasian Flyway, the Sahara is one of the major challenges for migratory landbirds. Tiny birds like the

chiffchaff or common redstart cross it twice a year. The Sahel, the semi-arid ecozone just South of the Sahara is a crucial area for their survival, because it's the first place where they can rest and feed.

### Research outcomes

Researchers undertook to start filling the huge knowledge gaps on migratory landbirds in West Africa. From 2007 to 2015, they conducted a survey of unprecedented size where they counted birds in over 300 000 trees in Senegal, Mauritania, Mali and Burkina Faso.<sup>2</sup> Birds were found to be highly selective in their tree choice: no migratory birds were found in 69% of the tree species. Bird densities were higher in thorny trees, in trees with berries (such as *Salvadora persica*) and near flood-



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Common Redstart

<sup>1</sup> <http://www.birdlife.org/worldwide/programmes/migratory-birds>

<sup>2</sup> Leo Zwarts, Rob G. Bijlsma, Jan van der Kamp, Marten Sikkema & Eddy Wymenga (2015) Moreau's paradox reversed, or why insectivorous birds reach high densities in savanna trees, *Ardea* 103

plains and other wetlands. Most migratory landbirds were – maybe counterintuitively – found in the driest parts of the Sahel in the savanna (woodland and shrubland) landscapes up to the 800 mm rain belt.

The researchers discovered that important tree species for the survival of migratory landbirds are: *Salvadora persica*, *Acacia kirkii*, *Faidherbia albida*, *Acacia nilotica*, *Acacia tortilis* and *Balanites aegyptiaca*. Also important are *Acacia senegal*, *Euphorbia balsamifera*, *Acacia seyal* and *Ziziphus mauritiana*.

In the wetter zones with more than 800 mm rain the few birds present were almost only found in *Faidherbia albida* and *Acacia nilotica*.

### Bird-friendly tree species also benefit people

People benefit greatly from increased tree cover and diversity near their homes and fields<sup>3</sup>: for food and nutrition, improving soil and hydrology. Looking at the list of bird-friendly tree species, many of those have specific benefits for people. For example, *Faidherbia* is widely favoured by farmers for its soil improvement properties and ability to provide shade and fodder. *Balanites* nuts make a good oil, that generates extra income. *Acacia* species deliver gum Arabic, a very valuable resin. *Salvadora* fruits are eaten and the twigs have been used for centuries as toothbrush. Healthy bird biodiversity can furthermore provide positive benefits including pest control, and bird populations can act as a sentinel of sustainable land use.

### What can we do: hands-on?

Many governments, developmental partners, nature conservation organisations and farmers work on landscape restoration, tree planting and other re-greening efforts in the Sahel region. If these actors would prioritise the planting and regeneration of bird-friendly tree species this would upgrade the biodiversity and livelihood outcomes of their work. A good choice of tree species is therefore a simple measure, with great potential impacts!

Choosing the right bird-friendly trees for our re-greening efforts should always be based on local people's preferences and local growth conditions.



*Faidherbia albida*

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Tree research

© Eddy Wymenga

The challenge in the protection of populations of migratory landbirds is that they do not flock together in defined nature areas, they are widespread in the landscape. Therefore we need many actors to join the flock and start using the bird-friendly trees throughout Sahelian landscapes.

### What can we do: policy frameworks?

Migratory bird species are protected under the Convention on Migratory Species (CMS), which adopted an action plan for landbirds in the African Eurasian Flyway in 2014.<sup>4</sup> To deliver this action plan, we need other policy initiatives and institutes to join in and to take biodiversity into account when working on responsible land use in West Africa. Initiatives such as the Bonn Challenge, Forest and Landscape Restoration Mechanism and the Great Green Wall, policy instruments such as the Rio Conventions (on climate (UNFCCC), biodiversity (CBD) and land degradation (UNCCD)) and international institutions are therefore crucial actors for the protection of migratory landbirds.

### Contact

We invite you to contact us to find out more about the work of the BirdLife Partnership in this sphere, and move forwards together for people and birds in West Africa.

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<sup>3</sup> Bhaskar Vira, Christoph Wildburger & Stephanie Mansourian (eds.) (2015) Forests, Trees and Landscapes for Food Security and Nutrition. A Global Assessment Report. IUFRO World Series Volume 33.

<sup>4</sup> [http://www.cms.int/sites/default/files/document/cop11\\_Doc\\_23\\_1\\_4\\_Rev1\\_Landbirds\\_AP\\_E.pdf](http://www.cms.int/sites/default/files/document/cop11_Doc_23_1_4_Rev1_Landbirds_AP_E.pdf)