

# HAND-RAISING KOOKABURRAS

By Bob Cleaver

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For any aviculturist these must be one of the most enjoyable and amusing birds to keep, and one of the easiest to maintain in captivity. However, before I get into the detail of hand-raising, there are some important points about keeping these birds that things cannot be overstated and should not be overlooked.

Firstly you will need very understanding and/or like minded neighbours. Kookaburras are, in some areas, known as the Bushman's Clock because they have a habit of singing their little hearts out just before it gets light in the morning and believe me, if you happen to be 'up close and personal' it is **very** loud. If you live in suburbia and a local council inspector comes knocking on your door with db meter in his hand, you could be in for a rude shock. Personally I think it is the most delightful sound to be woken up by, but some, I'm sure, would not appreciate the subtleties of their song at some

ungodly hour of the morning. They can also be set off through the night if something disturbs them, particularly bright moonlit nights.

You should also give some thought to where you are going to put the bird once it reaches maturity. A newcomer may not be accepted by existing aviary inhabitants and Kookaburras need a large aviary, preferably with plenty of height as they will often sit on a high perch for hours surveying the ground beneath waiting for something to move. Needless to say you will not often have a mouse problem in an aviary containing Kookas. They will also attack snakes and also eat them, if they are small enough. I have seen evidence of wild Kookaburras killing, but not eating, snakes of over a metre in length. Likewise you cannot keep small birds, either ground dwelling or flying, in the same aviary – well at least, not for very long.

## Incubation

I first started to hand-raise Kookaburras some years ago after we found one of our adult pair about make a meal of one of their offspring. Previous years we had had no success in breeding them because the young always seemed to disappear – now we know where they went – they were being eaten!!

I have to say that for someone learning the intricacies of hand-raising baby birds, I would class Kookaburras as very quick and easy and in my opinion they are far easier than *any* of the seed eating birds.



**Figure 1.**  
**Pipping egg**

The incubator temperature is set at 37.5C and mine has a two water troughs, one of which is left dry until three or four days before hatching, the other is filled with water from day one and allowed to run dry and then re-filled. It is usually three or four days between refills. The second trough is filled four days or so before hatching to increase the humidity to assist the chick with an easy exit. It also automatically rotates the eggs through 90 degrees every hour and a half or so and I rotate the eggs by hand, end over end, two or three times a day (or whenever I remember). From the day incubation starts to hatching is 24 days and at about 36 to 38 days the bird is flying.



**Figure 2.**  
**Chick one hour old**

Having said that, I have had some unexplained deaths along the way, usually at about day 4 or 5 after hatching, for which I cannot offer any explanation although I can put forward some ideas. It may have been because the chick was too cold or too warm or the food was physically too big or a sharp piece of bone in the food had penetrated the chick somewhere inside. The food could have been left too long and had gone ‘off’ (although I think this suggestion is unlikely as I have seen my adult birds eat some pretty rank maggot ridden leftovers without seemingly to come to any harm). It could also be because the incubation period was interrupted in some way and the chick had not developed properly. Short over-temperature periods are often fatal within the egg but extended under-temperature periods do not seem to have the same effect unless the temperature drops too far for too long. This could be another possible explanation for early deaths after hatching.

This reminds me of an occasion when we had a power cut in the middle of the night halfway through the incubation period of two of my Kookaburra eggs. I woke (for some unknown reason – like you do) during a dark moonless night, squinted out of one eye to look at the clock – no clock! Just blackness! “Another !?#! power cut.” I thought to myself; turned over and was about to go back to sleep but immediately shot bolt upright and in a befuddled muse of sleep and frantic thought; I thought “Power cut!!”



**Figure 3.**  
**An old incubator top  
converted into a brooder**

Incubator!! Eggs!!!! I leapt out of bed all bleary eyed and felt around in the dark for my dressing gown, stubbed my toe on the corner of the bed, lurched my way into the kitchen, tripped over the cat, found a torch and eventually got to the incubator in one piece without breaking anything. The incubator felt cold. Well not cold exactly but certainly not warm. Tepid would be a good description. This was about 1.30am and Lord knows how long the power had been off. But what to do with the eggs? There were only the two Kookaburra eggs in the incubator at the time but I certainly didn’t want to lose them.

I have another old incubator which had become unreliable and was converted into a brooder using a plastic bucket, a bit of weldmesh, carpet underlay and transformer insulation (see figure 3). It operates from a 12V transformer which I had wired up to run from both a mains supply and the cigarette lighter in the car, but if I did that it would mean leaving the car engine running or risk a flat battery. Then I thought “Hang on a minute, I’ve got two hands and only two

eggs, I'll hold them" So I picked up the eggs, one in each hand, put my hands in my dressing gown pockets and went back bed. But then I couldn't go back to sleep for fear of squashing the eggs, so I lay there in a sort of dozy half waking, half sleeping state until the power came back on again - five and a half hours later. The eggs then went back into the incubator and I crashed.

Those two eggs hatched successfully and the resulting birds have now reached adulthood and are doing very well. Heaven knows what I would have done if I had had a dozen eggs in that incubator at the time.

## Brooding



**Figures 4 & 5**

**Heat box made from bits of ply, chipboard and some salvaged electrical fittings**

Once the bird has hatched it will need to be kept warm in a brooder (or leave it in the incubator if you haven't got one, but reduce the temperature to around 30/32C). Earlier I talked about the brooder I use (see figure 3), but I only use it whilst the birds are very small. As the birds get a larger, it becomes a bit unwieldy as they have to be lifted out to

be fed. At this stage I then transfer them to a heat box (see figures 4, 5). This I made up from a few old scraps of chipboard and plywood and has a removable perforated floor under which is a 15w oven globe (or pilot globe). This produces just enough warmth to keep the inside of the box at even temperature without the risk of setting fire to the tissues or paper towels under the bird. If the box is kept in a room in your home and when the bird has reached the pin feather stage, the heat lamp can be turned off. From a very young age the chick will "back out" to the entrance of the heater box or brooder and expel its bowel contents with some force, (another reason for not using the other brooder). From this you can see these birds are very messy and unless you provide some sort of replaceable 'bedding' and a way of preventing the room becoming decorated with excrement, you are going to have an awful lot of cleaning up to do! I usually line the brooder with tissues and paper towel which is change daily and hang some newspaper or paper towel at the entrance to catch the squirts. You also need to be aware

of this behaviour when positioning the brooder, and be warned, standing in the wrong place at the wrong time is a hazardous occupation. They can ‘squirt’ considerable distances and I’m talking in metres not centimetres. They also do this in the wild by backing up to the entrance of their tree hollow. In this way they keep their nesting hollow reasonably clean.

## Feeding

To get the food into the bird I use a pair of long fine tweezers that I scrounged from my wife’s sewing box. I find them ideal as they have a bend towards the point but any sort of tweezers should be OK. If you think about the adults for a moment, they have a formidable beak, which you could hardly call delicate, and the youngsters have an enormous gape (see figure 6).



**Figure 6**  
**This is day 28 and capable of taking a whole mouse**



**Figure 7**  
**This is Kooka No.4 (see chart) on day 5. The cast weighed 1gram. This was this birds 3<sup>rd</sup> cast, having produced two smaller ones on day 3.**

not have a crop which makes feeding intervals much less critical. All their food goes straight to the stomach, however they do have a gizzard which is used to store and compress all the stuff they cannot digest like fur, bone, feathers, scales etc. which is then regurgitated as a pellet (see

I feed my Kooka chicks on day old domestic chicken culls and/or mice, cut up into very small pieces with a light sprinkle of Wombaroo Insectivore Mix. I purchase the day old chicken culls from a local hatchery and mice can be purchased commercially or you can breed your own (but then you’ve got to kill them which is not a job I enjoy, even if they are just mice).

It is very important these birds get “whole” food, as they produce what is known as a cast (as do most birds of prey). Unlike seed eating birds, they do



**Figure 8.**  
**This cast was produced by the same bird at day 13**

figure 7 & 8). This process is important for their wellbeing. The newly hatched chick will produce a cast as early as its second or third day. They will continue to do this at intermittent intervals. The amount and size of the casts produced will be determined by what and how much food the bird is taking.

I must be honest and say that I haven't tried the following method but you can also feed them with cut up strips of beef (or the like) which has been dipped in or sprinkled lightly with Wombaroo Insectivore Mix. Using this method I would expect them to produce far fewer casts.



**Figure 9**  
**Day 11 – Pin feathers just**



**Figure 11**  
**Day 24 – Pin feathers**

For the first week or so the food pieces will need to be extremely small, something about the size of a fat toothpick but only half the length. The easiest and least messy way to do this is to cut up the chicken or mouse whilst still frozen or partially frozen. I slice them into wafers about 2 or 3mm thick and then cut the wafers into toothpick sized pieces and then in half. Whilst the Kooka is very tiny I do not use the feet of the day old chicken.

They seem to me to be a bit big and possibly of little

nutritional value. I would feed as much as the bird is prepared to take, five or six times a day, the last feed just before I go to bed. It is not necessary to feed them through the night and in fact, these days, my birds rarely get their first feed much before 9 o'clock in the morning. It is also not necessary to make these feeds at exactly timed intervals. Just think about these birds in the wild. Mum, Dad & siblings are not going to be at the nest every hour with a feed, it may take them all day to find one decent feed or they may visit the nest only two or three times through the day or they may even be backwards and forwards every few minutes with grubs, moths, butterflies, skinks and the like. What I am saying is that timing is not critical



**Figure 10**  
**Day 19 – Full covering of pin**



**Figure 12**  
**Day 28 – Fully feathered**

but it seems that food intake is. The chicks are extremely resilient and will respond to the amount of food offered. On some (but not all) of the Kookas I have handraised I decided to keep records to give me an idea of growth patterns and now having started this process hope to continue over forthcoming years (see chart). The first three birds in the chart below were fed religiously five times a day, early morning, mid morning, mid afternoon, early evening, and last thing at night, but the latest one was fed every couple of hours or so throughout the day and you can see from the results that this bird had exceeded the other three in both size and speed of maturity. Another interesting aspect of this chart is that at the first flight stage, three of these birds were almost identical in weight but the other was much lighter. This prompts the question – is the weight difference a sex indicator.



Unfortunately I cannot answer that question (but I'm working on it), as these birds have all gone to new homes.

As the chick grows you can increase the size of the pieces of food offered, until by the time it has reached the pin feather stage, a day old chicken need only be quartered

and mice can fed whole if small or cut in half if large. The food intake is quite amazing. By the end of the

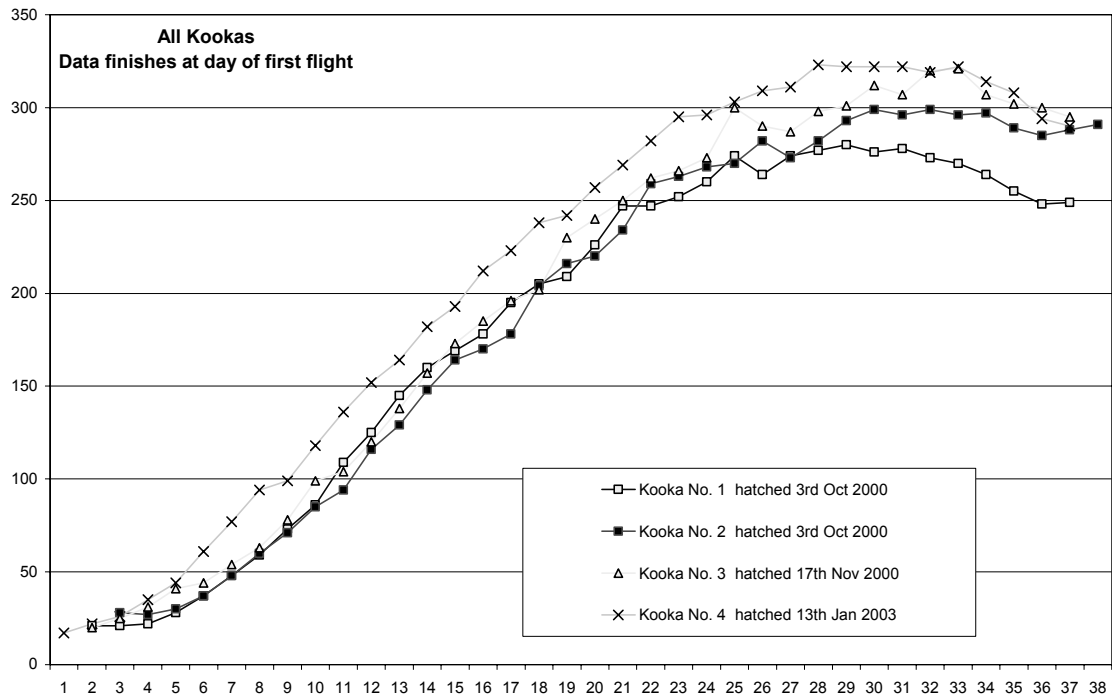
first week you will be using two chickens (or about four mice) a day, up to a peak of three or even four chickens (heaps of mice) at the time the protective sheath covering their pin feathers start to fall off. From this point on, the bird's food requirement will reduce quite dramatically. You will also notice a corresponding drop in the birds' weight as the feathers proper start to appear which happens very quickly. I have found that Kookaburras, and I am reliably informed the same is true with others of the kingfisher family, seem to be in pin feather for what seems like



**Figure 14**

**Adult birds - Note the much larger bill with**

forever and then quite suddenly, almost overnight, slough the pin feather casings and hey presto – feathers! This will happen somewhere around the day 20 to 24 stage (see figures 11 & 12). Once the bird is flying and settled in a new aviary offer the bird as much food as it will take but slowly reduce the volume. I would suggest up to two chickens per day (or equivalent) would be adequate. All our adult birds currently manage very well on one and a half per bird per day with a starvation day once a week.



**Figure 15**  
**Graph showing the growth data of the four Kookaburras recorded to date**

If any of you are interested in the brooder/heater box design I would be happy to forward you a sketch plan or if you have any further questions on the hand-raising or maintenance of Kookaburras I can be contacted through The Avicultural Society of South Australia Inc.

I have also had some limited experience with the hand-raising of the Sacred Kingfisher, Barn Owl, Musk Lorikeet and some seed eating birds like the Galah, Cockatiel and the Regent Parrot.