

NOTES ON BREEDING THE BLACK-THROATED LAUGHING THRUSH

By Michael E. Mace (San Diego Wild Animal Park)

Black-throated Laughing Thrushes *Garrulax chinensis* are endemic to Burma, Thailand, Vietnam, Laos, and Hong Kong. Their habitat is secondary growth consisting of thickets, bamboo stands and forest understory below 1,200 m (King et. al., 1975). There are 48 recognized species of *Garrulax* currently listed that can be found in Asia (Howard and Moore, 1991). The Black-throated Laughing Thrush is a monomorphic species.

Upon arrival in the collection, each bird goes through a customary 30-day quarantine period. During this time they are subjected to a few tests to determine their health status. Towards the end of the quarantine a laparoscopy procedure was used as a method to accurately determine the gender of each bird which fortunately proved to be an adult pair.

The Wild Animal Park has kept Black-throated Laughing Thrushes from 1988 until 1992. During this period the birds have been successfully bred in two vastly different styles of aviaries, hatching a total of 15 chicks.

The first breeding occurred in an open air, public walk-through aviary that measured 43 x 33 x 12m. The exhibit was well planted and housed 35 species of birds consisting of 107 specimens. Of this grouping, six other *Garrulax* species were kept with *G. chinensis*. They were Tickell's Laughing Thrush *G. streptians*, White-throated Laughing Thrush *G. albogularis*, White-browed Laughing Thrush *G. sannio*, Yellow-throated Laughing Thrush *G. galbanus*, Red-winged Laughing Thrush *G. formosus*, and Red-tailed Laughing Thrush *G. milnei*. The first four species listed have also successfully produced chicks in this exhibit.

The second aviary measured 6 x 1.2 x 3m and was adequately planted with Purple-leafed Plum *Prunus blireiana*, Podocarpus, *Podocarpus gracilior* and Russian Olive, *Elaeagnus angustifolia*.

The cage mates in this aviary were a pair of Golden-breasted Starling *Cosmopsarus regius* and a pair of Celebes Quail Doves *Gallicolumba tristmata*.

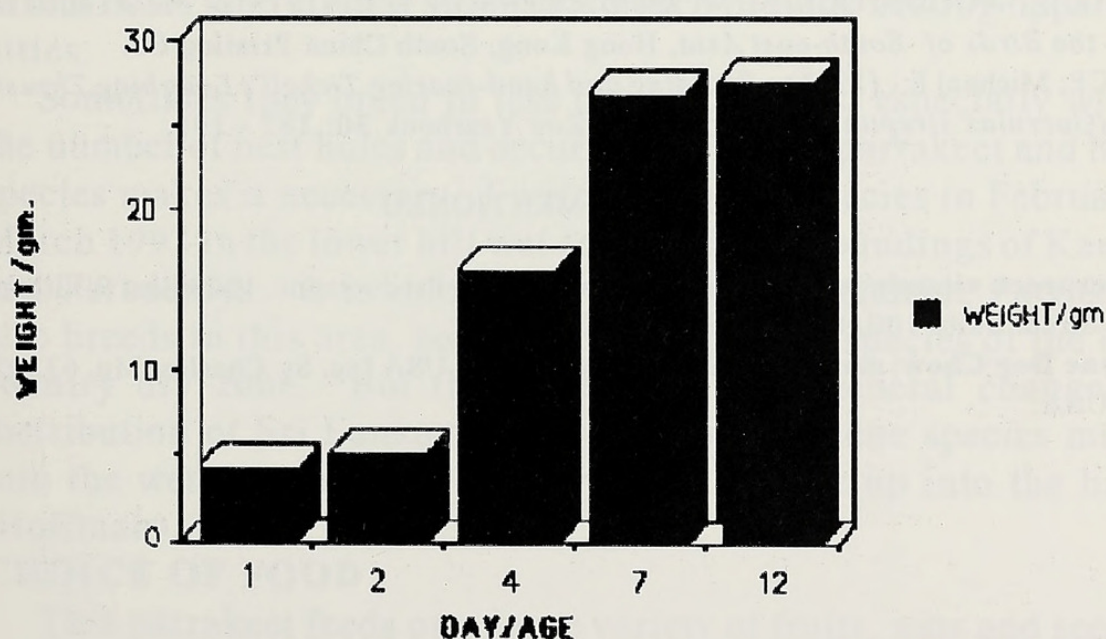
The birds nested in the tallest available plant in this aviary which was the Purple-leafed Plum. One difference in the nesting in this aviary was that the Laughing Thrushes would only build the

nests in a pre-hung wicker basket.

The breeding pair is very secretive when building a nest, and equally reclusive when incubating or brooding. However, they would readily return to a nest if disturbed as was the case when data was collected on *G. streptians* in an earlier study (Mace, 1991).

In the large walk-through aviary, the Black -throated Laughing Thrushes consistently built their own nests in Golden Bamboo *Phyllostachys ourea*. The average height of four nests measured 3.37m from the ground. The size of each nest measured 135mm x 66mm overall. The primary building components for each nest were strips of California Grape *Vitus californica*. The nest cup was lined in a softer material consisting of excelsior fibres of the Quaking Aspen *Populus tremuloides* which was distributed on the ground for the birds to utilize. A completed nest was analysed and found to weigh 43.7g and contained 523 pieces of nest material with the longest fibre measuring 52cm and the median fibres measuring 31cm.

The average clutch consisted of three to four eggs. The eggs are laid every other day and are completely porcelain white in appearance. Eight eggs were measured and the median size was 28.4mm x 18.00mm and weighed 5.8g. at day one. Egg-laying occurred from April until July. The incubation period was 13 days. The male and the female participated in the incubation, commencing with the second egg laid



Data from "Bk. Throated Laughing Thrush"

Upon hatching the nidicolous chicks are cared for by both of the parents which participate in the feeding of the chicks by making numerous trips to the nest. The chicks develop rapidly and by the 13th day each chick had fledged (see graph). At this stage flight is limited to short flights at low altitudes with the attentive parents displaying aggressive tendencies towards all intruders. At fledging, the chicks are covered with a slate grey plumage. The bill is black, lined in yellow which will eventually change to solid black.

In the wild, Laughing Thrushes feed primarily on a variety of invertebrates which can only be simulated in captivity. Our adults are maintained on a diet of mealworms, crickets, moistened dog chow and a multi-vitamin (Super Preen). When the adults are feeding young, additional insect food is offered throughout the day.

ACKNOWLEDGEMENTS

Appreciation is extended to William Toone, Curator of Birds, for his constructive comments on an earlier draft. Thanks also to Patricia Witman, Senior Keeper, for assistance in collecting some of the data necessary for this paper. Lastly to Robert Thurston, Lead Gardener, whose botanical knowledge aided in identifying some of the flora used by the birds. All three are employed by the San Diego Wild Animal Park.

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PRODUCTS MENTIONED

Superpreen vitamin: manufactured by Super Preen Products Inc. 1000 East Williams Street Suite 100, Carson City, NE, USA.

Wayne Dog Chow: manufactured by Royal Canine USA Inc. St. Charles, Mo. 63303 USA.

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SOME OBSERVATIONS ON ROSE-RINGED PARRAKEETS IN SRI LANKA

Stefan Luft (Dinslaken, Germany).

INTRODUCTION

Rose-ringed Parrakeets *Psittacula krameri manillensis* belong to a genus whose members have the widest range of any parrot species in the world. They are also common on the beautiful island of Sri Lanka and in south-east India. Five members of the order Psittaciformes live on the island - four of them belonging to the genus *Psittacula*. They are the Rose-ringed, Alexandrine *P. e. eupatria*, Emerald-collared *P. calthorpeae* (which is an endemic) and Plum-headed Parrakeet *P. cyanocephala*. The fifth member is the Ceylon Hanging Parrot *Loriculus beryllinus*, which is also an endemic (Henry 1978).

Rose-ringed Parrakeets are found in most areas of the island, but they seem to prefer the plain areas of the dry zone. They are also found in the wet zone and in cultivated districts, where they can cause considerable damage in paddy and grain fields (Henry 1978). The breeding season lasts from November until June, sometimes later. At this time pairs normally leave the flocks, which can number up to 100 individuals, to start their breeding activities. The two or three eggs are laid in dead trees, abandoned woodpecker or barbet holes, and similar situations which provide nesting opportunities.

Sometimes they breed in less closed colonies, especially when the number of nest holes and occurrence of other parrakeet and bird species makes it necessary. I watched all five species in February/March 1993 in the lower hill wet zone in the surroundings of Kandy and Peredeniya. It is interesting that the Alexandrine Parrakeet also breeds in this area, because normally it is a species of the low country dry zone. But there seems to be a general change in distribution of Sri Lankan birds, whereby dry zone species move into the wet zone and low country birds further up into the hills (Hoffman).

CHOICE OF FOOD

This parrakeet feeds on a large variety of fruits, nuts and seeds. Ali and Ripley (1969) describe them feeding on nectar from *Salmaal*, *Buttea* and *Erythrina* flowers. Further, they feed on paddy, grain and maize (Henry 1978, Forshaw 1977). I watched

Rose-ringed Parrakeets feeding on the fruits of *Samenia saman*. I counted 30 to 50 parrakeets in these trees, feeding on the flesh of the long fruits while ignoring the seeds they contained. It can take up to 10 minutes for the birds to consume the flesh of one fruit before allowing it to fall to the ground while they start on another.

In the same trees I observed the Ceylon Grey-necked Crow *Corvus splendens protegatus*, which also fed on the fruits. I watched them attacking the parrakeets and following them for more than a few hundred metres. The crows flew nearly as fast as the parrakeets, so that the last ones were in critical danger of being captured by the very aggressive crows. But their agile flight, combined with their smaller bodies, allowed them to fly through the trees at enormous speeds to elude their larger, but less agile attackers. In only one hour I counted 16 attacks by the crows.

Another feeding tree seems to be *Schleichera oleosa*. I watched Rose-ringed Parrakeets taking small pieces of the bark and eating it. Sometimes they also fed on the seeds. In comparison to their activities in the *Samenia saman* trees, I watched only up to five individuals in *S. oleosa*. In the famous botanical gardens of Peredeniya I watched Rose-ringed Parrakeets apparently searching for food in *Parkia roxburgii*. I never actually saw them feeding. On the ground I found some fruits with marks that might have been made by Parrakeet bills. In the same tree I found the nest holes of Rose-ringed and Plum-headed Parrakeets. Some Sri Lankans told me that the parrakeets also feed on bananas, papaya and the fruits of the Yax tree,

DAILY ACTIVITIES AND PERIODICITY

There is not a great deal of information about the daily periodicity of members of the genus *Psittacula* in Sri Lanka. Forshaw (1977) describes Alexandrine parakeets flying to their feeding grounds at sunrise. In the evening, parrakeets return to their roosting trees in groups. The Rose-ringed Parrakeet seems to move about a good deal while searching for food each day.

The parrakeet year is subdivided by one or sometimes two breeding seasons. Table 1 gives a comparative summary of the different *Psittacula* species in Sri Lanka after Henry (1978). It becomes obvious that all four species are breeding from February to May. Some species start one or two months earlier, two species sometimes have a second breeding period. These circumstances are responsible for a strong nest hole concurrence between the parrakeets, which is strengthened by other hole-breeding birds like Ceylon Common Mynahs *Acridotheres tristis melanosternus*, barbets

and woodpeckers. I found the nest holes of parrakeets and mynahs in one tree. The situation between the different parrakeet pairs is similar and produces agnostic actions every day.

To obtain more information about the daily activities of the breeding parrakeets, I watched 16 nest holes found in an area of nearly 3.2 ha. Of this number, 10 nest holes belonged to Rose-ringed parrakeets, four belonged to Rose-ringed Parrakeets, four to Emerald-collared Parrakeets and only one each to Alexandrine and Plum-headed Parrakeets. Complementary, I counted the flying activities of the genus *Psittacula* in the surroundings of Kandy on several days and made some observations at feeding trees.

Flying activities started with sunrise and achieved a first maximum point at nearly 6.30 am. It stopped at 9.00 - 9.30 am. In this period the parrakeets seemed to fly from their sleeping and breeding trees to their feeding places, which could be several kilometres away. I was able to watch groups of up to 50 individuals at feeding trees during this time. Pairs very often fed their young from sunrise to 11.00 am. After this time there seemed to be a pause, which was signed by only a few feeding activities at the nest holes.

TABLE 1: BREEDING PERIOD OF SRI LANKAN PSITTACULA SPECIES.

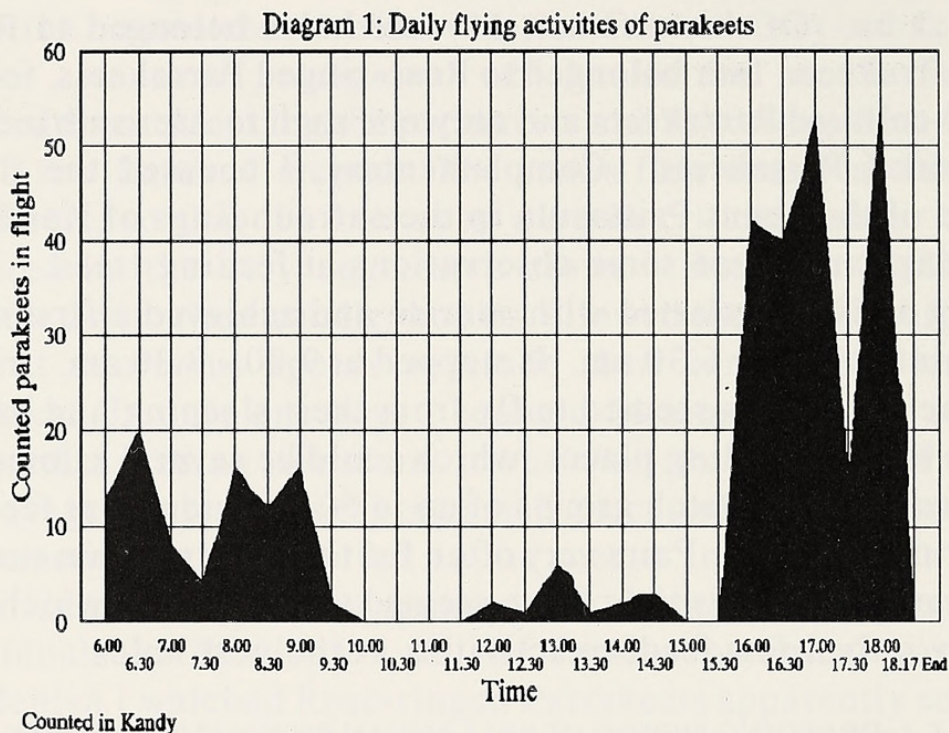
Month	<i>P. e. eupatria</i>	<i>P. k. manillensis</i>	<i>P. calthorpeae</i>	<i>P. cyanocephala</i>
January	+	+	+	
February	+	+	+	+
March	+	+	+	+
April	+	+	+	+
May	+	+	+	+
June		+		
July			++	
August			++	++
September			++	++
October				
November	+	+		
December	+	+		

+ = First breeding period

++ = Second breeding period

A new maximum of feeding activities started at nearly 3.00 pm. After 9.30 am, there were only a few flying parrakeets to be watched, and only between 12.00 and 2.30 pm were there more activities which were on a comparatively low level. The flying activities started again at 4.00 pm. At that time the parrakeets

seemed to fly to their feeding places again, leaving them at twilight. From 3.30 to 5.45 pm many feedings at nest holes could be observed. The situation at the feeding trees was similar.



I watched them flying alone, in pairs or small groups of up to 12 individuals. The flying height varies between 20 and 150 metres. **Diagram 1** gives a survey of the flying activities of *Psittacula* parakeets in an area near Kandy for one day.

BATHING

First of all, I want to point out that I never saw Rose-ringed Parakeets bathing in rain in Sri Lanka, but some parakeets bathe in water bowls in aviculture and rain bathing is described, too (Smith 1972).

I watched some Rose-ringed parakeets bathing in the wet leaves of trees after a rainy night. They flew into the fine structured leaves and whirled up the water by using their wings and shaking their bodies. Sometimes they hung inverted in the trees and opened their wings, shaking their heads and bodies. Their tails were spread and nearly all body areas were wet. Sometimes their bodies seemed to become too heavy for the birds to fly, so they had to shake to dispose of surplus water. This bathing behaviour could last up to 15 minutes.

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THE LARVON BIRD GARDENS, ZIMBABWE

By Jeffrey Boswall (Bristol)

Just outside Harare (formerly Salisbury), the capital of Zimbabwe (formerly Southern Rhodesia), lies the Larvon Bird Gardens. Owned and run since about 1991 by Frikkie and Henry Prinsloo, the gardens were taken over from a Harry Scott who founded the collection, mainly on orphaned birds brought in, and on donations of young birds.

The Prinsloos were originally interested particularly in parrots and these there still are, perhaps 25 species, but the majority - say 200 - of the c260 species now kept are indigenous Zimbabwean species. The few other exotics include Black Swan, peafowl and Indian Hill Mynah, all outstandingly popular with the public.

About 100 species live in a walk-through aviary where, on 17 December 1993, a number of birds were nesting including Wattled Plover. Red-faced Mousebirds, as well as different weavers, sunbirds, shrikes, starlings, finches, Estrildids and others can be studied at very close quarters. The whole establishment, from the standpoint of a birdwatcher, is a three dimensional living field-guide!

From the point-of-view of animal welfare, a good job is done with sick and injured wild birds and with unwanted captive ones. Then again, from a conservation perspective, research is intended into the breeding of - in particular - birds of prey. There are eight species of eagle, (including the Black) - a couple of Secretary Birds, a Gymnogene (a kind of harrier hawk), a Yellow-billed Kite (being a race of the Black) and four vultures including the Cape.

There is no limitation on size with Great White Pelican (at 25 lbs the heaviest flying bird?), Greater Flamingo (apart from cranes like the Sarus, surely the tallest flying bird), the Marabou, also very tall (a stork succeeding in being a vulture?) and the largest of all birds, the Ostrich (and the only living species so distinctive that it is in an order all of its own, and is the only one so 'honoured' out of - at the latest count - 9,650 bird species).

The collection of owls includes Pel's Fishing Owl and the Pearl-spotted. I tried to get the latter to turn its head and show me the 'eyes' in the back of its head but failed, so I've written to suggest that a mirror be fitted at the back of its cage.

Well over half the visitors are tourists from overseas, and while only a proportion of Zimbabweans who will enter are true locals, the proportion is increasing and the birds on display should help educate *all* Zimbabweans about their rich avian heritage.



Mace, Michael E. 1994. "Notes On Breeding The Black-throated Laughing Thrush." *The Avicultural magazine* 100(2), 98–106.

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