Breeding Spreos

by L. Gibson
Portland, Oregon

The Superb Starling Spreo superbus is one of several well known and colorful East African starlings. They are easy to feed and fairly easy to raise. This family is more often kept and bred in institutions where the common factor is a spacious aviary. In spite of the above, detailed accounts of breeding and other behavior are pretty thin on the ground. The following are notes on a single pair of Spreos.

A claimed surgically-sexed pair, in apparent good health, was obtained in September and put outside in a sheltered, south-facing aviary built against a sunporch.

Health

Six weeks after the pair was obtained, when cold evenings were beginning to set in, the cock began to sneeze with increasing frequency. Both birds were brought inside where the hen began to sneeze as well. They were treated (with dichlorvos and Ivermectin) for what proved to be highly resistant respiratory mites. In March they were put outside again.

Although earlier examination of the droppings proved negative, in the following October when the birds were with their third family, the hen developed intermittent, yellow-brown diarrhea interspersed with normal droppings.

A microscopic check showed large numbers of Capillaria eggs. This was treated by giving an unmeasured amount of a 100 mg mebendazole tablet (a piece about half the size of a small millet seed), inserted in a mealworm or a mealworm pupa, the latter being easier. The greasy, bilious-looking excreta ceased by the next morning. Three single doses were given on consecutive days, with no more Capillaria eggs being seen thereafter.

How Capillaria suddenly showed up in the hen is a mystery, for the Spreos were always in a roofed and mostly enclosed aviary. Possibly she had immature worms when acquired. A further examination of the cock showed nothing.

Aviary

The aviary measured 28’ x 10’ x 7.5’ high, and was divided into a 20 and an 8 foot section. The Spreos were housed in the larger end next to a pair of European Blackbirds Turdus merula. In the nesting season, a pair of European Goldfinches somewhat reluctantly shared the Spreos’ section.

The aviary was heavily planted and overgrown. For the last brood of the season, most of the plants, mainly rhododendrons and two large bamboos, were removed. It was then more like the Spreo’s natural, open habitat and was more to their liking, for they are not made for dashing into a nearby bush. Spreos have comparatively slow wing beats and like a clear take off and landing space. The birds became much more active in the new space, where previously they just sat about in the thick vegetation. Space, and in particular height, is more conducive to the Spreo’s wellbeing and is no doubt a major factor in successful institutional breedings as compared to small, backyard aviaries.

General Information

When acquired, the hen was the tamer of the two, but after the cock was brought into the kitchen for a few days, he became and remained the more settled. Tameness in East African Starlings is only relative though, and in spite of this they remained secretive about their comings and goings.

They are sensitive to cold (i.e., temperatures in the 40°F range) and the 20 foot enclosure proved insufficient to keep the Spreos active enough to keep warm when raw winter weather set in. A six week old chick that was being put out daily with its parents was really miserable. Eventually the adults, although very fit, began to look miserable too and were brought inside. This was in contrast to little birds such as the Siberian Blue Robins Erithacus cyanus and Japanese Blue and White Flycatchers Cyanoptila cyanus which still looked fine in a smaller aviary. The fact that the latter were migratory contributed to their hardiness.

The Spreos were infrequent bathers, taking only two or three baths a week, and then only in warm weather.

The cock slept on the same yew
branch under the roof for the whole of the nesting season. The hen spent the night in the box until the chicks left, then went nightly to a branch only two feet from the male. Occasionally they were seen to fight quite violently over the same (cock’s) roost. When brought indoors, the hen took to sleeping in a box while the cock roosted on top, just as lovebirds do.

Spreeos cough up pellets and the chicks were noted to do this before they fledged. Only animal material, such as insect wings and legs, was found in the pellets. Undigestible vegetable material, such as grape skins, was passed through the digestive tract in the normal manner.

Single large feathers were cast over at least half the year, even in the nesting period, with the result that the birds never looked like they were molting. Body feathers were shed in bundles over a shorter period.

**Sexing**

Adults can be told apart by the daintier appearance of the hen (see also “Chicks”). They have to be viewed together in a cage for this but, with a little practice, a glance is sufficient. Thereafter, one can usually identify them in the aviary from their appearance and behavior, without looking for any bands.

Also, the male has a very slightly wider white chest band (in the middle) but the birds have to be sitting together in the same position before a comparison can be made. This is because any movement alters the position of the feathers and the band may be covered or uncovered to a degree by the green breast feathers.

The birds have two rows of black spots on the wings and on the cock they were more distinct and larger from the outer edge inward, particularly in the bottom row. The spots of the hen’s lower row were smaller and just the opposite, the inner ones being larger than the outer ones. On the hen’s top row they were indistinct and discontinuous.

These spots can also be partially covered or more exposed, but the above is the normal appearance. If the arrangement holds good for all Spreeos, this will be the easiest way to sex them. The light has to be bright and just right, though, for at certain angles and in the shade the spots can barely be seen at all.
Feeding

Generally easy to feed, the Spreos had one odd habit not seen in other birds — that of going off several foods. They did this with apple, scrambled egg and, oddly, crickets — for at least a few months.

Food dishes were placed inside a shallow basin, for the Spreos were wasteful eaters. Daily staples were chopped bread with peanut butter and margarine ("spread" containing vitamin D) and insectivorous mix/ground dog kibble. They liked Mynah pellets and would likely have eaten chick scratch as well.

Mealworms and pupae were eaten but not the beetles. Expensive waxmoth larvae were relished and also used to feed newly-hatched chicks. The birds ate chopped grapes but only played with other fruit. As noted, they ate apple for some months only. They reluctantly took a few very small earthworms (mostly the cock) and showed little interest in insects from the garden, save for large spiders.

Vocalization

Fairly vocal, the cock began to sing with increased frequency as the weather warmed up. The hen responded occasionally with a toned down version of the same first few bars. The extremely mixed medley is impossible to describe, but it was more or less the same each time, with some variation in the order, except that the opening three or four notes were always the same ones. It was neither attractive nor annoying. The cock has quite a pleasant subsong, sung particularly in the fall.

The birds were never heard to utter a communicative note, as do birds of thick cover. When separated, they often whistled a three note call, repeated twice in rapid succession. Occasionally reduced to two notes, this was used as a general Spreo rallying call. The adults called to each other with a louder, extended version when they were separated and out of sight. When reintroduced, they spent a minute or two cackling loudly in each other's ear, standing on tiptoe and with the neck stretched up fully.

Immature birds answered the above call with their only note — a squawk. This was just a louder version of the same old dog was enough to quiet it for at least a few minutes, while for all that, no courtship behavior whatever was noted. Nesting activity was conducted with as much secrecy as possible, all activity stopping the moment the birds became aware they were being watched. This is likely why no courtship was seen.

However, it was obvious that the nest was being built only by the cock. Three boxes were available and he filled each with dry grass and built a free-standing one for good measure. The hen carefully inspected these, before and after the materials were added. Two of the boxes were "grandfather-clock-on-side" type, one wood, one cardboard, measuring 12" x 7" x 7" each. The hen chose the wooden one for the first clutch and the cardboard one for the other two. All boxes had a three inch entrance to

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facilitate inspection.

The entrance to the cardboard nest faced the window and, for the third clutch, its position was altered slightly so that there was a clear view right into it. Some inside backlighting was thoughtfully provided by the Goldfinches pecking away an upper corner. The other (cardboard) box, a “conventional” kind, one foot square, was ignored, as was the outside nest, built on evergreen branches just under the wooden part of the roof.

The first nest took five days to complete, the others a day less. All the nests were the same, consisting of a crude, roofless tunnel made from long (±1”) dried grass stems. At the very back was a small pad of fluff, mostly mattress stuffing. Cottonwood down was available but only a very little was used, this material apparently being too fine for the Spreos. The Goldfinches, however, built a nest almost entirely from it. A wild European Starling nest in the garden was remarkably similar to that of the Spreos.

Almost every day, through incubation up until the chicks were about to leave, the hen added very small amounts of fluff to the nest and, on one occasion, a dried leaf. This was her only contribution to nestbuilding. The cock took a little fluff on and off as well and continued to add both grass and fluff to all the other boxes. After the second clutch was laid, the cock tore apart the now-empty Goldfinch nest and took a little of the cottonwood down into the nestbox.

Eggs

The eggs are a deep turquoise color with a relatively thick shell. One egg weighed 4.4 g and measured 25 x 17.25 mm. Clutches of five, four and three were laid, the first egg on April 23rd and the last on Oct. 14th. One from the first clutch was infertile, and one from the second clutch died at about a week. During incubation, temperatures ranged from a high of 86°F with the middle clutch to a low of 48°F with the last one. Despite this range, they hatched consistently in an average of 13 days, with the first egg(s) of the larger clutches taking a day longer.

Chicks

The chicks were quite well covered with sparse black down and had white gapes.

The parents almost always collected food together, with the cock usually following the hen to the nest and waiting outside for his turn to feed. When the hen was sitting on the nest, she was practically invisible in the dark interior, save for her eyes. But when the parents were feeding, their white rump was obvious, even in poor light. This made a highly visible sign that one of the adults was attending to the chicks.

The hen fed regularly, but the male was an erratic provider. He waited for three days before taking food to the first two nests, then fed the chicks until they fledged. Then he reversed the procedure by feeding the last lot from day one, but petered out by the third week. Even when the chicks left the box, it was the hen who did most of the feeding.

As with other softbills, the hen took at least twice as much food to the nest as the cock. The most he took at once was two larvae and often only one. The hen, on the other hand, usually took three or four and was seen on two occasions to have her beak hidden under a load of six large crickets. One insect was carefully offered to each chick in turn. The chicks pulled off the crickets like grapes from a bunch.

The food of choice for the first few days was waxmoth larvae. After that, crickets were used almost exclusively, with mealworms being ignored. Some non-live food was fed in the second week, mostly chopped grape.

Male crickets have fearsome mandibles as you’ll know if one has ever bitten you so, for the first nest, the legs and heads were removed. Later it was found that the parents did exactly the same thing, littering the food dish with big legs and heads. The jumping legs were usually cut off to prevent the crickets escaping.

There was a radical change in the diet fed to the last brood. After using crickets for the first two weeks, the parents went off them and never fed or ate them again! Some grasshoppers were put in along with crickets and the birds carefully picked the hoppers out and left the latter. The same experiment was repeated the next day but this time both insects were ignored. Mealworms replaced the crickets and the chicks would eat little else when
they became self-feeding.

The peak intake of food was between the eighth and ninth day, when the adults and three chicks were consuming about 220 large crickets daily — about 89 grams weight, excluding any grapes, etc.

After the chicks’ eyes opened, they always closed them and lined up in the darkest corner of the box, facing the back, when disturbed. They would only beg from the parents — never humans. The first of the wing quills (numbers one to five) broke through on the tenth day, with the rest following the next morning.

The hen brooded the chicks until they left the nest at 21 days, with the younger ones leaving later on the same day at 20. The youngest chicks went back into the box on the first night but thereafter slept out. When a two-month-old chick was reunited with its parents in a large indoor cage, it spent the 40 to 50 nights in a nest-box, accompanied by the hen who also recommended feeding it.

The plumage of the young was a duller edition of the parents and they lacked the white chest band and ivory eyes. The white margins at the corners of the beak were obvious for at least three months.

Chicks slept a lot during the first month out, usually crouching on the perch and drawing down their necks. The head was only occasionally tucked in. They were seen to feed themselves at 32 days but they much preferred to pester their parents for a few more weeks, when the hen did most of the feeding. When begging, they always crouched with drawn in necks and cheeped quite loudly.

When a chick was released into an aviary where only the cock was present, it flew straight to him and opened its beak far wider than the normal, with its head held quite high. This was to show its juvenile white gape to prevent attack, rather than to solicit food. All the while, the adult cackled and whistled excitedly. Afterwards, he barely fed the youngster — usually just one mealworm from each rationed lot. One of the mealworms he proffered was wriggling actively — the first time a live, or at least un参股en, larva was seen to be given to a chick of any species.

When five weeks old, the chicks were seen to emulate the parents’ bathing behavior, preening and shaking out their dry wings. A chick was seen to finally take a bath at seven weeks, but this may have been delayed by the cold weather.

At 50 days, three young birds (two males and a female) weighed 53, 50.7 and 48 grams — the adults weighed 70 g each. The heaviest was always several days more advanced than the other two, in spite of having hatched only one day earlier. The smallest chick was a real baby and continued to be dependent on the parents for a week longer than the others.

The chicks can be sexed at this stage by the noticeably trimmer head and beak of the hens. Though the males have slightly thicker legs, as viewed from the side, the size of the feet can go either way. The sex of a single youngster is difficult to determine.

In spite of frequent and close human contact, the chicks retained the combination of wariness and familiarity that has served the starling family well.