

years ago. This tanager is fond of live food, and all kinds of berries. The male proves rather pugnacious and attacks other tanagers alighting on the feeding table, even the larger *Ramphocelus* and *Thraupis* species.

The Magpie Tanager (*Cissopis leveriana*) is unusual in that it has pure glossy black and white plumage, and a long graduated tail. It is the largest of all tanagers (11 in.).

The male Black-faced Tanager (*Schistochlamys melanopis*) is grey, with an extensive black mask. The female is olive green, somewhat paler below. This tanager belongs to a transital genus between the tanagers and the cardinal finches (Cardinalinae), including saltators, cardinals and certain grosbeaks. This species includes some seed in its diet.

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BREEDING THE BLUE-CROWNED CHLOROPHONIA

Chlorophonia occipitalis

By MISS M. P. GOURLAY (Camberley, Surrey)

Blue-crowned Chlorophonias are outstandingly beautiful, being a brilliant emerald green, with bright blue caps, and rings of a similar blue colour round the back and sides of the neck. The flight and tail feathers end in black tips, while with the hens the green underneath merges into a beige colour towards the tail. The cock bird sports a bright yellow waistcoat and in addition to his blue neck ring he has some dark brown round the front of his neck.

The birds are approximately six to seven inches long. They have no song but chatter away in a most conversational manner interrupted with occasional inelegant squawks. They are extremely energetic, especially in the evening when they fly restlessly from one end of the aviary to the other. I cannot imagine them thriving or being happy in a cage.

Although they only infrequently take a bath in spite of the fact that one is always provided, there is nothing they like more than a heavy

shower—whether from the sky or from a garden hose; and they will invariably manage to hang upside down from a perch in order to get thoroughly soaked.

They are perfectly amiable with other birds and when at first they were sharing an aviary with Avadavats, Zebra Finches, Green and Grey Singing Finches, none of these ever showed the slightest fear of them, although sometimes rather disconcerted by their excited flying activities. Physically they seem very hardy, and provided that they have a heated shed (64°F.) they seem to suffer no ill effects even from being out in the snow.

They take a great interest in their food, and as extras find much enjoyment in tackling the problems of sprays of blackberries, rowans, black currants, wortleberries, cherries and in fact anything that is available. They are very clever and thorough when eating grapes, extracting every morsel of the flesh to leave a perfectly empty skin; the same method also being used to deal with maggots.

Chlorophonias could be described as birds of considerable character and very rewarding for the expense and effort involved in keeping them. My experience with breeding them has been as follows:—

1968. In spring I bought one pair of Blue-crowned Chlorophonias, sold as tanagers. They had only arrived from Mexico the day before, and were in pretty poor shape. After a short time and in greatly improved condition they were put into an outside aviary with a heated shed, already containing the numerous small seed-eaters, and they kept very well all through the winter.

1969. Some time during May the pair nested in an open box in the flight which is partly protected with corrugated plastic sheets. I think they had four eggs which were duly hatched. Despite every attention from the parents the young died within four to five days.

1970. The same thing happened as in the previous year, despite my efforts to provide extra food by breeding fruit flies, of which the birds took no notice whatever. They had their usual diet of every imaginable kind of fruit—banana being their favourite—with maggots and mealworms, the latter not being much liked except in the pupal form. Various artificial insectile food was given them, but they would not touch it. They have always had Abidec and Delrosa in their drinking water, and the parents were in really magnificent condition. I always noticed that as soon as the eggs were hatched the adults became frantic for *something*; for they clung to the gate the moment that I appeared and climbed all over me searching for the missing something, but this I again failed to find, and the babies died.

1971. Undeterred by previous failures my pair again nested in early May and hatched three out of five eggs, and once again they and I nearly went mad trying to find the answer, which resulted in the usual death of the young. I vowed I would never let them breed again, they

were so distressed by the recurring fatalities. Then in the May-June issue of this magazine there appeared an article by Mr. Roles, the assistant curator at Jersey Zoo, recording that although he had managed to breed from a pair of euphonias he had lost some young because he had not been able to keep up a sufficient supply of live spiders.

I knew that tanagers, euphonias and chlorophonias were related, so my immediate reaction was "can this be the clue?". My birds were only too anxious to nest again, so I let them, but reduced the eggs from five to three. From the moment the little birds were hatched the hunt was on, and a daily supply of live spiders was fed to the parents, who regurgitated them to their young. I know it is straining belief when I say that the joy and relief of the parents were absolutely unmistakable. A noble friend and I spent hours each day searching for these elusive and agile creatures which we put into jam jars, these having the only unclimbable surface. Spiders are also very cannibalistic and they must be sorted into different jars, or one ends by having one very large spider. The really large ones can give quite a penetrating nip, and the birds diving into the jars which we held for them became extremely wary as to how they caught hold of them.

In addition the birds had all their other food listed earlier; plus a fruit "mush" made of equal quantities of grated apple, banana, honey, one of the tinned baby foods such as veal, and some of the insectile food which was thereby disguised. It was very hot while the young were in the nest and I used to feed both the hen while brooding, and afterwards the young, with their drink mixture from a dropper, which they quickly learned to appreciate. As the days went by I grew more and more hopeful. After three weeks the young left the nest and turned out to be two hens and a cock, the latter unfortunately dying in November, 1972 from visceral gout, diagnosed on a post mortem at the Wickham Laboratories.

1972. The original pair nested again and laid five eggs, of which I again removed some, three this time, and the remaining two were hatched and the young brought up as in the previous year. They turned out to be a pair. I bought a new cock to introduce new blood. His markings were slightly different, as he had a yellow band across his forehead and his cap was of a slightly mauve shade of blue. This is apparently the Costa Rica and West Panama race, *C. o. callophrys*, sometimes called the Golden-browed Chlorophonia.

1973. The new cock mated with the young hen from 1972, and they brought up two young (three eggs removed). These were doing very well when by some mischance one of them was choked by a piece of wool in the nesting material. Incidentally by this time I had had an addition made to the aviary which the chlorophonias had to themselves except for a pair of Vernal Hanging Parrots. Meanwhile the two sisters from 1971 shared a nest, sitting side by side in a hanging

basket, having mated, I believe, with their father. I am afraid this was more than I could cope with, especially as I had lost most of my best spider sites to builders, so rather sadly I removed the whole nest, finding that some of the eggs were fertile.

The eggs were white, covered with rather faint fawn blotches, and for nest material the birds used mostly dried grass, a few feathers, bits of wool, leaves and hair—the latter mostly pulled from my head! The incubation period is approximately fifteen days, the young emerging from the nest about three weeks after hatching; and the parents continue to feed them for about another two weeks. Then quite suddenly the day comes when the parents are no longer interested in spiders, and as the young will not take them themselves I realise with a sigh of relief that a backbreaking task is over for another season.

The present numbers are as follows—one hen bought 1968, the old cock having died this summer; 1971 two hens from the above pair, (and cock which died 1972); 1972 one hen, one cock from original pair, one cock bought; 1973 one, sex unknown, from 1972 hen and new cock. Total seven, of which five are home-bred over three years.

As described above the Blue-crowned Chlorophonia, *Chlorophonia occipitalis* has been bred by Miss M. P. Gourlay from 1971 onwards. It is believed this may be a first success. Any member or reader knowing of a previous breeding of the species in Great Britain or Northern Ireland is asked to communicate at once with the Secretary, Editor or Assistant Editor.

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