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Bird in Focus

The Uncommon Lifestyle of the Superb Starling

This East African species has one of the most complex family lives of any bird

BY DUSTIN R. RUBENSTEIN

The European Starling, *Sturnus vulgaris*, is so abundant in parts of North America, indeed in most of the world, that it is often referred to as the “common” starling. Despite its prevalence throughout the New World, starlings are actually an Old World family consisting of 114 species, and the European Starling is the only species that has managed to thrive in North America. In many parts of Asia and Africa, colorful and ornamented species of starlings are as common as the European Starling is here. One strikingly elegant species is the Superb Starling, *Lamprotornis superbus*. This endemic of East Africa ranges from the wildebeest-covered savannas of the Tanzanian Serengeti to the busy streets of Nairobi, Kenya, all the way to the tip of the Horn of Africa in Somalia. With its glossy blue back and neck, jet black head, sooty breast, and characteristic white neck stripe, this striking bird is hard to miss.

The Superb Starling has one of the most complicated and fascinating lifestyles of any bird species. It is a cooperative breeder, which means more than two individuals care for the young at a nest. Cooperative breeding is rare, occurring in less than 4 percent of all bird species. The typical cooperative breeder lives in small family groups with one breeding pair and offspring

from a previous year, usually males that raise their siblings for a year or two before they try to breed on their own. The Superb Starling, in contrast, lives in large social groups with as many as 30 or more birds, often extended families of parents, step-parents, siblings, aunts, uncles, nieces, and nephews. Within these groups, variable numbers of breeding pairs—usually two to four—build individual nests inside thorn-encased acacia trees. Both males and females may help raise the young of the breeding pairs. Although most of these helpers are aiding their own parents, they often help at multiple nests simultaneously. Even other breeders have been known to help at nests that are not their own. To understand how and why this complex lifestyle evolved, I am using DNA-based techniques in the Lab’s Evolutionary Biology Program to unravel the precise family relationships within these large social groups.

In Kenya, cooperative breeding occurs in numerous species of birds and even some mammals, such as hyenas and wild dogs. We are not really sure why cooperative breeding is so common there, but the answer may have something to do with the East African environment. For the Superb Starling and most of the other Kenyan residents, life is unpredictable. For many months each year the savanna is dry and barren, and the timing and intensity of



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rain are quite variable from year to year. Without helpers to feed nestlings in times of food shortage and to protect them from the ever-present nest predators such as snakes, hawks, and small mammals, most pairs might rarely fledge young. And because groups consist of close relatives, individuals may be more willing to forgo breeding on their own to help raise the offspring of their kin instead.

Superb Starlings have adapted to their harsh climate by living in extended families that allow them to buffer the bad times and thrive in the good ones. So the next time you see a large flock of European Starlings in the spring, remember their African relatives that live in large dynamic family groups. And you might keep an eye out for some of these helpers at the nest, because even our “common” starling adopts a simpler form of cooperative breeding at times. If you are lucky this spring, you might just see a pair of starlings with one or two helpers cooperating to feed nestlings.



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