THE COMPARATIVE BEHAVIOUR OF HAND-REARED SPECTACLED THRUSHES *Turdus nudigensis*

by Robin Restall

At the end of June 2008, the gardener brought me two nestling thrushes that had fallen from their nest in a tree he had bumped something against. One nestling was naked and its eyes were closed, the other had short quills which were just breaking at the ends and its eyes were half-open. The smaller nestling failed to survive but the second nestling was successfully hand-reared. A week after it had been released a worker at the museum here in Caracas, Venezuela, brought me two older young of the same species. These notes describe the differences in the way the first nestling and the second two birds behaved as they grew to independence.

The birds were Spectacled Thrushes (the species formerly named the Bare-eyed Thrush) *Turdus nudigensis*. It is our common garden thrush in Caracas and may be seen on lawns throughout the day searching for food, exactly like a European Blackbird *T. merula* or a North American Robin *T. migratorius*, and is about the same size as these two. Its alarm call is very like that of a European Blackbird and the song of the territorial male is like that of a young Blackbird that has not yet learned its full vocabularly. It differs significantly, however, in also making a penetrating "mewing" sound like that of the North American Catbird *Dumetella carolinensis*. Nestlings, or much more likely, first-day fledglings, are raised all over the city every year. People here are as incapable of leaving a baby bird on the ground - where it would be fed by its parents - as they are in Europe and North America. My neighbour hand-reared one last year and proudly released it when he thought it was ready - only to watch it fly across the garden and land on the lawn, where a cat dashed out from the shrubs, grabbed the bird and was off in a flash!

The first two nestlings were apparently a couple of days apart in age. The smaller nestling, that was naked and whose eyes were still closed, had a broken leg; furthermore, it was bleeding from the bill and vent and its faeces were black and very smelly. It died the same night. The surviving bird begged readily and was one of the easiest birds to feed that I have ever reared. I fed it on Kaytee Exact, a proprietary brand of rearing food for baby birds, which is made and sold in the USA. It is claimed to be a complete formula suitable for all kinds of birds. Various kinds of parrots are shown on the label and, I guess, they are the prime market it is aimed at. I have used the formula many times in the past and found it to be as good as the

manufacturer claims. I made it into a somewhat loose pulpy consistency by adding water to the dry mix and fed it to the baby thrush using the tip of the handle of a teaspoon. All orphans and birds requiring isolation are kept in my bathroom (having a separate bathroom from one's spouse is extraordinarily convenient, especially when rearing baby birds and other creatures). The bird seemed to recognise me when I entered the bathroom and would greet me with a "I'm hungry" call and would watch me as I prepared the food, and would instantly start begging as I approached it. At first it was kept in an open false nest with a half-cover, then the cover was left off and later an open shoebox lined with newspaper was used. Once the nestling reached the standing and moving around the box stage it would, regardless of whether or not it was hungry, squat lower and start wing-fluttering as I approached.

At about fledging time, it was moved into a roomy cage and placed on the outside windowsill opposite my drawing board and computer, where I sat and worked and the bird could see me come and go. It also watched my wife come and go and anybody else who was around, and either ignored them or watched them calmly. In contrast, I could tell by its change of posture, agitation and/or alertness that it clearly recognised me. It would call me with the "I'm here" location call, that presumably keeps parents aware of where their fledgling chicks are. The call would change to a more insistent "Feed me," if I had been away for a while, and then as I opened the cage door, it would switch to the familiar urgent begging noise.

I experimented with its diet and tried to modify it by adding a little crumbled yolk of hard-boiled egg, grated carrot, grated hard cheese, etc. As a young man I learned a great deal from Frank Meaden about hand-rearing birds and weaning them onto dry mixes, etc., and am always interested to see how birds respond to different types of food. In this case the bird's droppings always discouraged me from persisting with any variation to the diet. The commercial formula always resulted in clean, neat, black and white droppings, perfectly encased in transparent sacs. Any variation in the diet resulted in imperfect sacs or green in the droppings. At the time I was exchanging notes with Ian Hinze in the UK, who had recently reared a Blackbird. He had fed his bird with dog food. So, I experimented and tried dog biscuits and those for cats. I soaked them long enough to soften them and, at first, offered them on a spoon handle and then with my fingers. The bird was very picky, refusing the buffy-coloured ones for both dogs and cats and instead preferring the green ones and then the red ones.

The bird alternated between sitting quietly watching life in the garden, and exploring its cage, often pulling up the corners of the newspaper on the floor and pecking at whatever took its attention. One day I gave it a pot containing some mealworms. These it watched with hawk-like fascination

for quite some time. Then, after a while, it picked up one and stood there perfectly still - holding the mealworm in its bill. It hopped back down to the dish and took another and returned to the perch with it, then more rapidly hopped back down again and took a third mealworm. I could not contain myself (so much for the detached scientist) and told the bird to get on and eat them before they wriggled out of its bill and escaped. It took a fourth mealworm and then expertly swallowed all four in two gulps, without losing any. I soon began to feed it the pupae and beetles as well, which were all eaten. Its order of preference was: first mealworms, second the pupae and third the beetles.

One afternoon, another young thrush which was virtually identical to mine, except for fewer spots on the breast (and was therefore a few months older), flew to the cage and then into the room. I caught it and after examining it, wondered what the reaction might be were I to put it in the cage with my bird. I momentarily had dreams of keeping them with the view to attempting to breed them later this year. It went into the cage calmly and quietly, whereupon my bird attacked it furiously, refusing to let go of the wing it was biting viciously. I therefore caught the newcomer and immediately released it.

About three weeks after fledging my bird began singing. It was an extended, sweet, gurgling subsong, typical of many birds and reminded me of that of various young Jays *Garrulus glandarius* and Carrion Crows *Corvus corone* I had reared while living in Spain. I have a Chinese bird bath for thrushes. It is a modest-sized cage with a metal tray about 3cm (1¼in) deep, so in effect the whole cage is a bird bath. With the tray filled with water, it is attached to the bird's cage with the doors open so that the bird can pass from its cage into the bird bath. The Chinese train their birds to bathe by closing the door once the bird is in the bath cage, and then take the opportunity to clean its cage.

My bird happily went into the bath cage and would sit there looking around, but would then hop back into its cage and would sometimes go back and forth, but never once bathed. Six weeks after it arrived, the bird was released in an ideal habitat, a small cove on the coast. The next day I saw it there foraging by a stream that ran out of the wood and towards the beach.

The second two young were thought to have dropped, jumped or fallen from their nest in a garden, though my guess is that they had already fledged. My friend heard a tremendous commotion in the garden and went to investigate. The young thrushes were being barked at by two guard dogs which were in turn being dive-bombed by the young thrushes' parents, who were intent on protecting their offspring. The young thrushes found their way into my care, because it was believed they would not have survived the

attention of the dogs, or the cats in the next garden, were they to have been put over the wall into the next-door garden. They were the most vociferous and frightening young birds I have ever handled, keeping up a "yacking" thrush alarm call and rocketing off in any direction at the slightest noise or movement. The rescue scene must have been like bedlam. It had probably been unnecessary to rescue the birds. This thrush is very common and circumstances like these must be everyday occurrences all over the city suburbs. I suspect that had they been left alone, their constant barracking, combined with the attacks of the parents, would have deterred the dogs, and the youngsters would soon have found a safe location to sit and wait to be fed.

This time I fed the two young using a kind of syringe - a hand-feeder used by Japanese birdkeepers to rear baby Java Sparrows *Padda oryzivora*. It is not used like a normal syringe, but is loaded bit by bit by pushing food into the end that goes into the bird's mouth. I used this gadget because the birds would not stay still and would not gape. I had to force feed them for the first day, but by the middle of the second day, they recognised the syringe in my hand and readily gaped. Once their crops were full, they would sit quietly in the shoebox, but as soon as the food had been digested a little, although not enough for the birds to gape for more, they became as flighty and as noisy as before. They could fly quite well and would fly around the bathroom exploring. One would go off and a few minutes later the other would follow. They could reach the basin and a couple of days later could make it up onto the shower curtain rail. I used a small, mesh-covered carrying cage as their 'home,' and they immediately took to this. They would go off and explore, then stand quietly together behind the WC bowl for 10 minutes or so, before one would fly up to the carrying cage, go in through the opening and settle down inside. The other would soon fly up to join it and there they would wait, sitting side by side, until I arrived to feed them. I continued to use the syringe, which they accepted readily. One would often fly to me and land on my head, back or shoulder, and the other would follow and invariably land at my feet, and then jump up onto a foot.

A week or so after their arrival, I placed the two in the same cage the previous thrush had been so happy in, and again placed it on the outside windowsill. They immediately settled down in the cage and like the first thrush sat happily watching the world go by. One of the two would sit and sing the same extended, rambling, gurgling subsong, that the first bird had sang. For the first few days they continued to beg for food when I came by, but then after the first feed began to refuse any further food. They ceased to recognise me from afar and ignored me until I was close by. Although both birds continued to beg for food, within a day or two they began to refuse to

take it from the syringe. I therefore switched to using the tip of the teaspoon handle and they greedily took the food from this every time. I offered them small, cat biscuits, which I had soaked long enough to soften them. One would be taken from my fingers and greedily consumed, but when I offered a second, they would turn their heads away. Soon they would only snatch food from the side of the teaspoon handle and refused to take it directly. Judging by the length of their tails, they were at the stage at which the first bird continued to happily feed from the front of the spoon. I offered them mealworms and these were looked at, but not with the same fascination the first bird had shown. From then onwards I made the food more crumbly and placed it on a saucer and put the soaked cat biscuits in a small bowl. From then onwards they happily fed themselves and did not beg for food again. I again offered them mealworms. One of the two took one and sat on the perch almost motionless holding the mealworm in its bill. The other bird immediately began a high-intensity wing fluttering, pleading, pathetic sounding begging - with its bill open. Its sibling ignored it, bit the mealworm a couple of times and then swallowed it. During the following few days, they continued to feed from the bowls, but ignored the mealworms. One bird sat in the water bowl, attempting to bathe, and completely emptied the bowl in the process. They completely ignored the bath cage. They did not even enter it to explore it.

They were later transferred to a large flight cage in my birdroom/ laboratory, where they became wild and independent almost immediately. They used the large bird bath hung on the cage door, ate the regular softbill mix and assorted soaked dog and cat biscuits, and quickly polished off a bowl of mealworms. It was only then that they began tearing up the newspaper on the cage floor, exploring or searching for insects. I was happy to release them soon afterwards in an orchard in the country.

Rearing two young birds together clearly worked much better, as they interacted with each other and their learning/exploring was obviously greater. What surprised me, however, was the way they 'trained me' to feed them, by progressively refusing and accepting food. Without having given it much thought before, I suppose I assumed that the parents did the weaning, but clearly the youngsters seemed to have their own in-built programming.

Avicultural Society Vice President Robin Restall painted the illustrations for and is one of the authors of Birds of Northern South America (reviewed in the Avicultural Magazine Vol.113, No.2, pp.89-90 (2007)). Robin resides in Caracas, Venezuela. E-mail: robinrestall@gmail.com

HAND-REARING WHITE-BROWED COUCALS
Centropus superciliosus

by Louise Peat

The Cuculiformes is a fascinating order that has two distinct families: Musophagidae (turacos) and Cuculidae (cuckoos). The subfamily Centropinae contains almost 30 species of coucals of which the White-browed species is the only representative in captivity in Europe according to the ISIS database (2008).

The White-browed Coucal occurs on Socotra Island and in south-west Arabia and has a wide distribution in Africa, from eastern Sudan, Ethiopia and Somalia, southwards through Uganda, Kenya and Tanzania, to Angola, Zambia, Malawi, Namibia, Botswana, Zimbabwe, Mozambique and South Africa. Clements (2007) listed four subspecies: *C. s. superciliosus, C. s. sokotrae, C. s. loandae* and *C. s. burchelli* (*fasciipygialis*), however, other recent authors (e.g. Sinclair & Ryan, 2003; Hockey, Dean & Ryan, 2005) treat the latter as a full species, which they call Burchell's Coucal *C. burchelli.*

The White-browed Coucal inhabits rank vegetation, thickets, bush and wooded grassland, often near water. It feeds mostly on grasshoppers, crickets, locusts and beetles, along with lizards, frogs, mice and young birds and eggs.

It is monogamous. The nest is a large and untidy domed structure with a side entrance. It is built of dry grasses and twigs and is usually lined with leaves. It is usually built in reeds, a bush or tree, especially one with tangles of creepers or thick foliage. Three to five white eggs are laid, which are incubated mainly by the male for a period of 14-15 days. If disturbed the chicks emit a foul-smelling black cloacae liquid (del Hoyo et al. 1997). They fledge at 18-20 days, at which point they are barely able to fly and mostly creep about waiting for their parents to feed them.

Here at the Cotswold Wildlife Park in Oxfordshire we first began working with the White-browed Coucal in 2004, following the arrival of six birds from Parc Paradisio, Belgium. Three went to Exmoor Zoo to set up a breeding pair there, with an unrelated pair and a female offspring being retained here. Our birds are housed in an aviary with two further representatives of the order Cuculiformes, the Guira Cuckoo *Guira guira* and the Roadrunner *Geococcyx californianus*. The three species cohabit peaceably and rarely interact with each other.

In 2005 we successfully hand-reared a White-browed Coucal, following which the parents went on to rear a further three young. Since then the parents have successfully reared a further nine young.

Early on in 2008 the breeding pair hatched several clutches of eggs, but only one chick survived. Due to the long list of collections that have expressed an interest in obtaining this species and the age of the breeding pair, we decided to intervene and maximise the number of young raised in 2008. Three clutches (a total of 16 eggs) were taken for artificial incubation. Fourteen of the eggs hatched.

Using information gained when we hand-reared the chick in 2005, e-mail information on coua rearing at Walsrode and the article in the *Avicultural Magazine* about the hand-rearing of this species at Exmoor Zoo (Gibson, 2007), I put together a hand-rearing protocol. Using further information gained during 2008, this has been tweaked here and there, resulting in the following revised protocol which is, I believe, comprehensive and easy to use.

Hand-rearing protocol

Hatch weight 6.7g-7.9g

Brooder temperature 35°C (95°F)

The chicks are kept hydrated by having distilled water from a syringe carefully dribbled onto their beaks. This is done every few hours during the first 24 hours. The water is generally lapped up by the chicks. They tend not to defecate during the first 24 hours. The chicks, which are blind and covered in white hair, are kept in small baskets with tissue substrate. They are generally alert and responsive to noise stimulation and touch. When touched they gape. Their movements are jerky.

Age 1 day

Average intake per feed 0.5g Average growth rate 6.49%

During the early days the chicks are fed pinkie mice with the milk sac and all sharp bones removed, and waxworms with the head removed. Each item is placed in luke warm distilled water for a few seconds immediately prior to being dropped in the chick's mouth. One feed per day is dusted with Nutrobal (multivitamin powder). Chicks are fed only when they gape and never receive more than 10% of their morning body weight per feed (generally they receive far less). The amount of food is decreased or increased according to their daily weight gain which is carefully monitored. They receive six to seven feeds between 7.00am-10.00pm, being fed initially every two hours to two and a half hours.

Their hydration levels are monitored closely, with their faeces being a good indication. They should normally be enclosed in a faecal sac. If they are not, it may indicate that there is a problem. Raising the level of humidity in the brooder will encourage defecation.

Age 2 days
Average intake per feed 0.8g Average growth rate 22.9%
Chicks should defecate after every other feed. If this does not occur, handling can induce defecation or stimulating the cloaca with a warm, damp cloth can be effective.

Age 3 days
Average intake per feed 1g Average growth rate 24.32%

Age 4 days
Average intake per feed 1.5g Average growth rate 29.87%
Slits of eyes should be apparent now.

Age 5 days
Brooder temperature reduced to 34°C (93.2°F)
Feeds reduced to every three hours
Average intake per feed 1.8g Average growth rate 27.79%
Pin-feathers begin to protrude on edges of wings and those of the tail begin to appear.

Age 6 days
Average intake per feed 2g Average growth rate 27.39%
From this point they tend to defecate after every feed.

Age 7 days
Average intake per feed 2g-2.5g Average growth rate 20.54%
Pin-feathers appear along sides of torso.

Age 8 days
Average intake per feed 2.5g-3g Average growth rate 20.5%

Age 9 days
Average intake per feed 3g Average growth rate 17.31%

Age 10 days
Brooder temperature reduced to 32°C (89.6°F)
Average intake per feed up to 3.5g Average growth rate 13.85%
Crickets with their legs, wings and head removed introduced into the diet.

Age 11 days
Average intake per feed 4g Average growth rate 11.02%
By now the body should be covered with pin-feathers.

Age 12 days
Average growth rate 12.25%

Age 13 days
Brooder temperature reduced to 30°C (86°F)
Average growth rate 10.42%