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THE SUCCESSFUL BREEDING OF THE AMERICAN BALD EAGLE *Haliaeetus leucocephalus* AT FLAMINGO GARDENS AND ZOOLOGICAL PARK

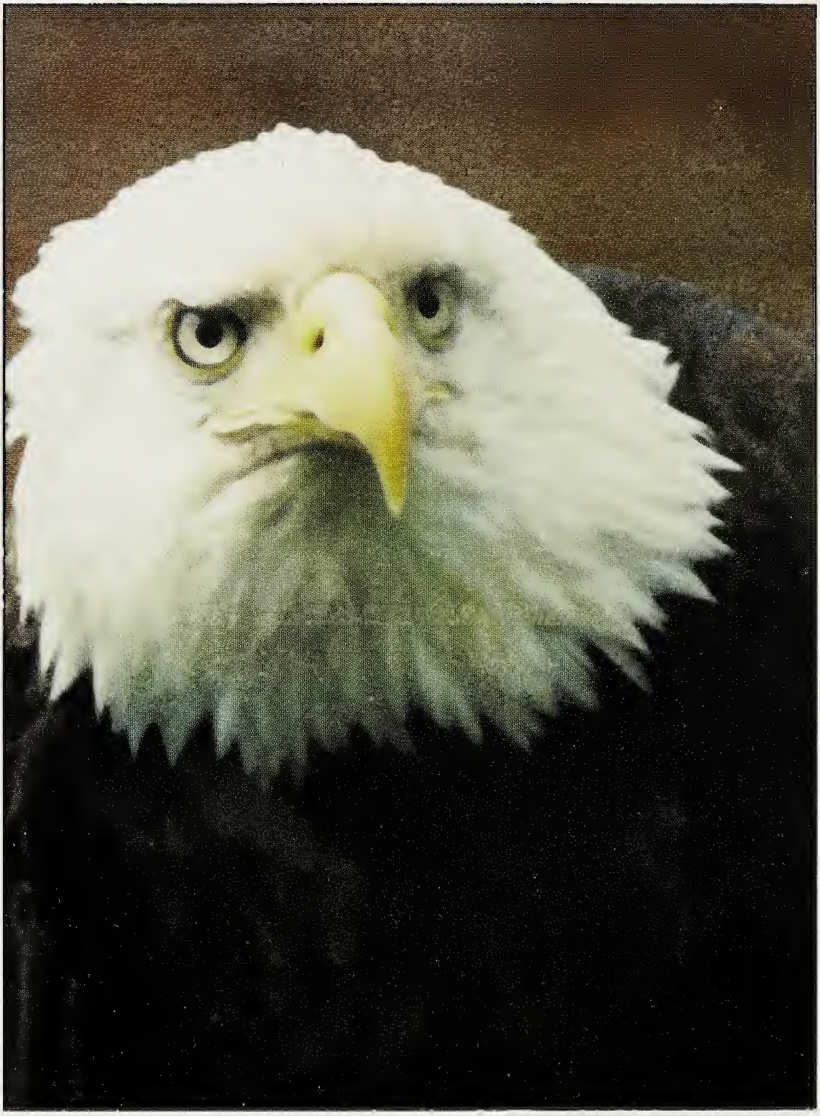
by Christopher Marler

Large birds of prey have always featured prominently in our collection here at Weston Underwood, Olney, Buckinghamshire, UK, and in the 1970s included Andean Condors *Vultur gryphus* and 10 other species of vulture and eight species of eagle. However breeding successes were minimal. Then in the late 1970s we arranged to receive two immature Bald Eagles from Ken Chisholm, the animal dealer in Montreal, Canada. These birds were injured and were imported on a salvage permit and they arrived at our quarantine area in 1980.

Subsequently when visiting Frankfurt Zoo, Germany, in 1982 during a Zoo Walk programme for the BBC World Service, I did a small piece on the zoo's successful breeding pair of Bald Eagles, which at the time of my visit were rearing two small chicks. It turned out that the latter were surplus to the zoo's requirements and the then Director, Richard Strauss, agreed to release them to me to join the two from Canada. The two young males, as they turned out, arrived here in 1983.

The Canadian and German birds were kept apart for observations until October 1985, when it was thought to be opportune to put the birds - two males and two females - with their respective partners. It was obvious that one of the females and one of the males were much better physical specimens and these two were put together. There was no aggression and after a few days they were seen sitting in close proximity to each other on the same perch. They continued to be agreeable to each other and in early March both were seen carrying nesting material to a nest site on a wooden platform about 2m (approx. 6ft 6in) from the ground in a covered corner of the aviary.

On March 20th 1986 a single egg was laid in the well-lined nest. It was not expected to hatch as the male was under four years of age and had more brown than white feathers on its head. Imagine my surprise therefore then when 34-35 days later I looked in the nest and saw a fluffy white chick



American Bald Eagle.

under its very attentive mother. Both the male and the female shared the incubation and also the feeding of the chick.

The chick grew well with such good parenting without any interference from us. The diet consisted of rabbits, day-old chicks, fish and any meat, such as stillborn calves, from the beef herds maintained on our farm. The young eagle flew the nest at about 60 days and was often seen on the floor

Christopher Marler

Adult and young chick.

Christopher Marler

Feeding chick.

of the aviary. At 70 days it could fly from one perch to the other in the aviary which measures 60ft long x 20ft wide x 12ft high (approx.18.2m long x 6m wide x 3.6m high).

My diary (see below) records the hatching dates for the 28 chicks all of which were reared successfully. As I write this in early March 2004 the Bald Eagles are nest building yet again and we are full of hope for this season. The total of 28 young reared (to date) is believed to be a record for a pair of Bald Eagles in captivity.

Breeding record of pair of American Bald Eagles

Year	Date hatched	Number hatched and reared
1986	May 23	1
1987	April 30 May 2	2
1988	April 29	1
1989	Two eggs laid both infertile	-
1990	April 23 April 27	2
1991	May 24	1
1992	May 2 May 4	2
1993	April 28	1
1994	April 30 May 2 May 4	3
1995	May 1 May 3	2
1996	May 2 May 6	2
1997	May 1 May 4	2
1998	May 9	1
1999	Two eggs laid neither hatched	-
2000	May 1 May 3 May 6	3
2001	May 4 May 8	2
2002	No eggs laid	-
2003	May 10 May 12 May 14	3

Christopher Marler

Offering food to chick.

As described above, the American Bald Eagle Haliaeetus leucocephalus, has been bred by Christopher Marler. This is probably the first successful breeding of this species in Great Britain or Ireland. Anyone who knows of a previous breeding is asked to inform the Hon. Secretary.

THE 2003 BREEDING SEASON - SOME DISAPPOINTMENTS

by Chris Bralsford

Wanting to have a go at breeding finches in cages and in the flights housing my Asian softbills, early in 2003 I purchased from a friend of mine two pairs of *Carduelis sinica*, which here in the UK are commonly known as Chinese Greenfinches. This species is also known as the Oriental Greenfinch and as the Grey-capped Greenfinch in the latest field guide to the region. The friend of mine had brought them the previous year at the National Exhibition of Cage & Aviary Birds. He had them paired-up in double breeding cages and they were very steady. In the past I had kept Black-headed Greenfinches *C. ambigua* and found them very nervous.

My present birds look very like our native European Greenfinch *C. chloris*, but are smaller, measuring about 5½in (14cm) in length. The male has a dull grey green head with a dark face mask, a warm brown back, a yellow to green rump and grey upper tail-coverts. The wings and tail are mainly black, with yellow 'flashes' on the wings and on the sides of the base of the tail. The female is a lot duller and browner on the head and face, also the sides of the base of the tail are not as yellow. The yellow on the wings is very distinctive when this bird flies. My juveniles were like the female except that the chest and belly were very streaked. The calls and song of this species are very similar to those of the European Greenfinch. It is described as common in the wild and can be found at high altitudes, so is ideal for keeping in outside aviaries here in the UK. In the winter flocks are found in paddy and grain fields, which is probably why they are trapped easily and large numbers have been imported over the last four to five years. In the wild they breed in April-May, so putting them down to breed in the last week of March 2003 seemed ideal.

In the treble breeding cage I placed a bracket at the front attached to the wire. On this I fitted a cup-shaped wicker basket and wired it tightly to the platform. In the front part of the bracket I drilled holes to secure conifer cuttings to provide seclusion. I also put cardboard on the cage front to provide additional security. In the treble breeding cage I put a wire dividing slide and kept the female in the double side and the male in the single side. I put coconut fibre, moss, sisal and animal hair in salad racks fitted at the front on the female's side. She started carrying nest material by mid-April and I watched the male start to feed her with regurgitated seed through the wire dividing slide. By the third week of April he was also singing and displaying to her, so I removed the wire divider. There was a lot of frantic chasing and the male mated with the female. A couple of hours later things

had settled down and within days a beautiful nest had been completed in the basket. A week later three eggs were laid, these were blue with brown speckles at the blunt end. The incubation period was 13-14 days, with the female doing the most of the sitting. I provided Orlux eggfood, lots of dandelion heads and leaves, also groundsel and any other weeds I could find. These were thoroughly washed and dried before being given to the birds. The chicks, which were constantly being fed by both parents, fledged at 13 days.

I used the same breeding method for the second pair which was also housed in a treble breeding cage. The two pairs produced a total of seven young. Sadly though, I lost six of them through 'going light', when they were six to seven weeks of age. 'Going light' is a dreaded problem with some finches and I wished I had used a sulphur drug when the chicks were being weaned. A friend gave me some sulphur and Baytril antibiotic but by then the problem had gone too far. To prevent this problem arising again, this year when the chicks are a few days old, I will start to put a sulphur drug in the water.

I also had disappointments with my two pairs of Japanese Robins *Erithacus akahige*. I placed one pair in a cage 7ft long x 3ft 6in x 3ft 6in (approx. 2.lm long x lm x lm) and the other pair in a flight l0ft x 4ft x 6ft high (approx. 3m x 1.2m x 1.8m high). I had put a half-open box at one end of the cage and used a pot plant to conceal it. Things started to happen in March, when the female started to flick her tail and solicit the male. After a couple of days she started to build a nest in the box. She used coconut fibre and grass, along with moss and animal hair. About a week later she started laying eggs, not in the box though but on the floor of the cage. She laid a total of four clutches of three eggs, all on the floor of the cage. I tried moving the box onto the floor and a box with a hole in it, but with no success. I phoned a lot of my birdkeeping friends for advice, most of whom thought it might be because the female was a young inexperienced bird or there had been a disturbance of some kind. Things came to a halt when they went into a moult in mid-May.

This left the other pair which had been outside all winter and had moulted into lovely birds. At the end of May the male was very vocal and chased the female around. At the beginning of June she started to build a nest in a half box. The male was seen several times treading the female but no eggs were laid and by the end of July both birds went into a heavy moult. The eggs laid by the female in the cage were blue in colour, a bit like those of the Common Starling *Sturnus vulgaris*, and seemed large for the size of the bird. This year I will try again to breed this lovely softbill. It is similar to the European Robin *E. rubecula* but the red on the breast is not as vivid. The male has a black gorget, which the duller coloured female lacks.

My Yellow-throated Buntings *Emberiza elegans* built two nests, one in a wicker basket low down in a Hydrangea and the other beneath a bush. The beautifully constructed nests were typical bunting nests a lot like those of the Yellowhammer *E. citrinella*. The male, which has a lovely song a bit like that of the Dunnock *Prunella modularis*, sang all day but I did not see any eggs in either of the nests. This year I will house the pair on its own.

The other near miss was with my Red-headed Tits *Aegithalos concinnus*. I kept four birds - I was unsure whether or not they were pairs - in a treble breeding cage. They were fed a nectar mix, which is I think very important to help keep them fit and healthy, buffalo worms and universal food. I also tried various fruits and salad items. In the cage I placed a waxbill wicker nest basket and covered it with plastic ivy. The birds settled down well, were very agile and seemed to love the set-up. In May I noticed that one of the birds was carrying coconut fibre and I also saw it dancing around one of the others on a twiggy perch. A little later in the week I was amazed to see two birds going into the basket with all sorts of nest materials I had provided. After a week the nest was completed. It was a beautiful nest, like that of the Long-tailed Tit *A. caudatus* in construction, and filled the whole of the basket. A week later I shone a small light into the nest and saw two very tiny eggs, which were white with very small speckles at the blunt end. Unfortunately though, the birds did not sit on them and this nesting attempt failed to progress any further.

Accounts of Gary Bralsford's 2003 breeding successes with the Chestnut-backed Thrush Zoothera dohertyi and the White-eared Bulbul Pycnonotus leucogenys leucotis or P. leucotis have already been published in the magazine (Vol.109, No.4, pp. 150-153 (2003) & Vol.110, No.1, pp.17-19 (2004)). His account of breeding the Red-crested Cardinal Paroaria coronata has yet to be published.

BREEDING THE GREY-CAPPED GREENFINCH *Carduelis sinica*

by Brian Massey

At a local bird auction in August 2001 I purchased three birds in juvenile plumage, which were described as Chinese Greenfinches. After consulting *A Field Guide to the Birds of South-East Asia* by Craig Robson (2000), I determined that the birds were Grey-capped Greenfinches *Carduelis sinica*. I housed them in a fully enclosed flight measuring 6ft x 6ft x 7ft high (approx. 1.8m x 1.8m x 2.1m high), with access to a shelter, and fed them a foreign finch mixture and mixed canary seed. When they had completed their moult it was clear that I had two males and one female. By early March 2003 the two males were bickering and competing with each other. In mid-March all three were moved to a planted flight. It measures 15ft x 10ft x 7ft high (approx. 4.5m x 3m x 2.1m high) and is open at the front, with plastic sheets covering half of the roof area. The previous autumn the flight had been constructed round an established cherry tree and was heavily planted, mainly with a species of honeysuckle *Lonicera nitida*, variety 'Baggesen's Gold'. Although honeysuckles are usually considered to be climbing plants, there are shrubby ones such as *L. nitida* which provide ideal nesting sites. I also provided some specimen conifers planted in tubs. Also introduced into the flight were a pair each of Pekin Robins *Leiothrix lutea* and Orange-headed Ground Thrushes *Zoothera citrina*.

Within days of being released into the flight, a nest made of dried grasses and lined with coconut fibres had been constructed in a *L. nitida* by the Grey-capped Greenfinches. Four eggs were laid and four chicks were seen in the nest on April 16th and had fledged by May 1st.

A second nest was quickly built, about 3ft (1m) above the ground, in a conifer. By May 7th, five eggs had been laid in it, with the female commencing to sit after the third egg had been laid. Chicks were seen in the nest on May 18th and all five had fledged by June 3rd. While the female was incubating the second clutch, both males were feeding the chicks from the first nest and although there was some conflict between the two males and one appeared dominant, both nevertheless contributed to the raising of the chicks.

In addition to the seed mixture described earlier, soaked seed was provided daily, mixed 50/50 with a proprietary eggfood. Because softbills also occupied the flight, a mixture of diced fruit and softbill pellets, plus Prosecto and livefood, were available.

The birds reverted to a *L. nitida* to build a third nest which was completed before the chicks in the second nest had fledged. In fact the fourth egg of

the third clutch was laid on June 4th which was the day after the fifth chick of the second brood left the nest. All four eggs of the third clutch were fertile and the first chick was out of the nest by July 4th.

A fourth nest was constructed in a conifer, however, it was a flimsy affair. The female laid the first egg on July 8th and I supported the nest with a wicker basket. The female laid a further two eggs, the first of which hatched on July 22nd, followed on successive days by the other two. However, the chicks progressively disappeared from the nest within six days of hatching.

About the third week in July, the fledglings from the third nest started to look off colour and lethargic. I introduced Intradine (sulphadimidine sodium) into the water at the rate of 2ml per litre, but despite this, three of the fourth round of chicks died. They died, I believe, either because their parents lost interest in feeding them before they had become independent, or as a result of 'going light'.

By the end of the breeding season, the female had laid 16 eggs and hatched 16 chicks. Three of these disappeared before leaving the nest and three died after fledging, possibly as a result of 'going light'; the remaining 10 were reared.

During the autumn, two birds, at different times, were found dead on the ground close to the wire. Both had puncture marks on the abdomen, which I suspect were caused by a cat or Sparrowhawk *Accipiter nisus*.

Before the onset of winter, all the remaining birds were transferred to a fully covered flight with access to a heated shelter. All survived apart from the original female, which died in January 2004.

The lessons I learnt from my 2003 experience with this species are:

1. The need to have double wire covering the aviary to prevent losses due to cats and/or Sparrowhawks. This I have now done.
2. Once first-round youngsters have became independent, the need to remove them from the aviary so that they are not a burden on their parents, which can then concentrate on rearing the second-round of chicks.
3. The need to introduce a sulphur drug into the water as a preventative, rather than waiting until problems occur.

I will start the 2004 breeding season with the two original males purchased in 2002, five males and three females bred in 2003 and one male and three females purchased during last winter. This will hopefully give me the opportunity to attempt to breed with six pairs.

Brian Massey is a member of the society living in Yorkshire. In 1991 he was the first person in the UK to breed the Yellow-throated Laughingthrush Garrulax galbanus.

NOTES ON THE RED-LEGGED HONEYCREEPER/ YELLOW-WINGED SUGARBIRD *Cyanerpes cyaneus*

by F. Barnicoat

Early in 1989 a dealer offered me a trio of these birds at a special price for a male and two females, few of the former having arrived here in South Africa. One of the females was in immature plumage, which I hoped might colour up into a male, but I lost this bird during the first winter through accidentally skipping the early morning nectar supply to its aviary. The adult female is with me still, so has by now notched up the creditable age of at least 16 years, during the last two of which she has developed an increasing number of cream coloured streaks in her plumage. Her eyesight seems not quite what it was, but she is still able to fly about and take an intelligent interest in life.

During her long lifetime she has raised five young, all of them inconveniently proving to be males. My experience with this species echoes that which has from time to time been recorded in the pages of the *Avicultural Magazine* and elsewhere, that given reasonable aviary conditions there is a fair chance of it breeding successfully and of living to a ripe old age. I think it is a pity that a concerted effort by enough breeders simultaneously to firmly establish a viable captive breeding stock has not been made on the lines that has achieved such success with, for example, many species of the Psittacidae and some of the Australian seedeaters. I suppose that a parallel situation exists in Australia with the exquisite fairy wrens *Malurus* spp. When I was there I was told that these birds have been found to be quite ready breeders in aviaries, but there is not much market for the offspring because of insufficient numbers of private aviculturists keen to take on the extra commitment required to keep and breed softbills. How sad.

When showing these birds to visitors, I have always felt rather uncomfortable using either of the English names attributed to this species. The red legs have never stood out with any male I have possessed, and the females (mine anyway) have had grey legs. Their under wing-coverts are pale yellow, but this shows only when they fly. What does stand out is the marvellous turquoise crown of the male, the feathers of which he can raise, and the colour of which so exquisitely contrasts with his brilliant cobalt blue body. The scientific name, generally overlooked by the layman, is however, appropriate, as both parts of the name are derived from the Greek word *kyaneos* (glossy blue), and somehow convey the idea of the scintillating dream of a bird in shades of glittering blue.

Because the feeding of this type of bird has been made so much easier in more recent years through the marketing of artificial nectar products in

Europe and the USA, I am hesitant to state my amateurish feeding methods; but I do so here because they have proved quite successful, and the cost of importing the excellent overseas products is prohibitive to all but the wealthiest of private aviculturists in my own, and possibly some other countries. My basic diet has always been a nectar mixture, prepared freshly each morning by adding to 300ml of warm water, a tablespoon of honey, a teaspoon of condensed milk and a tablespoon of one of the balanced nutritional foods marketed for human consumption under different names such as Complan, Sustagen, Ensure, Shape, etc. I have found that the birds like vanilla and strawberry flavoured ones, and try to alternate different makes.

To the above basic mixture I have always added one or more further additives (just a little on the edge of a knife), hoping that the taste of the mixture might be slightly changed, because I appreciate variety in my own food. I have used Bovril or Marmite very regularly, Spirulina and Barleygreen, which are both natural products sold in health food stores, and more recently one of the probiotics marketed for avian use. Barleygreen is a very expensive product, but did seem to make a positive difference as the successful breeding began shortly after the commencement of its use.

Honeycreepers are also fond of fruit. They are supplied with at least one piece, fresh every morning, placed well above ground level, snagged on a branch or a nail in a feeding table. Pawpaw (papaya), banana and pear are soft enough for them to tackle and are available most of the year. Their favourites, however, are mango and prickly (cactus) pear, and the raising of the young coincided with the relatively short season at the height of the summer of these two fruits, which would be scooped out to the skin.

The insect component of their diet has always worried me. For years mine refused to eat mealworms or termites to the point when I gave up supplying them. It seems they will live well enough without livefood, but will not breed successfully. When my pair first hatched two chicks I tried everything. Mealworms previously refused for years, were then taken with enthusiasm, provided they were alive and wriggling. Cut-up mealworms as recommended in one breeding account I had read were steadfastly refused. The honeycreepers seemed quite adept at sucking out the contents of the skin of even the largest mealworms. Initially I tried to supply only the tiniest mealworms and the softer white-skinned ones, but soon any mealworms had to be used as the birds consumed them at the rate of at least 20 twice per day, fed to them in a drinking vessel hung at perch level.

Years later, when I came to possess a pair of the delightful Purple species *C. caeruleus* I learnt to my cost of the dangers of overfeeding mealworms to honeycreepers. I attribute the loss of both these birds, which appeared to swallow the mealworms skin and all, to feeding mealworms excessively to

them in a misguided attempt to stimulate them to breed.

Fruit flies are probably a safer form of livefood for honeycreepers. These are easily provided by establishing cultures in plastic ice cream containers covered with wire netting to prevent access by the birds to the rotting fruit. The flesh rather than the skins of bananas was recommended to me for the production of fruit flies, and I certainly had clouds of them emanating from the cultures in almost no time in the hot weather that fortunately prevailed at the time my pair bred. I also found that as soon as chicks hatched my pair eagerly took the termites that were provided by putting into the aviary broken lumps of the mound and turning these twice daily.

Almost six years passed before my pair showed the slightest inclination to breed. In the course of this time the pair was moved to several different aviaries, the one the pair bred in measured 3.5m x 3m x 2m high (approx. 11ft 6in x 9ft 9in x 6ft 6in high), nearly half of which was taken up by the well-lit shelter containing a thermostatically controlled heater. The shelter door was shut at night only during the severest winter weather. The honeycreepers shared this aviary with a pair of Golden-shouldered Parakeets *Psephotus chrysopterygius*, and the two vastly different species never interfered with each other, and got along extraordinarily well together.

In the summer of 1993-1994 I decided to move the honeycreepers into a larger aviary with some growing vegetation in the hope of stimulating them into nesting. This was to no avail, although they had the aviary entirely to themselves. It had no heating, so as winter came on again they were moved back with the Golden-shouldered Parakeets. By then I felt they were unlikely ever to breed, but in addition to the dry branches put up for perching I fixed on one side of the shelter doorway a dry branch with a convenient fork about 1.5m (approx. 5ft) above ground level. In the fork I jammed a clump of dry bracken and in this during the hot summer of 1995 they started making a half-hearted attempt to build a cup-shaped nest, using only rather coarse dry grass. In response I supplied every sort of nest building material I could think of - unravelled sisal string, coconut fibre, cotton wool, kapok, soft green grass - but all were ignored. By the time the first egg appeared the nest had, however, been reasonably well rounded with dry grass.

I think the second egg was laid the day after the first, but as the female was sitting tightly I did not disturb her to verify this. The two eggs which were surprisingly large and round for such small birds, were pale greenish blue and so heavily spotted with medium to dark brown blotches as to appear predominantly brown. In the hot mid-summer days that followed, the female was frequently off the nest to an extent that caused me to wonder whether she was losing interest in incubating the eggs, but she always slipped quietly onto the nest just as darkness set in. The male never sat, but became very excited and bold whenever I approached the nest. I could see that the eggs

had darkened as if they were fertile, and they hatched on consecutive days, after an incubation period of exactly 12 days.

The chicks were very dark skinned with large heads and big gaping mouths, their beaks being almost as short as those of finches. They were very lively and grew rapidly. I was advised to use a product called Ringer's lactate (a clear liquid administered intravenously in human and veterinary critical care medicine) in the nectar, which I did roughly to the proportion of one part lactate to four parts of the usual nectar. I cannot say to what extent the addition of this contributed to the successful rearing of the chicks, but I have a strong feeling that it made a positive contribution.

I looked up two classic accounts of the breeding of this species published in the *Avicultural Magazine*, those by Yashmori Matsunaga of Japan in February 1929, and by Mrs Drake of Mylor, Cornwall in August 1934, and in both cases there were two chicks which fledged on the 13th day. As I watched my two chicks progressing quite slowly at first, I felt it would be impossible for them to fledge at so young an age. The pin-feathers of the wings began to develop from about day six, their beaks began to elongate and they seemed to feather almost overnight. They provided a beautiful sight with their large round black eyes as they crouched patiently in their tiny cup-shaped nest, which made it an easy matter to close band them with aluminium rings of the size used for Zebra Finches *Taeniopygia guttata*.

To my amazement they left the nest on the 13th day. Their beaks were not quite as long as those of their parents and they had short stumpy tails. They could fly well and both parents solicitously hovered about them, managing to get them to roost on the branches in the shelter from their first day out of the nest. Their plumage resembled that of their sage green mother, only somewhat duller and darker in tone. Initially their mother continued to feed them, but they very soon learnt to drink the nectar themselves and then to eat the fruit and mealworms. As there seemed to be slight differences in the plumage of the two young, I hoped they were a male and a female, but about six months later, as the days warmed up during the spring, both coloured up into gorgeous males.

Shortly after the two young fledged, a second clutch of two eggs was laid in the same nest with little reconstruction having having been carried out on it. Both were fertile, but they sank through the dry grass base of the flimsy nest and were chilled. No further breeding attempt was made in 1995, and through the winter, of course, the breeding male was in eclipse plumage.

In the high summer of the following year the pair commenced nesting on almost exactly the same date as previously. I had by then taken the precaution of firmly fixing a wicker cup-nest into the fork of the dry branch. A felt lining was sewn inside it. The honeycreepers took to these quite

readily and merely added a few more pieces of dry grass to round out the nest. In it during 1996 they raised first a single offspring and subsequently two more, under exactly the same husbandry that had proved successful in 1995.

Then the run of luck came to an abrupt end. The winter was a severe one, and arriving home very late one evening I accidentally shut the male outside the heated shelter. Such a fragile creature could not survive such a trauma.

All five offspring proved to be males, and I tried unsuccessfully to get the female to breed successfully with one or other of her sons. She repeatedly laid two eggs, usually twice per year, about the same dates each summer, and incubated so hopefully, but the eggs were always clear. I tried different mates with the same disappointing result. She laid her last clutch in 2002, and on that occasion the eggs were abnormally small.

About three years ago I was able to obtain a further imported female, and have tried since then to get another compatible pair to breed, but so far they have shown no inclination to nest. The longer I try to breed birds, the more is the importance and role of the compatible pair brought home to me, even with such a simply and readily propagated species as the Zebra Finch.

F. Barnicoat, who served as a Vice President of the society1980-1990, lives in Johannesburg, South Africa.

D. H. S. RISDON AWARD

After much discussion the 2003 award went to Andrew Owen for his account of the capture of eight Montserrat Orioles and their subsequent establishment and breeding at Jersey Zoo (see *Avicultural Magazine* Vol. 109, No.3, pp.116-124 (2003)).

DULCIE COOKE AWARD

The award for 2003 went to Martin Vince for his splendid colour photographs which illustrated the account of breeding and hand-rearing the Blue-winged Leafbird *Chloropsis cochinchinensis* at the Riverbanks Zoo and Garden by Angela Hardy (*Avicultural Magazine* Vol. 109, No.1, pp.14-21 (2003)).

REPORT ON THE IMPLEMENTATION OF THE WUYUAN PROJECT

by He Fen-qi

Introduction

In April 2001, Dr Roland Wirth, Chairman of ZGAP in Germany, visited Wuyuan, China, and signed on behalf of ZGAP and other overseas partners in France and the UK, a Memorandum of Understanding (MoU) with the Forestry Bureau of Wuyuan County (FBWC) on undertaking a three year collaborative project for the conservation of Courtois' Laughingthrush *Garrulax galbanus courtoisi* at Wuyuan. Accordingly, ZGAP together with other overseas partners, granted funds to the FBWC and the FBWC carried out field surveys as well as conservation management of Courtois' Laughingthrush in 2001-2003.

Activities in 2003

The 2003 breeding season came some 10 days later than usual, resulting in the birds returning to their breeding sites around April 16th-17th, the latest dates so far recorded. We soon organised some keen birdwatchers from Beijing, Shanghai and Hong Kong to survey the villages along the Le'an river in the hope of finding more breeding sites of this bird. However, we did not find any more birds and it seemed that no more suitable and preferred habitats remain in and around the villages we surveyed.

At the beginning of the breeding season, a New Zealand ornithologist Dr Robin Moorhouse, who was working at the Institute of Zoology as a visiting scholar, was also invited to Wuyuan to undertake field observations on the behaviour of breeding flocks of this laughingthrush.

Unfortunately, the rapid spread of SARS dramatically interrupted the field observations in late April and, when fieldwork was finally able to re-start, it was very late in June. It seemed that the Courtois' Laughingthrushes had a very good breeding season in 2003 - in previous years, it was found that some pairs would have a second clutch if they failed to rear their first clutch successfully, while in 2003, all the nestlings of the clutches we observed developed quite well and all the birds left their breeding sites more or less simultaneously. A TV film was made of the nestling rearing.

In late June another flock of these laughingthrushes was found in the yard of the administration of a town named Zhongyun. There was one nest, about 5m (16ft) above the ground, with two nestlings found in the canopy of a young introduced tree, *Platanus orientalis*. In late November, the author and others visited the area, but failed to find evidence of any more nests in the trees there.

In addition, a short survey was undertaken in late November seeking any non-breeding season flocks in the forests south of Zhongyun, but this proved fruitless. In late December, a further survey was undertaken in the same area and to other areas but again no birds could be found.

Status of Courtois' Laughingthrush in Wuyuan

Our present knowledge and understanding of Courtois' Laughingthrush comes mostly from observations on the breeding flocks. Results of censuses undertaken during the breeding season in Wuyuan are summarized below. The table lists the main breeding flocks at each site. These have remained fairly stable over the past three to four years. The Wuyuan population now numbers close to 200 individuals in total.

	Bingyinglin (village)	Shimen & Jinpan (villages)	Majia (village)	Taibai (town)	Zhongyun (town)
2000	45-50	?	?	50-60	?
2001	about 40	50-60	4	50±	?
2002	40-45	50-60	0	50±	?
2003	30-40	60-80	0	40-50	about 20

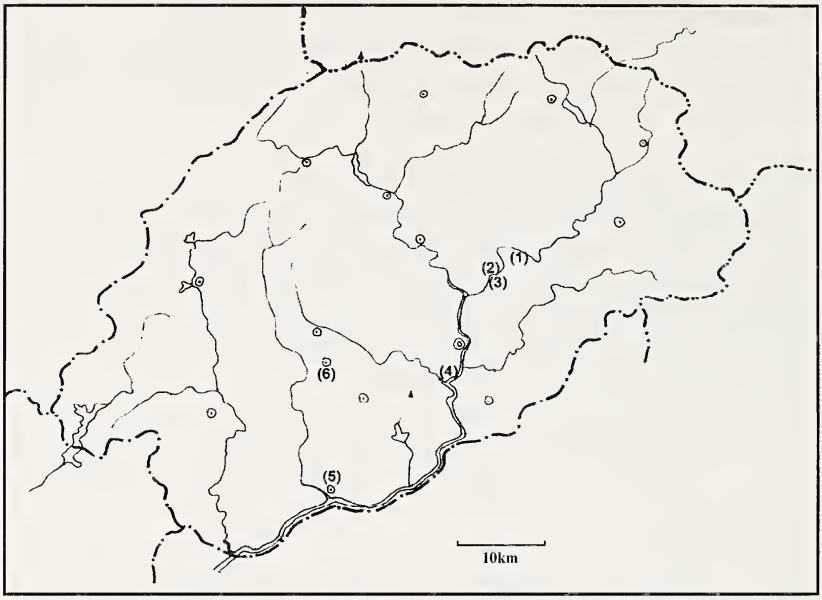
When looking at the sites chosen by breeding flocks, it might be thought that there are similar habitats at higher elevations in Wuyuan, however the laughingthrushes seem to prefer low altitude habitats, usually below 100m (approx. 300ft), to breed.

Before the flock was found at Zhongyun (site 6 on the map overleaf), it was thought that the breeding flocks were dispersed merely along the Le'an river (sites 1-5 on the map). The Zhongyun flock shows that Courtois' Laughingthrush has a much wider range in Wuyuan in the breeding season at least, though at present we are not quite sure if the birds in the Zhongyun flock are mostly breeding birds, or not. Furthermore, may the wider range in the breeding season increase slightly the possibility that the bird resides in Wuyuan throughout the year?

With the finding of the new flock at Zhongyun, it might be considered that due to the size of its range (c. 800sq km (approx. 310sq miles)) and the size of the population, that the Wuyuan population is somewhat independent and may be self-sustainable, if the current habitat can be well protected and preserved.

Conservation management enforcement

The effort to establish more Small Protected Areas (SPAs), specificially for the conservation of Courtois' Laughingthrush, was initiated towards the end of 2001 under a grant supported by the WWF - China Program. Three



1. Bingyinglin (29° 19.441' N 117° 54.014' E)
2. Shimen (29° 18.490' N 117° 52.765' E)
3. Jinpan (29° 18.282' N 117° 52.971' E)
4. Majia (29° 12.546' N 117° 50.712' E)
5. Taibai Town
6. Zhongyun Town

SPAs were provisionally established in August 2002, around the villages of Shimen, Jinpan and Majia.

The FBWC signed MoUs with the committee of each village concerned and, based upon these, the local government of Wuyuan County issued papers for the formal and official approval of the establishment of these SPAs.

Metal boards were set-up in each SPA bearing this notification and announcement. Now all the villagers realise that the village in which they live is not only their hometown, but also supports a very special bird.

There are plans for an SPA at Zhongyun before the 2004 breeding season begins.

Publications

He Fen-qi, Xi Zhi-nong. The Yellow-throated Laughingthrush (*Garrulax galbanus courtoisi*) in Wuyuan. *Chinese Zool. Journal* 37,5:82.

Hong Yuan-hua, Zheng Pan-ji, Liu Zhi-yong, He Fen-qi. Rediscovery of the Yellow-throated Laughingthrush in Wuyuan, SE China. *Zool. Research* 23,5:383-404.

He Fen-qi, Roland Wirth, David Melville, Hong Yuan-hua, Zheng Pan-ji, Wang Xia-zhi, Wang Gui-fu, Liu Zhi-yong. Courtois's Laughingthrush *Garrulax galbanus courtoisi*: a bird showing how an endangered species can live in close proximity with humans. *Oriental Bird Club Bulletin* 38.

Please note that of the above three publications, the first two are in Chinese.

Summary

The field studies have revealed new knowledge about this bird, especially about its bio-ecological habits during the breeding season, and have improved our understanding of its present status.

Threats to it, mainly as the result of human disturbance, have been reduced by conservation management, which has produced a safer environment for the birds to inhabit and in which to breed.

Nevertheless, we quite understand that there is much we still need to learn, especially concerning the population viability of this bird. Hence there is the need for continuity of long-term monitoring to ensure the survival of Courtois' Laughingthrush.

Acknowledgements

The FBWC heartily appreciates the assistance of its overseas partners - GZAP in Germany, CEPA in France, Chester Zoo, Leeds Castle Aviaries and others in the UK - in providing generous support and collaboration on this project and it would like to take this opportunity to draw attention to the need for future support and collaboration on the conservation of Courtois' Laughingthrush.

Funding

During 2001-2003, a total of US$9,000 (approx. £5,000) was transferred from the overseas organisations to the FBWC. Expenses for the project in 2001 totalled roughly US$2,135 (about £1,180); in 2002 roughly US$4,260 (about £2,360) ; and in 2003 about US$2,605 (approx. £1,440).

The Avicultural Society contributed £250 (approx. US$450) in 2003 and plans to contribute the same amount in 2004. The society is in possession of a copy of the accounts for 2001-2003, certified by the Treasurer of the Forestry Bureau of Wuyuan County. These can be seen by members on request.

THE SOCIETY'S CONSERVATION/FUNDING PROGRAMME

Hon. Secretary and Treasurer Paul Boulden recently had the privilege of visiting Bristol Zoo Gardens to present to Director Dr Jo Gipps OBE, a cheque for £250 (approx. US$450) from The Avicultural Society, towards the zoo's Negros project in the Philippines. All money raised is being used to establish a captive breeding centre there and to educate local people to appreciate the wildlife of their island.

Of special concern is the plight of the Critically Endangered Negros Bleeding Heart Dove *Gallicolumba keayi* endemic to Negros and Panay Islands. One of the aims of the project is to encourage hunters to donate captured wildlife to the centre, which already holds one Negros Bleeding Heart Dove. The major threats to the five *Gallicolumba* spp. (four of which are classified as Endangered or Critically Endangered by the IUCN) are hunting and deforestation. Donations to the project can be sent to: Neil Maddison, Head of Conservation Programmes, Brisol Zoo Gardens, Guthrie Road, Clifton, Bristol BS8 3HA UK (E-mail:nmaddison@bristolzoo.org.uk).

As well as the above sum and a further £250 (approx. US$450) towards continuing research on Courtois' Laughingthrush *Garrulax galbanus courtoisi* in China (see pp. 64-67), the society is continuing to help fund hornbill research in Thailand and has given £250 (approx. US$450) to the Wetlands and Wildfowl Trust to help fund the satellite tracking of Lesser Flaminogs *Phoeniconaias minor* in the Rift Valley of East Africa. In addition, we have given financial support towards the cost of distributing The Foreign Bird Federation (FBF) *REGISTER OF BIRDS BRED IN THE UK UNDER CONTROLLED CONDITIONS FOR THE YEARS 1999-2002* and have agreed to give a further £100 (approx. US$180) towards the cost of distributing the 2003 register.

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AUTUMN SOCIAL MEETING

On Saturday September 18th the society is holding its Autumn Social Meeting at Marwell Zoological Park, Colden Common, Winchester, Hampshire. All members are welcome to attend and may bring guests. First opened to the public on May 22nd 1972, Marwell Zoological Park specialises mainly in large mammals but also has a good collection of birds.

UNRECORDED HEAT STRESS POSTURE AND FEEDING HABIT IN CAPTIVE RED-TAILED BLACK COCKATOO *Calyptorhynchus banksi*

by Paolo Bertagnolio

According to Simmons (1986), when the ambient temperature rises above the bird's zone of thermoneutrality the net heat flow will be from the environment to the bird, causing heat stress and the danger of enforced hyperthermia. Under these conditions birds may react passively by avoiding the sun and its full overheating effects, seeking a cooling microclimate such as a shaded spot, and by restricting their activities to the cooler hours of the day. But this may not be sufficient, and then they must perform positive thermoregulation in order to rid themselves of excess heat or at least to reduce the gradient of heat gain through cooling behaviours of various types (heat dumping), depending on local conditions and the bird species involved. In convective cooling dry heat is lost to the air either freely or through the action of the wind (forced convection or radiation cooling).

When attempting to cool themselves birds often adopt distinctive heat stress postures, exposing bare areas in the shade, gaping and panting. Parrots are known to adopt very simple defence actions. Those living in tropical countries suspend their activities during the middle of the day, resting on a shaded branch, pressing the contour feathers down and lifting the closed wings.

In extremely hot summers in Rome (e.g. the one of 2003), when at noon the ambient temperature may unusually approach 40° C (104° F), Red-tailed Black Cockatoos have been occasionally observed performing a distinctive cooling posture. The birds revert one of their wings so that the upper surface rests on the perch in an almost horizontal position, the tip pointing forward, the carpal edge backward, thus exposing to the air the thinly feathered underside of humerus and flank. The first time I noticed this strange posture I got the unpleasant impression that the bird involved had a broken wing, but when I approached the aviary the parrot immediately reverted to its normal standing position.

By the way it seems quite unusual for birds like *C. banksi*, whose range extends to hot inland Australia, to have developed black plumage that absorbs (rather than reflects) the sun's rays. As however suggested by Marder (1973) for the all-black desert living crows, this colour may help in avoiding excessive heat loading from solar radiation, by allowing the outer surface to absorb heat and then loosing it by convection, thus preventing the penetration of the heat to the body proper.

Another odd behaviour of captive *C. banksi* involves feeding. Differently

from other parrots these cockatoos husk sunflower seeds and swallow the content whole. During the day a resting bird can be occasionally observed while performing anti-peristaltic movements. Soon afterwards a small amount of food is pushed backward to the mouth and regurgitated onto the perch. The softened seeds are then picked up one by one and carefully 'masticated' before being definitively swallowed in the form of mush.

The first time I had the opportunity to observe this strange behaviour, which is reminiscent of ruminant herbivores, I thought it could be ascribed to a digestive problem of the bird involved. Later I realised that this procedure was regularly performed by both individuals then at the CSCP (Centro per lo Studio e la Conservazione degli Psittaciformi), as well as by an old female at Rome Zoo, as reported to me by the former Curator Maurizio Picone.

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METABOLIC BONE DISEASE AND GENERAL LEG DEFORMITIES IN CHICKS - CAUSES AND PREVENTATIVE MEASURES

by Louise Peat

During the process of imputting historical data on to our computer system here at the Cotswold Wildlife Park, I noticed how often metabolic bone disease (MBD) had occurred in chicks of various species in our collection. I am sure that the majority of members have come across MBD at some time during the course of their bird keeping. It is a common problem with long-legged species, e.g. cranes, storks and seriemas, and although it does occur in naturally (parent-) reared chicks it is much more commonplace with artificially reared chicks.

I have never come across a paper which encompasses the problem over a broad spectrum of bird species, so here I have set out to compile as much information as possible about the disease, noting how it can affect each species and the measures that can be taken to prevent it.

Metabolic bone disease

Metabolic bone disease (MBD) is merely a category heading for a variety of disorders, including rickets, osteoporosis and hypocalcaemia. It is a serious disease that results in severe crippling or death and is caused primarily by a diet deficient in calcium. It can affect young and old of most bird species. Diseases of the intestine, liver, kidneys, parathyroid gland and bones can all lead to the development of MBD, and anything that reduces the absorption rate of calcium, a vitally important element of life, will ultimately lead to problems.

Calcium is required in the diet in larger amounts than any other mineral and its absorption by the body is linked to phosphorus and vitamin D, so it is essential these nutrients are available in correct amounts to enable the proper utilization of calcium. An excess of either calcium or phosphorus will also lead to MBD, so there is the need to be very aware that over supplementing diets can be equally damaging. An excess of phosphorus will lead to low levels of calcium in the body, and equally devastating, an excess of calcium can lead to kidney failure and gout.

It can be difficult to judge whether we are getting the balance right. There is more than enough information available to write a book on the subject, yet most avicultural literature offers only a passing paragraph. The areas I am most interested in are MBD and general leg deformities in growing chicks. After seeing the effects of MBD problems first-hand, one of the questions I have asked myself is why when everything goes well one year

with parent-rearing, do we get chicks with splayed legs in the nest the following year, having used exactly the same husbandry methods? The same appears to apply with hand-rearing, where having reared a species successfully, we can use the same diet and techniques again and end up with chicks with leg deformities. Why despite all our efforts do pheasant chicks hatched from artificially incubated eggs have leg problems?

I hope to try to answer some of these questions and would like to invite comments and would welcome any additional information members may be able to provide.

Hatch deformities

In the cases of chicks hatching with deformities, we should start by looking at the actual incubation of the eggs, as many problems can occur at this time. Inadequate turning, rough handling, incorrect temperatures and humidity, can all cause prolonged hatching. But is there more to it? Can we go further and say that contributing factors could be the nutrition, age and health of our breeding stock? As a rule we take eggs and chicks only from birds that cannot or will not incubate their own eggs and rear their own young. Those that exhibit such problems are often older pairs and inexperienced young pairs. This could also be a contributory factor.

The majority of birds with problems have in my personal experience been pheasants. It is quite common to see adult Galliformes with crooked toes, and twisted legs and deformities of the beak are also not uncommon. Many of these problems can with a lot of time, effort and encouragement be corrected when the birds are young.

Generally if you feel your incubation techniques are adequate, you should look carefully at the health and nutrition of your adult birds. If they are not getting the correct nutrients from their diet their reproduction may be affected. It does appear that a deficiency of manganese can result in poor bone formation in the skeleton of the embryo and this can account for mortalities in the last third of the incubation period.

Turacos

I have seen MBD in both parent-reared and artificially reared turacos. In the past it was much more prevalent in hand-reared birds, but since the demise of the pawpaw and pinkies hand-rearing diet, it is less widespread. This diet was abandoned initially as a precaution against iron storage disease, but can almost certainly be considered as having been a contributory factor in the incidences of MBD in turacos. Pinkies are low in calcium and high in protein, resulting in rapid growth without the adequate levels of calcium needed for proper bone development. Hand-rearing diets for turacos have come a long way since then.

There are still occasional problems with splayed legs with turaco chicks,

which if not caught early enough can result in fatalities. In most cases these can be prevented by using the correct substrates to line the nests, both for parent and artificially reared chicks. Avoid items that they can get their legs stuck under, materials they can get their claws trapped in, and slippery surfaces on which they cannot get a proper purchase. In the case of parent-reared chicks I have used carpet to line the nests, as this can be thrown away after each clutch and fresh carpet used to re-line the nest. In the case of our hand-reared chicks we have recently begun using Astroturf. This is easy to keep clean and offers the chicks a much better surface on which to get a proper purchase.

Another problem can be overfeeding, turacos do not have a crop so it is difficult to visually judge the correct food intake, and it is therefore always wise to weigh feeds to avoid overfeeding and unnatural growth acceleration. Exercise is also a factor, helping to strengthen muscles and aid bone development. We positively encourage chicks to work for their food, making them stretch for and chase after items of food. As soon as they are old enough, chicks are taken outside, initially just for short periods, with the length of time being increased as the chicks become stronger and more confident. This continues until they are independent and capable of being left in the aviary.

Sunlight is an important source of vitamin D_3, which is produced exclusively in birds' bodies when ultraviolet rays transform vitamin D precursors in the skin into vitamin D_3. This can also be achieved by using an artificial UV light source. There does though need to be a level of vitamin D within the body in order to produce vitamin D_3. Vitamin D_3 is essential in maintaining the absorption and excretion levels of both calcium and phosphorus within the body.

Obviously in the case of parent-reared chicks we have much less control over what happens to them, having said that, leg deformities are infrequent with parent-reared turacos. It can be difficult to monitor what parent-reared chicks are being fed, especially in a mixed aviary situation in which multiple food items are available.

Storks

MBD is much more commonplace with long-legged bird species, with storks being amongst the more vulnerable. They require a much more protein-rich diet, as the result of which the chick's growth rate is rapid and it is vital that the birds receive the correct ratios of calcium, phosphorus and vitamin D.

The consequences of MBD in stork chicks are horrendous, with the onset being extremely rapid and therefore very difficult to correct. The initial signs are leg twisting and bending, poor appetite and weak bones that fracture very easily. This problem has been well documented with these birds. Storks

are not easy birds to breed, which makes it even more devastating when we loose chicks to this formidable disease.

Attempts have been made to treat birds once the disease has presented itself. Injectable calcium supplements are a non-aggressive form of treatment, while a more aggressive form of treatment can involve bone-pinning. The latter is highly risky, involving as it does already fragile bones and may well interfere with the bird's future development. The chances of this kind of surgery being successful are slim, and will probably just result in prolonging the bird's suffering.

Once again prevention is far better than cure. The importance of research into both hand-rearing and parent-rearing diets cannot be overstressed. Proper research at the start of the breeding season will prepare you for most eventualities, which will hopefully lead ultimately to an increased success rate.

MBD is equally prevalent in parent-reared storks and may be the result of inadequate diets or because the parents are inexperienced birds. It does appear that certain species are more prone than others to MBD. A classic example of this occurred here at the Cotswold Wildlife Park, where the European White Storks *Ciconia ciconia* and the Black Storks *C. nigra* both received the same diet, but whereas the White Storks thrived on this diet the Black Storks one by one succumbed to various degrees of MBD. Because of the problems we have encountered with artificially reared Black Storks, we are looking into developing a more successful rearing diet and intend to share our findings with others interested in keeping and breeding this species.

Cranes

Crane rearing is very different from stork rearing in that crane chicks are precocious (remarkable for their early development) and require a much less protein-rich diet and have a slower growth rate. I have not heard of MBD occurring in naturally reared chicks, but have heard of a case with a foster reared bird and have experience of it with artificially reared birds.

Perosis, also known as chondrodystrophy or slipped tendon, seems to pose a greater risk. It can be a genetic problem but can also be caused by a deficiency of one or more of: choline, manganese, zinc, copper, niacin, biotin, pyridoxine, vitamin E, vitamin B_{12}, folic acid or a calcium and phosphorus imbalance. The symptoms are swelling of the hock joint, shortening of the leg bone and tendon slippage from the hock joint. The bird will present with a slight limp that will gradually worsen until the bird is eventually unable to put weight onto the limb. Perosis is also well documented in ratites, waterfowl and pigeons . The mineralization of the bone is not affected and from all I have read, it appears that a deficiency in manganese and an excess of calcium and phosphorus are the main causes.

Along with a balanced diet, exercise is a vital component in the successful rearing of cranes and it is the principal preventative measure that can be taken to avoid leg deformities with these species. It is important to start early and get crane chicks outside running around as soon as possible.

Other species affected

I have first-hand experience of MBD in all of the three families above. It can though also effect many other species and I have heard of it occurring frequently with ratites, birds of prey, seriemas, and to a lesser extent with parrots, pigeons, flamingos and even starlings.

Rearing protocols

Regardless of the species involved, I believe that common sense and well thought out rearing protocols are the best way to combat MBD. In our rearing room we have recently installed ultraviolet lights, and it will be interesting to see what if any affect these have on our rearing results.

At the start of each breeding season it is always prudent to review the previous year's successes and failures, and look at ways of improving results, including:

Reviewing the health of all adult breeding pairs.

Reviewing the nutrition of all breeding pairs.

Examining the condition of all incubation equipment.

Reviewing rearing diets, including looking at successful rearing diets used in other collections and comparing their success rates with your own.

Taking a careful look at nest baskets, nesting and rearing materials and substrates, etc.

Planning exercise routines and ensuring you have adequate space and facilities available.

Conclusions

I am sure that MBD will continue to be a problem for bird keepers, but perhaps by being more open and freely discussing our successes and failures with other interested parties we can help each other learn more about how to keep this problem at bay.

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THE JAPANESE WAXWING *Bombycilla japonica*

by Jim Jerrard

Visiting the autumn bird sales at Stafford in 2002, looking for something different for the 2003 breeding season, other than birds of the thrush family, I found a small dealer with six or seven Japanese Waxwings *Bombycilla japonica* which took my fancy. Their plumage did not look too good, but otherwise they seemed in pretty good condition. I asked the dealer about sexing them and he said he thought that the males have a longer and more pointed crest than the females, and the males are more brown than grey. After studying the birds for a few minutes, I decided that it was impossible to distinguish the males from the females. Because of the difficulty of sexing them and the fact that their plumage was in poor condition, the dealer offered to drop the price a little. I purchased four of them and on getting home with them, put them into two cages in a spare room. I gave them food and water and left a dim light on throughout the night.

The next morning the birds were very active, so I took them out to my bird shed and transferred them into two 6ft (approx. 1.8m) long flight cages. After bathing daily for a week, their plumage started to look much better and the missing feathers started to grow again. By the end of January their plumage was in top condition, but I was still unable to sex them. In February a friend phoned to find out how I was doing with them, and told me that in *Birds of Russia* it states that males have reddish-brown vent feathers and females have fawn-brown vent feathers. After our conversation I went and examined my birds and decided that I had three males and one female. A week later I was lucky enough to purchase another female from Armers of Bamber Bridge.

In mid-March I put two pairs out into 9ft x 3ft x 6ft (approx. 2.7m x 1m x 1.8m) breeding flights and set about trying to bring them into breeding condition. I provided both pairs with softbill food and fruit, with livefood added, but to my surprise they would not touch the mealworms or anything else that moved, though they did eat maggot chrysalis.

In May the male of one pair was seen pushing the female to one end of the perch, then she would fly back and he would start again to push her along the perch. This went on for a day or two, after which the pair started to pass bits of twig to each other and then in time this changed to bits of fruit. By the end of May they were playing leapfrog on the perch and feeding each other, soon after which mating was seen.

On June 2nd I decided to provide the pair with an old nest that had belonged to a pair of Blackbirds *Turdus merula*. I put up another in the flight housing the second pair, even though this pair had yet to be seen

performing any courtship behaviour. On June 10th, the male of the first pair started lining the Blackbird nest with coconut fibre and sisal, and later animal hair was added. The female did little other than shape the nest to her liking. The first egg was laid June 19th. The complete clutch consisted of five eggs, which were blue-grey with brown and black spots. The first egg hatched July 5th and two hatched July 7th- 8th. The fifth egg failed to hatch.

By July 10th two of the chicks had been lost, but the remaining two seemed to be doing well, being fed mainly by the male with regurgitated buffalo worms and eggfood until they were a week old, when I also provided waxworm grubs twice a day, which were swallowed whole by both parents and then fed to the chicks. I ringed the two chicks at eight days old with IOA size K rings. When the chicks were ten days old the male started to re-line the nest and in doing so tipped out one of the chicks and as a result it died. The remaining chick continued to thrive and left the nest aged 16 days on July 21st. It was independent at 30 days old.

By July 26th the female had laid again and this time produced a clutch of four eggs. The first hatched on August 10th and the other three hatched on consecutive days. The last chick to hatch died the next day followed by two more, each of which were removed from the nest by the parents. On August 20th I went into the flight and immediately sensed all was not well; the female was on the nest, but there was a nasty smell and on flushing the female off the nest, I saw that the remaining chick was dead. The pair made no further attempt to nest in 2003.

The second pair did not start nesting until June 28th and the first of four eggs was laid on July 11th. All four eggs hatched on July 27th. On entering the flight on July 30th, there was a pungent smell and on flushing the female off the nest, all four chicks were dead. This was the only breeding attempt by the second pair in 2003.

On leaving the nest the young waxwing was grey, which was darker on the crest, wings and tail, which had a red tip; the breast was light grey, fading to white on the belly, and the flanks were heavily streaked with dark grey. After moulting it looked a little more like its parents and had a faint wing-bar. The vent feathers were light brown, leading me to believe that it was a female.

The only sounds I have heard from my waxwings are a very low song in the breeding season, like that of the Blue Tit *Parus caeruleus*, and a "seeping" sound in the autumn and winter.

I have found them to be good aviary birds that are easy to cater for and are peaceful with other birds outside the breeding season. As they are hardy, heat is of little importance to them and all they need in the winter months is a diet of fruit, berries and a softbill food low in fat, as waxwings are prone to obesity. My birds are not too fond of soft berries, such as raspberries and

those of elder and bramble, instead they prefer those of rowan, hawthorn, cotoneaster and firethorn. I have yet to try them on those of privet and ivy.

Last year was the first year I had kept waxwings and although only one chick was reared from the 12 eggs that hatched, I learned a lot about my birds. The first pair lost all but one of its chicks, mainly I think because the female began sitting as soon as she had laid the first egg, as a result of which the older chicks got most of the food. With the second pair, the female did not sit until the full clutch was laid and as a result, all four chicks hatched on the same day. Unfortunately, they were all found dead at the same time.

The only chick to be reared successfully (by the first pair) has indeed proved to be a female and I have paired it with my spare male, so that I have three unrelated pairs for the 2004 breeding season.

Jim Jerrard is a relatively new member of the society who lives in Yorkshire. In 1995, he was first in the UK to breed the Black-headed Greenfinch Cardeulis ambigua and the following year was first in the UK to breed the Dusky Thrush Turdus naumanni eunomus.

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SEEDEATER CONVENTION

The Queensland Finch Society Incorporated's Second Triennial International Finch and Seedeater Convention is to be held April 29th-May 1st 2005 at Riverglenn, described as a large, state of the art venue, surrounded by rainforest and located on the banks of the beautiful Brisbane River. Registration forms are available from: The Convention Registrar, PO. Box 911, Morayfield, Queensland, Australia 4510. Tel/Fax:+617 5498 9914/E-mail:indruss@bigpond.com

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HORNBILL CONFERENCE

The Ground Hornbill Research & Conservation Project, Three Cities Game Lodges, South Africa, and the Hornbill Research Foundation, Thailand, November 7th-9th 2005 will host the Fourth International Hornbill Conference at Mabula Game Lodge, South Africa. The principal theme of the conference will be The Active Management of Hornbills and their Habitats for Conservation. There will also be a general session to report on other aspects of hornbill biology and a separate workshop by the IUCN and BirdLife Hornbill Specialist Group to identify conservation priorities. Further details are available by e-mail:hornbillconference2005@ yahoo.co.uk

BOOK REVIEWS

HANDBOOK OF THE BIRDS OF THE WORLD (Volume 8)

With publication of the ninth volume imminent, this monumental series is on course to speed up the rhythm of production with the aim of publishing one volume a year which will make it possible to complete the series within the originally projected time frame. This latest volume is the first devoted to passerine species and the publishers say it contains more pages, plates and colour photographs than any of its predecessors and add that it will involve "…..a significant step forward in terms of the quantity and quality of published information readily available about these birds".

Volume 8 covers nine families - Broadbills, Asities, Pittas, Ovenbirds, Woodcreepers, Typical Antbirds, Ground-Antbirds, Gnateaters and Tapaculos. Owners of previous volumes will be familiar with the layout and style. Suffice to say that individual families are dealt with by specialists who have produced concise but informative material and contributed a good deal of hitherto unpublished information about various species.

Successive volumes have managed to keep abreast of much new information which is included in appropriate sections. Thus I read that the White-masked Antbird *Pithys castanea*, previously known only through a single specimen collected in Amazonia in 1937, had been rediscovered in Perú in 2000. A splendid photograph of it accompanies the text.

As reviewers have lavished so many superlatives on the word content of successive volumes I would like on this occasion to draw attention particularly to the photographs which so admirably complement the text for, Volume 8 like its companions, is not only an invaluable reference work but also, by means of the contributions of both artists and photographers, a work to be thoroughly enjoyed.

There are a number of excellent photographs of pittas including the Garnet *Pitta venusta*, Red-bellied *P. erythrogaster*, Giant *P. caerulea*, Ivory-breasted *P. maxima*, Blue-banded *P. arquata* and Superb *P. superba*. But pride of place must go to a splendid photograph of a Gurney's Pitta *P. gurneyi* at its nest in the Khao Nor Chuchi Wildlife Sanctuary in southern Thailand. Caption notes confirm that this Critically Endangered species was rediscovered in Thailand in 1986 some 34 years after it had apparently disappeared in that country.

Broadbills are well represented including a number of the rarer species such as Hose's *Calyptomena hosii* and Vissayan Wattled *Sarcophanops samarensis* - the first which is classified as Near-threatened, the second Vulnerable. I liked photographs on facing pages of the Green *C. viridis* and Long-tailed Broadbills *Psarisomus dalhousiae* looking snug as they peer

out of their pocket-shaped nests.

Handbook of the Birds of the World Volume 8 is available from Lynx Edicions, Montseny, 8, E-08193, Bellaterra, Barcelona, Spain (Website: www.hbw.com) and from good booksellers. At £110 it is not inexpensive, but you get a lot for your money.

Frank Woolham

FABULOUS FEATHERS, REMARKABLE BIRDS

Fabulous Feathers, Remarkable Birds by Rosemary Low is a 370-paperback with numerous black and white photographs throughout and an additional section of colour photographs. Full of interesting facts and figures, news items and the author's personal observations and experiences this is on one level a potpourri to dip into and on another a heartfelt plea for bird conservation. Nigel Collar's foreword and Rosemary's introduction both emphasise that an appreciation of the joy that birds can bring us fuels human determination to fight for and assist in their conservation worldwide. It is people that are the main threat to bird conservation but equally it is only people who will work to ensure the survival of our threatened birds.

The book is divided into three parts. The first part entitled Beauty, Love and Endurance includes accounts of some of the world's most beautiful and bizarre birds, and includes a chapter devoted to the fabulous and remarkable birds of paradise. Other aspects of bird biology including migration feats, acute vision and hearing, memory, instinct and learning and individual bird behaviour are also touched on.

The second part, The Struggle for Survival, gives examples of some of the threats to birds including pesticides, hunting, introduced predators, intensive agriculture and habitat loss. Island birds are especially vulnerable and one chapter devoted to Island Life includes examples from the Seychelles, Madagascar, Hawaii, the Philippines and other islands.

The final part of the book, A Helping Hand from Man, looks at ways that we can help the survival of birds and includes ways that people can support bird conservation. Examples include the educational campaign on St Lucia promoting pride in the St Lucia Amazon Parrot. In the final chapter Rosemary quotes Paul Butler in arguing for sustainable development and for control of human population growth.

Rosemary is an aviculturist and conservationist and here reveals an interest in bird conservation that goes well beyond the boundaries of aviculture. Whilst aviculture and conservation are not incompatatible the unsustainable trade in wild caught birds and their products is a different matter. Rosemary illustrates this through for example the case of the Red and Blue Lory in the pet trade and the trade in nests of Edible-nest Swiftlets for bird nest soup.

Many of the birds and people featured in this book are familiar at least by name to aviculturists and zoo biologists. Parrots and birds of paradise feature on the cover and in the book but facts and stories about many other birds are also covered. Accounts are included of Carl Jones' work with the Mauritius Kestrel, Pink Pigeon and Echo Parakeet and Ron Merton's work with the Kakapo. Less well known are the stories of the recent extinction of the Guatemalan Giant Grebe and the Colombian Grebe.

If you like birds you will enjoy this book. I did.

Fabulous Feathers, Remarkable Birds (ISBN 1-903-138-49-3) is distributed by Rosemary Low, Dept. A, PO. Box 100, Mansfield, Notts. NG20 9NZ, UK. Price £14.50 post paid in the UK, £15.50 (¤ 22) post paid to Europe. Cheques should be made payable to Rosemary Low.

Roger Wilkinson

BIRDS OF BELIZE

Birds of Belize by H. Lee Jones, illustrated by Dana Gardner, another in the Helm Field Guide series, was received for review shortly after the same publisher's *Birds of the West Indies*, which I reviewed in the previous issue (*Avicultural Magazine* Vol.110, No.1, p.41 (2004)).

The present guide is bigger both in page size (230mm x 155mm (approx. 9in x 6in) and thicker in that it runs to 317 pages. It covers 573 species and has 56 colour plates. This is just nine more species than in *Birds of the West Indies*, illustrated on fewer colour plates. The real big difference is that *Birds of Belize* provides much more information on each species than many field guides. There are fairly detailed descriptions of each species and descriptions of their voice, habitat, overall (world) distribution, then their status in Belize, with in many instances the reference or references for information cited at the end of the species account.

Belize is bordered to the north by Mexico, to the west and south by Guatemala, and on its east coast is the Caribbean. Just some 180 miles (approx. 290km) from north to south and 65 miles (approx. 105km) east to west at its widest point, it is only slightly larger than El Salvador, Central America's smallest country. Belize is the only English-speaking country in Central America, and one of the few English-speaking countries in Latin America. It is said to offer an ideal introduction to tropical birding, especially for English-speaking tourists and is beginning to rival Costa Rica as the most popular birding destination in Central America.

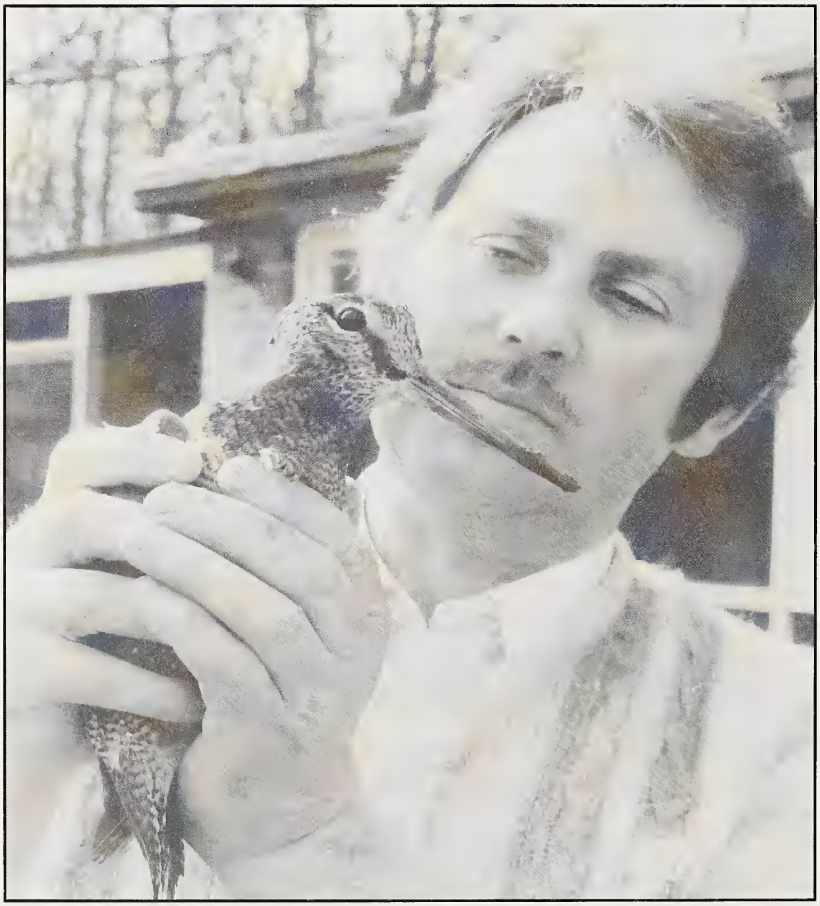
Helm Field Guides, *Birds of Belize*, is published in the UK by Christopher Helm, an imprint of A & C Black Publishers Ltd. Website:www.acblack.com Price £29.99.

Malcolm Ellis

MY WOODCOCK STUDY

by B. N. Lowde

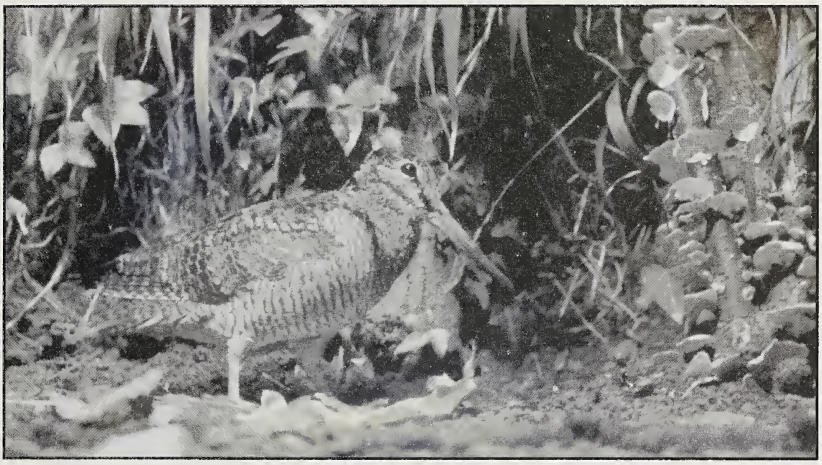
I have kept birds for over 30 years, and I have studied in the wild and bred in captivity many species of wild birds. My main study until 1972 was of the Hawfinch *Coccothraustes coccothraustes*, a species which I bred many times. In December 1971 I was awarded the British Bird Breeders' Bronze Medal, for being the first person on record to successfully breed the Hawfinch in captivity in Britain [1].



The author holding a Woodcock.

[1] *FIRST BREEDING RECORDS FOR BIRDS REARED TO INDEPENDENCE UNDER CONTROLLED CONDITIONS IN THE UNITED KINGDOM* compiled by Dave Coles, published in 1986, credits the first breeding to W. Teschemaker in 1911 - Ed

One early spring day in 1972, whilst out in the woods which adjoin the back gardens of 65% of our village perimeter houses, I was off the beaten track looking for Hawfinches' nests. From just in front of me, a Woodcock *Scolopax rusticola* flew up and I quickly found its nest, which had one egg. Nearby, just a few inches (centimetres) off the ground in a clump of brambles,



Copyright B.N. Lowde

Woodcock *Scolapax rusticola*

was the nest of a pair of Dunnocks or Hedge Accentors *Prunella modularis*, with five eggs. To one side, away from the Woodcock's nest was an old tree which had split and fallen, but was still resting on the remaining stump, thus forming a triangle with the ground. The whole of the tree including the stump was covered in trailing ivy and with a slight rearrangement of the ivy I had a natural hide, which if I approached from the rear, I would be able to watch the Woodcock, confident of not disturbing it.

Most days I would go to this natural hide and watch the Woodcock sitting on its eggs. On the day I hoped the eggs would hatch, I witnessed a remarkable happening. After having been at the hide for a while it became obvious that the Woodcock was agitated. It would leave its nest and approach the Dunnock's nest each time that the parents came with food for their young, which turned out to be approximately one week old. On each approach the Woodcock would turn around, fan its tail, then spread its wings, before returning to its own nest. Whilst the Woodcock was off its nest, I saw that one of its four eggs had hatched and another was just chipping. On what turned out to be its last visit, the Woodcock went straight to the Dunnock's nest, tapped its beak on the edge and as the young chicks raised their heads thinking they were about to be fed, the Woodcock took hold of each one in turn, grasping it by the head, shook it and then threw it to the ground. This

Copyright B.N. Lowde

An alternative use of the tail feathers. The Woodcock will open and close its tail, to show white 'flashes', to startle would-be predators.

done it returned to its own nest and settled down again. Whilst the above incident was happening I was sitting spellbound and after a minute or so realised that the Woodcock must have been acting to protect its own young from any would-be predators, which at the Woodcock chicks' most vulnerable time, may have been attracted by the noise of the Dunnock chicks whilst they were being fed. This behaviour was a revelation to me and I decided it was a bird that would be worth studying.

I realised that it would be almost impossible to study the Woodcock in the wild, as being a largely nocturnal bird, the only chance one would get to study it would be at dusk in early spring when it was roding (i.e. when the male was undertaking its display flights), or at the nest when the female was sitting on eggs. Having already witnessed the remarkable behaviour of the Woodcock with the Dunnock or Hedge Accentor chicks, I realised I could possibly watch a hundred nests and never see this remarkable behaviour again.

So my mind made up, my first step was to read everything I could find on the Woodcock. I soon found that very little was known of the life cycle of the Woodcock. This meant I would need to start my captive study from scratch with a male and a female bird. According to the writings at that time this would be a problem, as no known visible sex difference was apparent at any time. The only way known was by dissecting a dead bird. I was left with one solution - to obtain either a clutch of eggs or very young chicks, so

that I would be sure of getting one of each sex. Before attempting this, I had to get permission from the local park manager and various local farmers, allowing me to take a clutch from any part of the woodland around our village. Permission was readily granted by the park manager, who brought all sorts of injured birds to me, and by the farmers who brought injured non-pest species to me, to be looked after and released when fully recovered.

Due to the fact that here in Nottinghamshire we are situated on a belt of magnesium limestone, the top soil is very rich in worms and invertebrates. Also there are many natural springs, rising through the many fissures in the limestone, creating open lakes and muddy areas, making ideal feeding and breeding areas for the Woodcock.

My first acquisition, in 1973, was a chick about three weeks of age which had run out in front of me, and which I had caught after a brief chase through the sparse undergrowth. I was rather surprised, because it was only mid-March and the BTO (British Trust for Ornithology) information at that time stated that the Woodcock bred in April, with possibly a second brood around August. I calculated that the chick must have hatched from an egg laid over the Christmas-New Year period. I was unable to obtain any more chicks until April, and then only after intensive searching I found two two-week old chicks, and so my study could begin.

I had optimistically assumed that it would take approximately five years to complete. However, as the result of an unfortunate mishap and the fact that over the first few years, each Woodcock clutch I acquired seemed to yield only one female (how I learned to sex Woodcocks I explain later), plus the fact that by then I had become so fascinated by the intelligence of this species, my studies have now covered over 16 years and still new facts are becoming apparent.

In 1977 I was lucky enough to successfully hatch a Woodcock egg under a racing pigeon. The female Woodcock that laid the egg was blind in one eye, a defect which made her extra nervous. She had left an earlier clutch of eggs, which were found to have dead chicks inside, so I wanted to avoid risking this happening again.

I had by then realised that if I wanted a true insight into the life of the Woodcock, the only way was to bring up a chick in the house as one of the family. So, whenever I could afford cine film and 35mm colour film, I filmed a chick from when it was an hour old. I filmed its growth, its feeding and its ability to learn. I kept it in the house for over a year, housed at first in a 3ft x 1ft x 1ft (approx. 92cm x 30cm x 30cm) aquarium, with the bottom lined with fine soil. It was kept at room temperature, but for extra warmth and to assimilate the chick being warmed under its mother, I suspended a 40watt light bulb at one end just out of the chick's reach and the chick would lay and rest underneath the bulb. This proved quite adequate for it

and for further young in later years.

I set it numerous tasks to test its intelligence, such as putting down small brass dishes with lids on, and it had to pick the correct dish which contained a reward in the form of a worm. Also I made a small model scaffold, from which I suspended a small brass bell, and the Woodcock was taught that if it rang the bell it would receive a reward in the form of a worm; or later a strip of sheep's heart. This test then progressed to getting the Woodcock to run across to the bell and ring it. The Woodcock even learned that I would refuse to accept a soft ring and on my command would return and ring it louder so as to obtain its reward. Also I devised a matchbox test in which I might put down 10-20 closed matchboxes, each with a hole in the side, and just by touching the boxes with the tip of its bill, the Woodcock could detect

Phil Spencer

The Woodcock ringing the bell (a small Austrian cow bell suspended on a length of string), reproduced from a newspaper cutting featuring the author's trained bird.

and then extract the worm from the correct box in a matter of seconds. These tests I was able to film on Super 8 cine film and was lucky enough to have the film shown on television with the late Dr Magnus Pike and David Bellamy, also shown was my recording of its mating display.

When the young Woodcock was three months of age I transferred it to a hill mynah's cage, with a removable bottom for easy cleaning. As I sat watching television in the evenings, it would be resting contentedly, making low throaty sounds, very like the distant "cooing" of the Turtle Dove

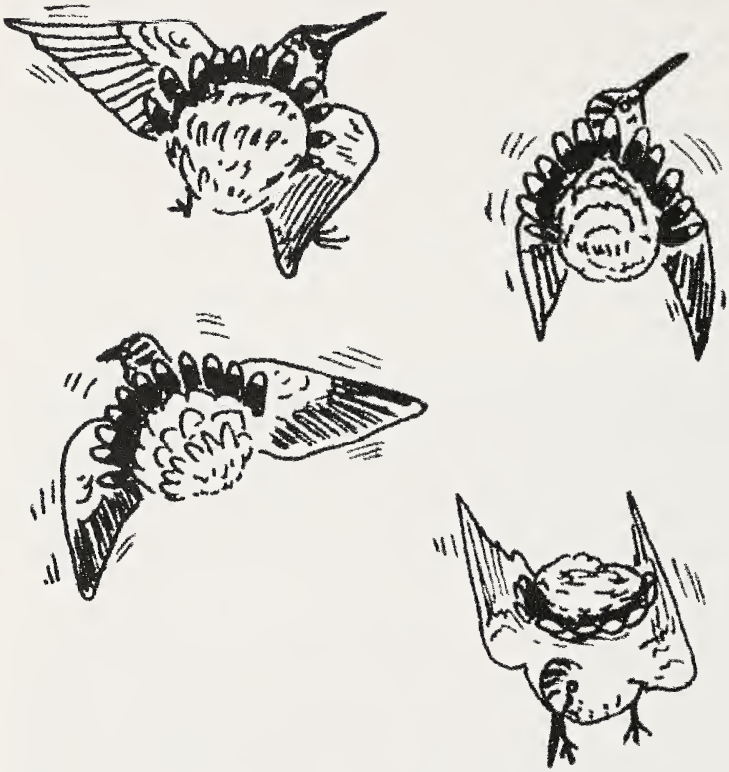
Streptopelia turtur and this was very pleasant to listen to. If after a while I took no notice of this it would gently ring its bell (a small Austrian cow bell, suspended on a length of string in its cage). If I continued to take no notice it would take hold of the bell and smash it across the metal bars of the cage, making a terrible noise so that I would go to it. If offered food, it would refuse it, appearing instead just to want my attention, or to be let out of its cage, as was normal most evenings after the family had gone to bed. It was therefore using the bell as a form of communication.

If when he was ringing the bell gently, I turned to him and said "good boy", he would immediately stand up in his cage and puff out his neck feathers, giving him the appearance of a Ruff *Philomachus pugnax*; his throat would inflate and he would make croaking sounds, like those of a frog, then he would turn his back on me and display; this included rotating his tail feathers.

When teaching a young Woodcock to do different tricks, it is not unlike teaching a dog. If it did anything which pleased me I would say "good boy" and give it a reward. I must have said this a thousand times during the first few weeks and the Woodcock learned that if I said this I was pleased and it meant it would receive a reward. If I said "good boy" as it was "cooing" it would stimulate it to perform its mating display.

As the young Woodcock had been kept in an aquarium on the floor near the fire during the first few weeks of its life, it had seen mainly our feet and shoes. If I was filming or feeding him small worms with a pair of tweezers as he stood on the carpet, he was always by my feet, so not surprisingly he became imprinted on my shoes, as he saw more of them than any other part of me, and came to regard them as his parents. At about three months of age when he was transferred to the mynah's cage, this was on a coffee table, which meant he saw my face whilst I was feeding him or teaching him tricks. He then, as I realised when he was a little older, became imprinted on my face as well as my shoes.

One evening when I let him out after the family had gone to bed, he flew around the room several times, as though roding in the wild - his prelude to the mating display - and would usually land on the floor and then display. He would raise his tail feathers and his under tail-coverts, and as he displayed would alternatively rotate each row of feathers. As they were rotating, the white iridescent spots on the underside tips of the tail feathers became a white almost circular blur, like a catherine-wheel. As each row of feathers passed and rubbed against each other it sounded like someone running their thumb over the edge of a pack of playing cards; at the same time it held out its wings and shook them vigorously. This it did intermittently, between jumping up in the air, sometimes as high as 3ft (approx. 92cm), then landing again and continuing this display and jumping pattern for five to six minutes.



Representations from the mating displays performed within the author's front room.

On this occasion he flew around the room and instead of landing on the carpet and doing his display, he flew towards me and hovered in front of my face, with the tip of his bill almost touching my nose. He hovered there for almost a minute. He was rotating his wings in a figure of eight movement, as does a hummingbird. His wings were almost invisible, such was the rapid movement needed to keep him suspended in front of my face. Unlike the Kestrel *Falco tinnunculus* and some other birds that need wind to enable them to hover and remain in the same place, the Woodcock needed no such assistance. The room door, the windows and the curtains were all closed.

On another occasion whilst filming the Woodcock, I kicked off one of my shoes onto the carpet and the bird immediately began to display to it, which culminated with it jumping up onto the toe, taking hold of the lace and mating with the shoe. At times when I put my hand into the cage, he

would jump onto the back of my hand, take hold of my sleeve and attempt to mate. It was very obvious that this was a male Woodcock that was heavily imprinted. I learned from it that whenever I got a clutch of young Woodcocks, either from eggs or from the wild, I needed to keep them together for the first few weeks and so 'cross print' them. Then I could take one which I wanted to teach and whose intelligence I wanted to test and if I wanted to could soon put it back with the others without any difficulty.

Furthermore, I learned that young chicks can be sexed quite easily despite their identical colouring. Some of the chicks would make the same sounds as an adult male, though somewhat squeakier, while others would hardly utter a sound. When they were being paired up for mating, the difference in temperament between the male and female was even more distinct with the adult birds, the male being boisterous and uttering gutteral croaking sounds and the female being very quiet at all times.

Captive breeding sequence

Year 1 - February

Two adults in cage 8ft x 6ft (approx. 2.4m x 1.8m) produced young in March. After breeding both birds dropped their tail feathers and went into a moult.

Year 2 - February-March

Two adults and two one-year of age Woodcocks in cage. The one-year old pair had dropped its tail feathers and so could not display and thus stimulate breeding. The adult pair then went on to breed, after which the pair dropped its tail feathers and went into its moult.

Year 2 - July

The two younger birds then 16 months of age had by then regrown their tail feathers and were able to go ahead and breed. Whilst the older adult birds were regrowing their tail feathers ready for the following spring.

Is the Woodcock single or double-brooded?

The question has often been raised as to whether the Woodcock is single or double-brooded? The main belief (by the Game Conservancy) is that it is double-brooded, as young are seen in spring and again in July-August. Based on my observations of the Woodcock in captivity, I have concluded that it is single brooded - and that two different age groups breed in the same year - one in February-March and the other in July-?, so that each year two lots of young appear and it is this that gives the impression that the Woodcock is double-brooded.

Whilst concentrating on probing for a worm, the Woodcock was not distracted by being stoked.

Brought up in the house with the dog as well as with human beings, the Woodcock accepted the dog as well as it accepted human beings.

B.N. Lowde's account of his Woodcock study will be concluded in the next issue. B.N. Lowde retains the copyright of all material reproduced above.

NEWS & VIEWS

MAY BE EXTINCT IN THE WILD

The Bali Starling *Leucopsar rothschildi* may be extinct in the wild - the last remaining 12 not having been seen for some months according to a report in *International Zoo News* Vol.51, No.3, pp.180-181 (2004), which cites as its source Chris Hibbard in the ARAZPA (Australasian Regional Association of Zoological Parks and Aquariums) *Newsletter* No.61 (February 2004). Chris Hibbard is on a year's leave from Taronga Zoo to take up the position of Curator, Avian Department, Bali Bird Park, Gianyar, a privately-run organisation in the south of Bali. The park has 17 Bali Starlings and is currently trying to compile a studbook for this species in order to improve standards of captive management. Until the pressures of poaching are addressed, the release of birds into Bali Barat National Park will continue to be problematic.

At the time the newsletter was published, the Bali Bird Park collection, which also includes South-east Asian hornbills and birds of paradise, had young being reared by Moluccan *Cacatua moluccensis*, Eleonora's *C. galerita eleonora* and Triton Cockatoos *C. g. triton*, Scarlet Ibis *Eudocimus ruber*, Von der Decken's Hornbills *Tockus deckeni*, Eclectus Parrots *Eclectus roratus* and Green Junglefowl *Gallus varius*. It had also had its first successes with Roseate Spoonbills *Platalea ajaja*, Buffon's Macaws *Ara ambigua* and White-crested Laughingthrushes *Garrulax leucolophus*. Two pairs of Southern Pied Hornbills *Anthracoceros albirostris* were currently rearing well advanced young.

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FURTHER SPIX'S MACAWS ACQUIRED

Tony Pittman's website - www.bluemacaws.org - reports that Sheikh Saoud Bin Mohammed Bin Ali Al Thani has acquired a further 24 Spix's Macaws *Cyanopsitta spixii* from Antonio de Dios in the Philippines. It brings to 31 the number of Spix's Macaws at Al Wabra Wildlife Preservation in Qatar. They will be joined by a further 13 from Roland Messer in Switzerland (see News & Views Vol. 108, No.1, pp.44-45 (2002).

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SUNBITTERN BRED AGAIN

March 13th, a Sunbittern *Eurypyga helias* hatched at London Zoo and fledged two weeks later, 127 years after the last Sunbittern was hatched there in 1877, and almost 140 years after London Zoo was the first zoo in the world to breed the Sunbittern back in 1865.

LONG-LIVED STARLINGS

Following publication in *Gefiederte Welt* 127:201 (2003) of the first version of his compilation of longevity records of starlings, Dr Herbert Schifter wrote seeking help in obtaining further information about a long-lived Golden-breasted or Royal Starling *Lamprotornis* (*Cosmopsarus*) *regius*, mentioned by C. S. Webb in Notes from London Zoo (*Avicultural Magazine* 56,3:142-143 (1950)), who stated that it was still going strong having come with an importation of birds from Abyssinia (Ethiopia) in 1923.

John A. Ellis has now checked the zoo records and the above bird would seem to have been the one presented by Mrs Sevastopula May 22nd 1948 that died April 20th 1952, which was reputed to have been some 25 years of age when it was given to the zoo, though as John pointed out, this cannot be validated.

John also provided information on two other long-lived Golden-breasted Starlings: (l) presented by Alfred Ezra April 21st 1925 that died October 10th 1942; (2) presented by the Hon. Anthony Chaplin February 2nd 1931 that died June 4th 1950.

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PROBABLE WORLD FIRST CAPTIVE BREEDING

On October 16th 2003, the first of three Javan Pond Herons *Ardeola speciosa* was hatched at Miami Metrozoo, Florida, USA. In December, Jeff Sailer, Curator of Birds there, contacted the society to ask if there was any way we could verify that this was a world first captive breeding? We could only state with certainty that this species has never been bred in the UK, and that we knew of no other previous breeding elsewhere. This remains the case.

Earlier in 2003, the first of 20 Philippine Banded Rails *Gallirallus philippensis* was hatched there. It was the first US captive breeding of this seldom exhibited species.

* * *

CHICK HATCHED

The new male Spix's Macaw *Cyanopsitta spixii* from São Paulo Zoo, which arrived at Loro Parque, Tenerife, towards the end of last year (see News & Views Vol. 110, No.1, p.43 (2004)), was placed with the Loro Parque-bred female on January 8th. Two eggs were laid in May and were placed with a pair of Chestnut-fronted Macaws *Ara severa*. One was infertile but the other hatched on June 9th and on the fourth day, when the chick weighed 15.4g, it was removed and hand-reared.

EXTINCT IN THE WILD

The Socorro Dove *Zenaida macroura graysoni* or *Z. graysoni* exists now only in captivity. The exact number being held is unclear, but one estimate put the number at about 100 birds here in Europe. Chester Zoo listed a male and four females at the end of 2003, and London Zoo listed a male and a female. With the help of several sponsors, Marlow Bird Park, Germany, in 2002 established a breeding centre with 10 aviaries. Last year 16 of these doves were reared there, the number being limited only by the lack of more aviary space. If more collections could be persuaded to keep the Socorro Dove, the number being bred each year could be increased.

The eventual aim is to reintroduce this dove back onto the island of Socorro 600km (approx. 375 miles) off the west coast of Mexico.

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FURTHER NEWS FROM LORO PARQUE

The rarely kept New Caledonian subspecies of the Rainbow Lorikeet *Trichoglossus haematodus deplanchii* has been bred at Loro Parque. Two out of the four pairs of Hawk-headed Parrots *Deroptyus accipitrinus* raised young after being re-housed in new 5m (approx. 16ft) long aviaries, showing that by changing a species' accommodation, it is sometimes possible to trigger successful breeding by birds which had previously shown no desire to nest. Soon after a black screen was placed between their aviaries, so that the two pairs of Collared Lories *Phigys solitarius* could hear each other, but no longer see each other, both pairs produced young. One pair successfully raised its two chicks, but the other pair killed its first chick, so the second was removed and reared by a pair of Goldie's Lorikeets *L. goldiei*.

A further Blue-eared Lory *Eos semilarvata* has been hatched, bringing the Loro Parque population of this rarely kept lory to six. Following a slight change to the food formulation for the *Brotogeris* parakeets, there was increased breeding activity, with both the White-winged *B. versicolurus versicolurus* and Canary-winged Parakeets *B. v. chiriri* breeding for the first time at Loro Parque.

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EARLY STARTERS

As reported in the previous issue (News & Views Vol.110, No.11 p.47 (2004)), shortly after arriving at Burgers' Zoo, Arnhem, the Netherlands, Guira Cuckoos *Guira guira* had already raised five young. Within weeks of acquiring four Guira Cuckoos, a nest with four young chicks in it was found at World of Birds Wildlife Sanctuary, Cape Town, South Africa. After two disappeared, the remaining two were removed and hand-reared.

Apparently, these birds usually live in groups of eight, but the number can rise to as many as 20. Burgers' Zoo is looking for other collections with which to exchange birds.

SURELY A LONGEVITY RECORD?

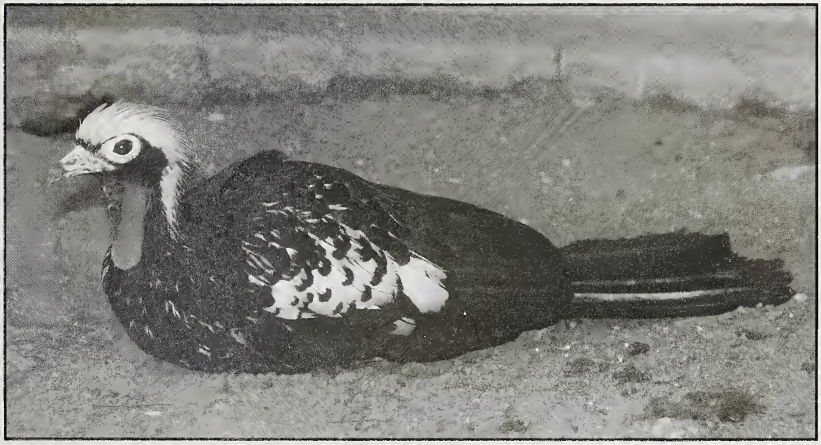
We have been unable to get official confirmation from Frankfurt Zoo, but believe that the *Picathartes oreas* (Frankfurt Zoo No.30925) 0.1.0 hatched there March 28th 1984, was still living there on March 28th 2004, meaning of course that it is now 20 years of age. Surely a longevity record? It must also be the bird in the photograph below taken by Christopher Brack in July 1994 at Frankfurt Zoo. It would be interesting to know more about the history of this bird.

Christopher Brack

***Picathartes oreas* at Frankfurt Zoo in 1994.**

BLACK-FRONTED PIPING GUAN

Geer Scheres, President, Crax International, Belgium, provided Christopher Brack with the following information about the Black-fronted Piping Guan *Pipile jacutinga*: We first brought two pairs to the CBCC (Cracid Breeding and Conservation Center) about three years ago from the population in our breeding center Crax Belo Horizonte, Brazil, followed about a year and a half later by another two pairs from different bloodlines. Last year we raised several chicks. I saw a pair in Estudillo's collection in Mexico the last time I was there in 1989, and two birds that had been brought as chicks years ago to Chechia from Uruguay by Mrs Franek. Of these birds, one, a male lived in Prague Zoo. I do not know if it is still alive. The other bird died. There are several private breeders who keep this species in their collections in Brazil. Geer Scheres concluded by mentioning that at the CBCC in 2003 they bred another White-winged Guan *Penelope albipennis* (see News & Views Vol.109, No.4, pp.184-186 (2003)).



Christopher Brack

Black-fronted Piping Guan at Rio de Janiero Zoo in 1992.

Geer Scheres has recently provided the following additional information: This year we have raised five Black-fronted Piping Guans and have a few eggs still in the incubators, and have also raised some White-winged Guans.

Stichtung Crax is a Dutch foundation, founded in 1989, that also works for the conservation of cracids. It also uses the name Crax International outside of the Netherlands. The CBCC in Belgium is also a non-profit making organisation, where guans, other cracids and cranes are kept and where we work with endangered species. We train people from the countries of origin of the birds in all the things we do here, which includes developing artificial reproduction techniques. We also finance conservation and reintroduction programmes, for example, at breeding centers in Brazil, Peru and Russia,

and finance field research in countries such as China.

We also work with Crax Peru and Crax Brasil. All of us are independent of each other, but since 1989 we have been working together for the conservation of these beautiful birds. All of the people working for these organisations are volunteers, nobody gets a salary.

Since March, Geer Scheres has also been Deputy-Director of the Endangered Wildlife Breeding and Conservation Center, an institution under the private management of the Crown Prince of Abu Dhabi, UAE.

* * *

EARLIER SUCCESS

As seemed likely, considering that it used to be a commonly kept softbill, the White-eared Bulbul *Pycnonotus leucogenys leucotis* or *P. leucotis* had been bred in the UK before Gary Bralsford's recent success (*Avicultural Magazine* Vol.110, No.1, pp.17-19 (2004)). Using his recently completed index to the *Avicultural Magazine* covering the period 1894-2003, which can now be accessed on the society's website - www.avisoc.co.uk - Dave Coles found a reference to correspondence on breeding what F.W. Dugdale called the White-eared Persian Bulbul (*The Avicultural Magazine*, Fifth Series, Vol. 1, No.8, p.224 (August 1936)).

The previous year, F.W. Dugdale had kept a pair in a garden aviary, that succeeded in rearing three young. It was the pair's second attempt, the first proving unsuccessful because of other insectivorous species living in the same aviary. Once these were removed, the pair went to nest again and hatched three out of four eggs. At the time of writing, the pair had hatched three eggs in its first nest of 1936, but two of the youngsters had died during a severe storm; the third was fine and was flying about in the aviary with its parents. F.W. Dugdale had been told that his 1935 success was only the fourth occasion on which this bulbul had been bred in Europe.

* * *

SPANISH BREEDINGS

Miguel Avedillo, Zamora, Spain, has bred *Atlapetes guteralis*, a brush finch, in a 100sq m (approx. 1,000sq ft) aviary with an abundance of vegetation. In the first nest, three eggs were laid, from which two chicks were reared to independence. A further clutch of three eggs was due to hatch shortly. There were eggs in 2003, but no young were reared.

In the same aviary, Rufous-collared Sparrows *Zonotrichia capensis* bred last year and have bred again this year. The aviary also houses a dozen different species of American Emberizidae and cardinals, along with a dozen Eurasian finches and buntings.

Robin Restall kindly translated Miguel Avedillo's original e-mail from Spanish into English.

AVICULTURAL MAGAZINE INDEX 1894-2003

At long last Dave Coles' index to the *Avicultural Magazine*, covering the period November 1894, when the first issue was published, through to Vol.109, No.4, 2003, can be accessed in a searchable form on the society's website: www.avisoc.co.uk It is in two parts: the first and largest part (241 pages) lists references to the species; the second part (84 pages) lists subjects, e.g. aviary fittings, early aviculture, etc. Each entry gives the year and page number or numbers and, when appropriate, notes of illustrations.

* * *

MYNA ALERT

A pair of Common Mynas *Acridotheres tristis* (with a nest with five eggs) has been shot in northern Tasmania, in an operation involving police and Department of Primary Industries, Water and Environment (DPIWE) staff. The Common Myna is slowly extending its range on mainland Australia, where it is regarded as a pest, and every effort is being made to prevent it from colonising Tasmania.

In Brisbane a trained Wedge-tailed Eagle *Aquila audax* is being used to scare away Australian White or Sacred Ibis *Threskiornis aethiopica* from the Botanic Gardens, where they breed and roost, and from two of the squares in Brisbane, where they scavenge for food scraps. Ibis have been living in Brisbane for at least 10 years and the population had increased to about 100 strong, a number which was unacceptable to Brisbane City Council, that accused the ibis of harassing outdoor diners and of being a health risk. The majority have been scared away by the eagle, leaving just 20 or so, a number that is considered tolerable. People are being encouraged not to feed the birds and to take greater care when disposing of their garbage. In New South Wales, Department of the Environment and Conservation staff think that by watching for the presence of ibis, they may be able to identify illegal waste tips.

The shooting of the Common Mynas in Tasmania and the ibis-scaring eagle were reported in *Wingspan* Vol.14, No.1, pp. 5-6, March 2004, published by Birds Australia (Royal Australasian Ornithologists Union). *Emu* Vol.104, No.1, pp. 45-57, 2004, also published by Birds Australia, has a paper on the breeding biology of the Grey-headed Parrot *Poicephalus fuscicollis suahelicus* in south-east Zimbabwe and Northern Province, South Africa by Craig T. Symes and Michael R. Perrin of the Research Centre for African Parrot Conservation.

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