

Europe-bound migratory passerines, heat-struck in Niger BEFORE they cross the Sahara

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with
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Common Whitethroat, Common Redstart, Garden Warbler, Nightingale, and others: eagerly awaited arrivals from sub-Saharan Africa in European spring, whose numbers are decreasing. The decreases have been explained by decreases in rainfall in the Sahel, on the southern edge of the Sahara. But as a birder living in the Sahel, I have noticed that that is by no means the whole story.

I live with my parents in Mainé-Soroa (13.21° N 12.03° E) in south-east Niger, close to the border with Nigeria and not far from Lake Chad. For the past twelve years I have been doing primary school and highschool by correspondence. I have also birded a lot in the bush around Mainé. September, when young palearctic passerines cross the Sahara for their first time, is the end of the rainy season in this part of the world. The seasonal ponds are still full of water and the thickets around them, the densest local vegetation, are still green (Fig. 1, taken on 3 October 2010). Almost all deciduous trees and shrubs still have their leaves. The grass and other annual vegetation is also still green and full of insects. There are plenty of seeds, too. It is a great environment for small birds that need to recuperate after just having crossed the Sahara, on the way to their winter quarters.

When the birds head north again, on the way to their breeding grounds, it is a different story. April is more than six months into the dry season. The ponds and their thickets have dried up and many of the trees and shrubs have lost their leaves. The grass and crop residues have almost all been eaten by animals or collected for other uses, many invertebrates are dormant, and what seeds are left are mostly buried in the soil. See Fig.2, taken in the same spot as Fig. 1 but on 31 March 2010. The situation is similar all over the Sahel, from Senegal on the Atlantic Ocean to Ethiopia and Eritrea on the Red Sea

What is more, in September-October, although temperatures may peak at 40° C, the largest part of the day and night it is quite pleasant. In March-April, however, it is already 32° C by 8h00 in the morning, and it is frequently more than 45° C during the hottest part of the day. In contrast to what is like in 'autumn', for birds returning north in 'spring' the Sahel is pretty much an extension of the Sahara: hot, dusty, with little to eat or drink and with little shelter. Many birds are forced to look for what they need in towns. There they are easy prey for children and cats.

These seasonal differences are also apparent in our garden in Mainé. During the south-bound migration I can observe migratory passerines only from a distance, as they forage in *A. tortilis* trees in the bush. During the north-bound migration, however, they come in droves to our garden, to drink from the bird bowl and to hide under the plants and car. Many of them are so exhausted that I can simply pick them up or catch them with my hands. I put them in a box out of harm's way, for release when it is a bit less hot later in the day. This happens especially with European warblers but also with resident birds like Cut-throats. Others such as Yellow Wagtails often die. See Fig. 3 to Fig. 8. In addition to the birds pictured we have also had in our garden heat-struck European migrants like Whinchats, Subalpine Warblers, Common Whitethroats, Common Redstarts and Nightingales. And residents like Abyssinian Rollers, Red-Cheeked Cordon-Bleu, Little Weavers, Senegal Firefinches, Rufous Scrub Robins, Grey-headed Sparrows, and Dark Chanting Goshawks. I suppose that what I do is the local version of winter feeding in Great Britain. Except that in southern Niger, which is of similar size to Great Britain, there are perhaps only a few dozen people doing this. I am pretty confident that the remaining patches of good quality bushland have a similar function to our garden. But those patches are getting smaller every year because of agricultural expansion.

The preceding should make clear two points. Firstly, what happens in the Sahel every year is important to the birds that migrate between Africa and Europe, our common heritage. It is not only drought years that have an effect. And secondly, sustainable agricultural development in the Sahel, with room for bird conservation, is in the interest for Africans and Europeans alike.



Fig. 1 Landscape near Mainé, Niger, 3 October 2010, just after the rainy season.

Fig. 2 Same landscape, check the trees!, 31 March 2010, six months into the dry season.



Fig. 3 European Golden Oriole come to drink in our garden (18 April 2010)

Fig. 4 Migrant European Turtle Dove and resident Laughing Dove are both thirsty. (18 April 2010)



Fig. 5 Exhausted Garden Warbler that I could pick up in our garden. (23 April 2010)

Fig. 6 Great Reed Warbler that was also too exhausted to fly away. (16 April 2010)



Fig. 7 Wood Warbler seeking shelter in our garden. (14 April 2010)

Fig. 8 Eastern Olivaceous Warbler waiting its turn. (20 April 2010)