

BREEDING THE GREAT-BILLED PARROT

By Neil O'Connor (Coulsdon, Surrey).

The Great-billed Parrot, *Tanygnathus megalorhynchos*, was little known on the British avicultural scene until 1987 when a sizeable consignment was imported. Little has been heard or written about them since that date and no breeding results have been reported. When first imported they were advertised at around £1,000 per pair but owing to lack of interest and demand, the price plummeted fairly rapidly. They are now rarely available. It does seem a pity that more effort was not made by parrot enthusiasts to breed this very lovely bird in captivity particularly as it is unlikely that many more will be imported.

The Great-billed Parrot has a wide distribution in the islands of Indonesia and is also found in West Iran and in one of the Philippine islands where it is assumed it was introduced. It would appear that many of the various island races have minor distinctive colour differences.

My present pair were purchased in March 1992 and from the beginning showed every sign of incompatibility. The hen was the dominant bird and whenever I was in the proximity of their aviary, she persistently biffed the cock with her beak at the same time making threatening croaking sounds. The cock was never seen to defend himself and fairly rapidly made off from her unwelcome attentions. They always roosted in the shelter but never side by side - always several inches apart.

The flight in which they are housed is 12 feet long by 6 feet high by 3 feet wide. The shelter, open fronted, is 3 feet long. Their nest box, which is in the shelter, is 20ins. x 12ins. x 9ins.

In mid May 1993 the cock was seen several times going through the motions of regurgitation whilst alongside the hen but no transference of food was witnessed.

On 18th May the hen was in the box at feeding time. She emerged but re-entered the box within a couple of minutes. Inspection on 19th May revealed one egg. A second egg was laid four days later on 23rd May and the cock was seen feeding the hen on the same day. On 17th June, 29 or 30 days after the first egg was laid, the sound of young was heard. On 18th June, the hen was out of the box at feeding time. Inspection revealed one chick and pecking was heard in the second egg. Mid afternoon on 19th June, the hen was again out of the box. A quick inspection revealed that

the second chick had arrived. Both chicks were alive and well on 20th June. The next opportunity to inspect the box came on 24th June, when sadly the younger chick was found dead. Its crop was empty and it is likely that it had been dead for some days.

The birds were fed on sunflower seed and a mixture of three parts canary seed and one part each of hemp, wheat and oats. A vegetable mix of chopped carrot, peas and sweetcorn was also supplied.

Following my usual practice, all hard seed was withdrawn a few days before the eggs were due to hatch and supplanted by soaked sunflower together with the aforesaid vegetable mix, both dusted with a proprietary nutritional powder. Many years ago, I lost a baby Muluccan Cockatoo, incubated and reared for five days by a hen *Eclectus*, it's crop packed with canary seed. Since then, no hard seed is given until the young are at least three weeks old.

When the young Great-billed arrived, it was noticed that most if not all the chopped carrot and peas were left in the food pot. After a few days, the sweetcorn content was increased and the other two ingredients decreased. The carrot and peas seemed not to be touched. I continued with this mixture for a few more days, all the sweetcorn was eaten but I was not certain whether or not some of the carrot and peas had been eaten. A mixture of sweetcorn and chopped apple was then given, together with six peas and six pieces of chopped carrot. On the following day, the pot contained six peas and six pieces of chopped carrot, the rest had been eaten.

On 29th June, when the chick was 13 days old, it was completely bare all over its body, not a hint of down. No sign of any feathers beginning to erupt. At 18 days old, down was starting to grow on its rump. One eye was open.

Mid afternoon on 11th July, all soaked sunflower had been eaten but the fruit and vegetables had not been touched. It is usually mostly consumed at this time of day.

The chick's crop was almost full. Sunflower was put in the food pot and both birds quickly ate it and the hen re-entered the nest box. Later that evening, the hen was out of the box. the chick was very noisy and its crop was empty. It was taken out for hand rearing. It ate ravenously and made no sound when gulping the food as do cockatoos and African Greys. It was 25 days old and had pale grey down on its rump, paler down on its breast. Its head and cheeks were completely bare and pin feathers were erupting on its wings. The mandibles were a rich orange.

At five, weeks old the wings were well covered in dark sheaths

and green feathers had emerged from sheaths on its shoulders. The head was darkening in colour. At six weeks old, green and yellow tail feathers were emerging. A few days later, hints of green were appearing on crown and cheeks and some yellow/gold on wings.

On 5th August, the cock was found dead on the food shelf, his right wing was almost severed at the shoulder. I have little doubt that this was a post-mortem injury inflicted by the hen. Another cock was purchased on 14th August, but more about that later.

When eight weeks old, bright blue feathers had appeared on the centre of the chick's back. The breast was olive green and its head and cheeks were well feathered. Its tail was 1½'' long. A week later it was transferred from the feeding box to a cage. It could roost comfortably on one leg.

On 24th August, when nearly 10 weeks old, it had been vomiting some of its food for a few days. An injection administered by a veterinary surgeon cured its crop infection and later that evening it ate avidly from the spoon. When 12 weeks old, it had been nibbling seed for about two weeks but not consuming very much. It had started vomiting again, was very thin and extremely noisy when hungry. On 11th September when it was 12 weeks and three days old, it was lying on the perch supporting itself in this position by its beak resting on a cross bar of the cage. It was removed from the cage and was unable to stand. Its crop was still full from its feed some seven hours earlier. It died soon afterwards.

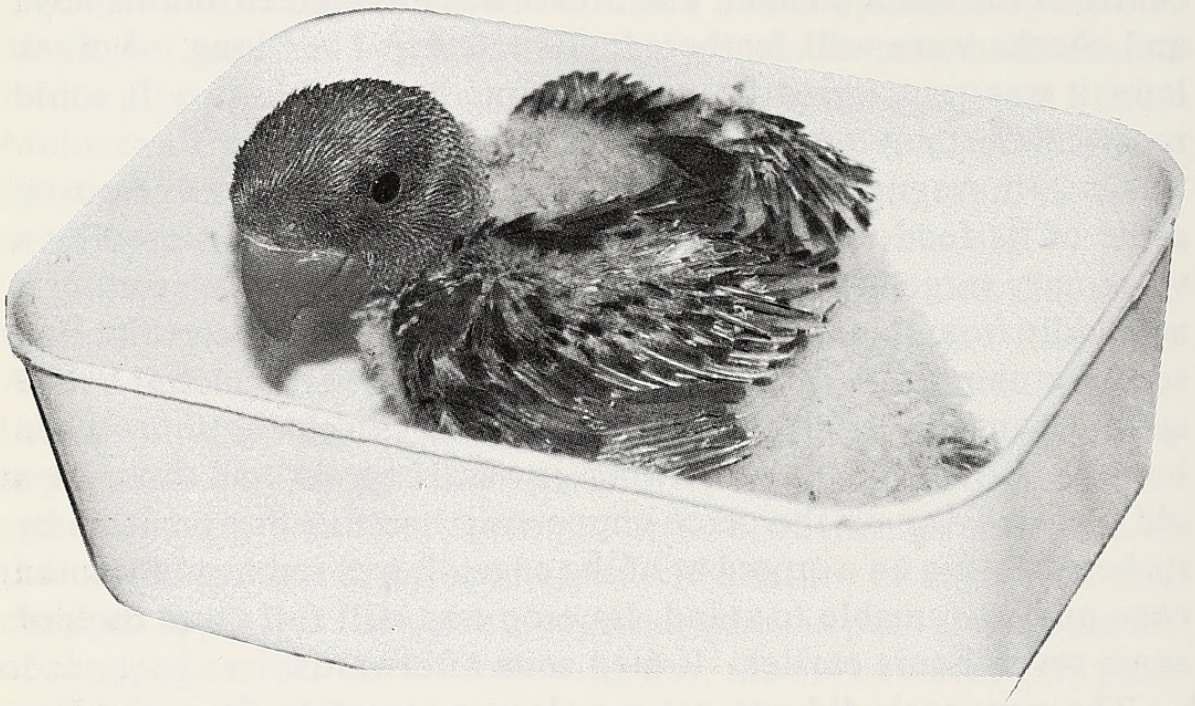
The new cock did not get a welcome reception from the hen when introduced on 14th August but this was as expected. Great-billed hens are quite definitely the dominant partners. No fighting took place as the cock offered no resistance and quickly sought refuge on another perch.

On 1st May, 1994, pairing was observed twice. The following day, the cock was seen feeding the hen. This pattern continued for some days and on 11th May, the hen was seen entering the nest-box. On 15th May, the hen did not emerge from the box at feeding time. On 23rd May, the hen was out of the box at feeding time and inspection revealed two eggs. One egg was much smaller than the other and later proved to be clear. On 13th June, one chick was seen in the box. The chick was regularly inspected but only when the hen was out of the box. The cock never entered the box nor was he ever seen to look into it.

On 10th August, when the chick was just over eight weeks old, it was seen roosting on the nest box entrance for the first time. It had a large flat crown like the cock as opposed to the smaller and

more rounded crown of the hen. On 25th August when it was ten weeks and three days old, it emerged from the box. Five days later, the chick re-entered the box and spent some hours there. This was the only occasion on which it was known to re-enter the box.

The chick was feather perfect, glowing with health and beauty. The hen was very attentive to her progeny and was seen to feed it regularly. The cock ignored it completely and was never seen to approach it.



Chick at six weeks old

When about 12 weeks old, the young bird was seen visiting the food pot. At 13 weeks, it was probably independent. It was a strong and accurate flier from the time it emerged from the box and permits closer human approach than either of its parents. It is also probably marginally larger than either of its parents but apart from that, the only noticeable difference is in the colour of its eyes, which are a dark brown, unlike those of the adult birds which have pale yellow irises. The black wing coverts which are edged with gold are no less colourful than those of its parents.

Sad though it was to lose the chick which hatched in 1993, the fact that it was hand-reared enabled me to make a detailed photographic record of its development.

INCUBATION AND HAND REARING OF ABYSSINIAN GROUND HORNBILL

By Jo Gregson

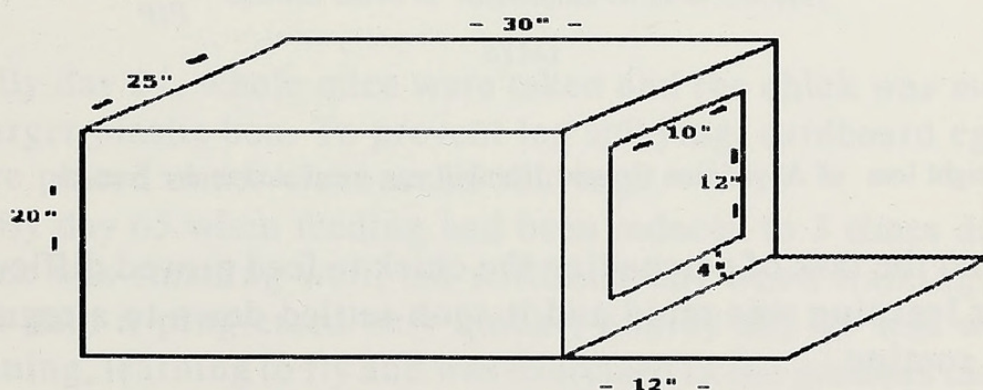
(Senior Head Bird Keeper, Paignton Zoological &
Botanical Gardens)

Despite its name, the Abyssinian Ground Hornbill *Bucorvus abyssinicus* ranges widely over most of central Africa from Gambia in the east, to Ethiopia in the west and extending south to Kenya and Uganda.

It is the largest of the hornbills spending most of its day on the ground hunting for small mammals, reptiles and insects, returning to trees only for the purpose of roosting at night.

Unlike other hornbills the pair do not seal the entrance of their nest cavity. Even so, the female rarely leaves the nest throughout incubation and the male supplies food while watching over the nest. Two eggs are laid four to five days apart. Incubation begins with the first egg, giving little chance for the second hatchling to survive.

The Paignton pair of hornbills are kept in an aviary comprising an outside viewing area measuring 4 x 6 x 2 m. high, with off-show inside quarters 4 x 6 x 3 m. high. During early 1993 two nest boxes were placed in the house, one of which, a tunnel type, was placed on the floor and the other, of a more conventional shape was fixed



Nest Box

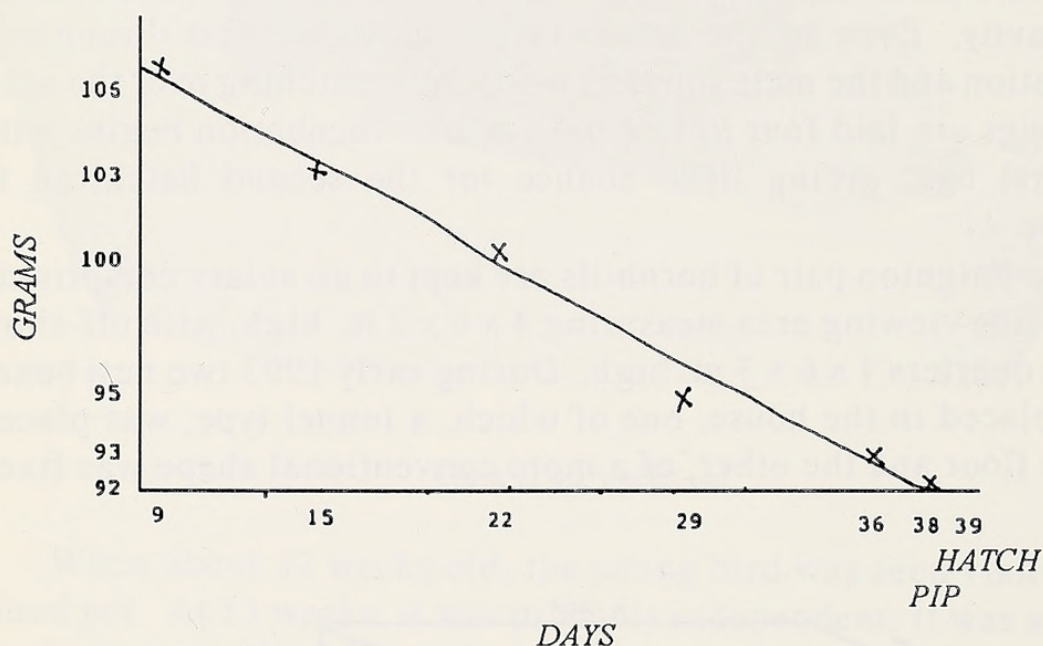
at a height of 2 m. Although interest was shown in both boxes the higher one was preferred. Dried peat was spread in the box while dried leaves and twigs were scattered for nest building.

Eggs laid throughout 1993 were always broken and so on 25th January this year two eggs were taken for artificial incubation.

The female had been sitting for eight days, both eggs were found to be fertile and were placed under a broody bantam. On day 36 they were transferred to a still air incubator set at 39.5° centigrade.

The smaller of the two eggs had begun to lose weight excessively by day 33, and despite an increase in humidity, a 20% weight loss had occurred by day 38. The chick was assisted from the egg on day 40, but unfortunately remained weak until its death at 5 days. A post mortem examination revealed a diseased liver.

The bigger egg pipped on day 38 and, hatched on day 39 with only a 13% weight loss. The chick's navel was dabbed with an antiseptic. After being left in the incubator overnight it was moved to a brooder set at 35° centigrade. Being blind, naked and helpless the chick was confined in a small tissue-lined tub.



Weight loss of Abyssinian Ground Hornbill egg incubated under bantam.

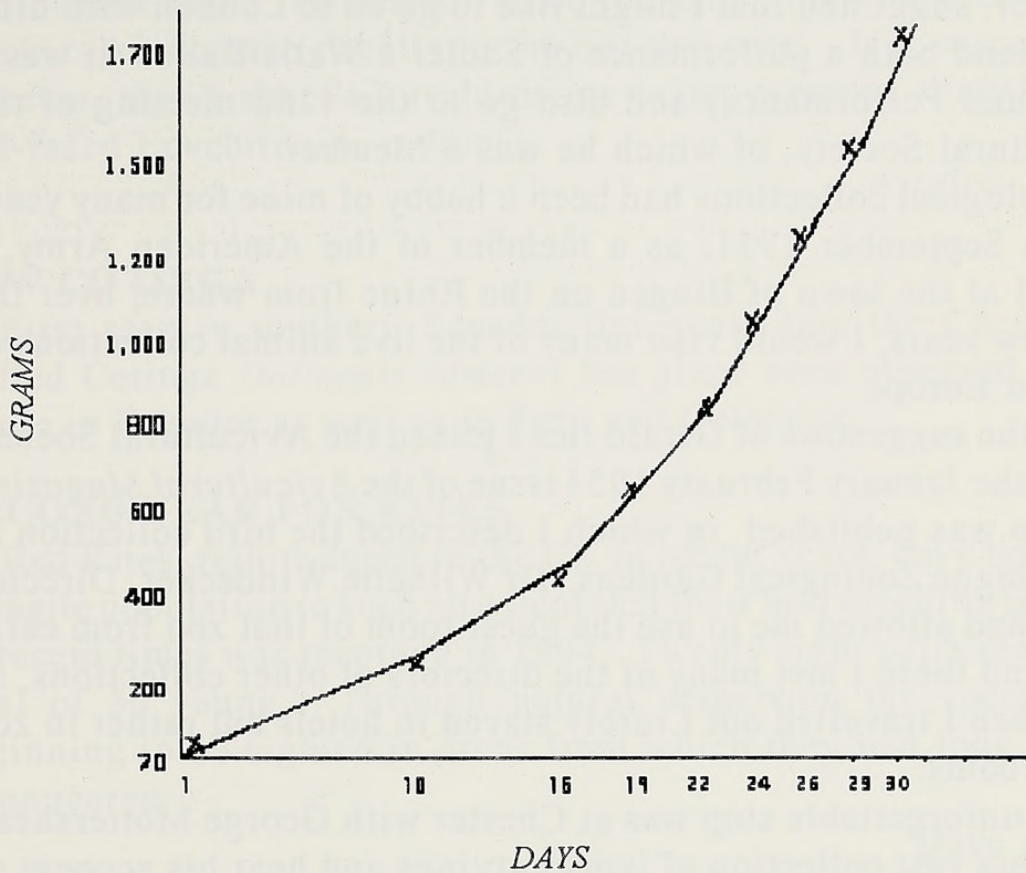
At first the task of persuading the chick to feed proved difficult, however learning was rapid and it soon settled down to a regular feeding routine.

The food consisted of finely chopped chick and mouse muscle seven times daily. After a few days, soaked Diet A (Mazuri Zoo Foods) was added once daily with a sprinkling of SA37 and much bone meal.

Soon after hatching, the chick's skin became dry and flaky. Rather than risking a fungal infection through increased brooder

humidity, petroleum jelly was rubbed onto the chick's skin once daily until the pin feathers were coming through. This worked well and further prevented the faeces sticking to the chick's rear end.

The temperature of the brooder was reduced by 2.5° on days 12, 20, 24 and 30. Pin feathers were showing and the chick's eyes began to open by the 11th day. Over the next 2 - 3 days, as the eyes opened fully, it became very vocal at feeding times.



Growth curve of Abyssinian Ground Hornbill

By day 24, whole mice were taken and the chick was moved to a larger plastic box. To prevent leg splaying, cardboard egg trays were placed under clean wood shavings.

By day 65 when feeding had been reduced to 3 times daily the chick was standing well, but still unsteady when walking. From that date it progressed very quickly and by day 80 was walking, running, learning to fly and was exercised in the grounds mornings and evenings.

During February the adult hen laid a second clutch which she sat for the full 39 days, unfortunately both eggs disappeared. At the time of writing (May 1994) a third clutch has now been removed for artificial incubation.

SOME THOUGHTS ON A VISIT TO BRITAIN IN MARCH 1954

By Marvin L. Jones (San Diego)

In March 1954 I undertook a tour of various zoological collections in Great Britain, which included a stop at Belle Vue Zoological Gardens (Manchester). There, Gerald Iles, the long-time Director, suggested that I might like to go on to London with him, and attend both a performance of Sadler's Wells Ballet (it was a Command Performance) and also go to the 42nd meeting of the Avicultural Society, of which he was a Member.

Zoological collections had been a hobby of mine for many years and in September 1951, as a member of the American Army, I arrived at the town of Bingen on the Rhine from where, over the next few years, I would visit many of the live animal collections of western Europe.

At the suggestion of Gerald Iles I joined the Avicultural Society and in the January February 1954 issue of the *Avicultural Magazine* an item was published in which I described the bird collection at the Cologne Zoological Gardens. Dr Wilhelm Windecker, Director there, had allowed me to use the guest room of that zoo from early 1952 and there I met many of the directors of other collections, so that when I travelled out I rarely stayed in hotels but rather in zoo guest rooms.

An unforgettable stop was at Chester with George Mottershead to see his vast collection of ivory carvings and hear his account of the creation of the then fast-building Chester Zoo, now the principal collection in the United Kingdom.

Thanks to Arthur Prestwich and the then Head Keeper of Birds at London Zoo, Alf Woods, I soon found myself busily visiting many private and public collections, reporting on them in the *Avicultural Magazine* or *International Zoo News*.

In December 1993 I retired after almost 19 years caring for the animal records at the Zoological Society of San Diego and have begun, along with Dr Nerbert Schifter of Vienna and Dr Koen Brouwer of Amsterdam, a series of papers on bird longevity. The first, on Storks, has been published in the *International Zoo Yearbook*. Forthcoming shortly will be the next on Ibises and Spoonbills, to be followed in order by Herons and eventually all of the other families of birds.



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