

AVICULTURAL MAGAZINE



VOLUME 113
No. 1
2007

THE AVICULTURAL SOCIETY

The Avicultural Society was founded in 1894 for the study of British and foreign birds in the wild and in captivity. The Society is international in character, having members throughout the world.

Membership subscription rates per annum for 2007 as for 2006: British Isles £18.00; Overseas £21.00 (plus £6.00 for airmail). (U.K. funds please). The subscription is due on **1st January of each year** and those joining the Society later in the year will receive back numbers of the current volume of the AVICULTURAL MAGAZINE.

THE HON. SECRETARY AND TREASURER, THE AVICULTURAL SOCIETY, ARCADIA, THE MOUNTS, TOTNES, DEVON TQ9 7QJ, UK.

Subscriptions and other payments can be made direct to The Avicultural Society Account, Lloyds TSB Bank PLC, 83 High Street, Sevenoaks, Kent TN13 1LG, UK. Please quote Account No. 00003950; Sort Code: 30 97 49; and ensure you send your name as the account reference, or else we cannot match payments. In case of difficulty please contact the Hon. Secretary and Treasurer at the address above, or e-mail: Paul@pboulden.fsnet.co.uk

Website: <http://www.avisoc.co.uk>

THE AVICULTURAL MAGAZINE welcomes original articles that have not been published elsewhere and that essentially concern the aviculture of a particular bird or group of birds, or that describe their natural history. Articles should be preferably typewritten, with double spacing, and the scientific names as well as the vernacular names of birds should be given. References cited in the text should be listed at the end of the article. Line drawings, black and white or colour photographs which illustrate a particular point in the article will be used where possible and should be clearly captioned. If authors wish their eventual return, they must say so when submitting the article and write their name on the back of each photograph. Tables and graphs will also be used wherever possible but authors should be aware of the constraints of reproduction, particularly regarding the width of the page which is 105mm.

ADDRESS OF THE EDITOR

Malcolm Ellis, Hon. Editor, The Avicultural Magazine, The Chalet, Hay Farm, St. Breock, Wadebridge, Cornwall PL27 7LL, England.
E-mail: editor@avisoc.co.uk

AVICULTURAL MAGAZINE

THE JOURNAL OF THE AVICULTURAL SOCIETY

Vol. 113 - No. 1 All rights reserved ISSN 0005 2256

2007

The Avicultural Society

FOR THE STUDY OF BRITISH AND FOREIGN BIRDS
IN THE WILD AND CAPTIVITY

OFFICERS AND COUNCIL
As from September 16th 2006

President

Mrs R.M. Sawyer

Vice Presidents

F. Barnicoat (South Africa)

J. M. Dolan Jr, PhD (USA)

C. J. S. Marler (UK)

The Rev. R. Noegel (USA)

Dr H. Quinque (France)

R. L. Restall (Venezuela)

R. C. J. Sawyer (UK)

Dr R. Wilkinson (UK)

Honorary Editor

M. Ellis

Honorary Secretary - Treasurer

P. Boulden

Members of Council

R. S. Abrey

P. Convy

M. Curzon MBE

J. A. Ellis

Mrs L. Gardner

R. B. Girling

N. R. Hewston

G. Masson

S. Pyper

V. P. Sargent

P. G. Schofield

J. G. Thurlow

B. Tremlett

J. Trollope

Ms R. Wiseman

Chairman C.J.S. Marler

BREEDING THE BLACK-THROATED BARBET

Tricholaema melanocephala

by Martin Davies

I acquired a pair of Black-throated Barbets from Phil Cleeton in early summer 2006, with the intention of trying to breed this small East African barbet.

The Black-throated Barbet is found in Sudan, Ethiopia, Somalia and Kenya through to central Tanzania. It inhabits dry bush and woodland below 1,500m (approx. 4,925ft). In areas of slightly higher rainfall in Kenya and Tanzania, it tends to be replaced by the very similar Spot-flanked Barbet *T. lachrymosa*. Where their ranges overlap, the latter is mainly confined to taller riverine vegetation. The Black-throated Barbet's call is very different to that of the Spot-flanked Barbet, the former being more complex in make-up and louder.

Like other African arboreal barbets the Black-throated species eats mainly fruit, being particularly fond of figs. Insects also feature in its diet and are taken from the surface of leaves and bark, it will also catch them on the wing and will even hover to take insects. Caterpillars and shoots and buds of acacia were among the food listed by Mackworth-Præd & Grant (1957).

At the time I purchased my pair of Black-throated Barbets, I was in close contact with Mike Curzon, who at the time had a pair of Spot-flanked Barbets with successfully fledged young. Taking his advice and experience on board, I set about making the flight for my Black-throated Barbets as natural as possible. One of the keys to my breeding success was to provide them with a well-rotted willow trunk (courtesy of Mike), so that the barbets could make their own nest cavity. Within 24 hours of placing the log in the flight both birds were busy excavating a hole in it. Interestingly, in a bid to draw as little attention as possible to their nesting activity, the birds removed the wood chips to the other side of the flight. Within four days the cavity was complete and the pair began to roost in it each night.

Both birds were in great condition and got on together extreme well, with no sign of aggression from either of them. The fact that they were both in breeding condition at the same time was, I think, another key factor that made my chance of breeding them so much stronger. In the past I have had terrible trouble with tinkerbirds (*Pogoniulus*) not being in condition at the same time and having to be separated from one another to stop fights occurring. So, with both birds in good condition and the nest cavity made I had high hopes.

Food

At first the barbets fed almost exclusively on fruit and I discovered they relished elderberries and pyracantha berries. Waxworms were also taken but not in any quantity until the eggs hatched. Everything else supplied was ignored.

Breeding

My notes on the breeding of this barbet are quite scant, as I was distracted by my Black-capped Social Weavers *Pseudonigrita cabanisi*, which were also breeding at the same time (see *Avicultural Magazine* Vol.112, No.3, pp.119-122 (2006)). The barbets laid two eggs, one of which hatched and the other was thrown out of the nest. The barbets were very vocal at this time making a low-pitched “pee” whistle sound in short bursts and were very bold and steady. The youngster was fed continually on the food provided and flying insects caught on the wing by the parents. Mike had remarked on how he had observed his Spot-flanked Barbets hawking flies and my Black-throated Barbets did the same. After a surprisingly long time, 40 days, the young barbet fledged successfully. The key differences between the parents and the fledgling were the greater brightness of the yellow markings on the fledgling’s wings and the fact that it still lacked a serrated cutting edge to its bill.

At the time of writing (early January 2007) all three Black-throated Barbets now reside with Mike Curzon, who has three species of small barbets in his collection. If any member knows of other pairs of Black-throated Barbets or odd birds, Mike and I would like to hear about them. We are convinced that given the similarity between the Black-throated and Spot-flanked Barbets, there may well be some other Black-throated Barbets that were imported with other small barbets back in 2005, and perhaps their owners have mistaken them for the Spot-flanked.

Reference

Mackworth-Praed, C.W. and Grant, C.H.B. 1957. *Birds of Eastern and North Eastern Africa*. Vol. I. Second Edition. Longman, Green & Co., London, New York, Toronto.

Martin Davies and Mike Curzon MBE are UK members who live in Wiltshire. Mike Curzon can be contacted by Tel:01934 or E-mail: mcurzonmbe@hotmail.co.uk

CIRL BUNTING *Emberiza cirius* REINTRODUCTION PROJECT

by Jo Gregson

Overview

The Ciril Bunting is a sedentary species that rarely strays more than a mile (1.6km) or so from its winter and summer territories. Changes in farming practises have caused small flocks of this species to become isolated along the south Devon coastline. There is other suitable habitat along the UK coastline but no corridors for the Ciril Bunting to move along. While the Ciril Bunting has maintained and in many cases increased in number there has been little expansion in its range.

During 2001 Paignton Zoo, the RSPB (Royal Society for the Protection of Birds), The National Trust and English Nature combined forces to set up the Ciril Bunting Reintroduction Project, with the aim of re-establishing the Ciril Bunting in other parts of southern England. The first phase of the project was to ascertain whether or not the Ciril Bunting could be hand-reared from a young age without becoming imprinted and, of course, to undertake research on the behaviour of the chicks in captivity. During 2001, 2003 and 2004 chicks were collected from the wild population (during 2002 the project was put on hold due to the outbreak in the UK of foot and mouth disease). Over those three years the partners finely tuned their nest finding and hand-rearing skills. They found that once independent the hand-reared Ciril Buntings behave like wild birds and are very alert and quick to react to any perceived threat.

Five donor sites were selected for the project. RSPB field workers closely monitored the wild population to ensure that the birds were not under any local pressures. Just one brood was taken from any one pair. Ciril Buntings lay up to three clutches and the first brood of the year is invariably lost due to heavy rainfall and lack of insect life, so this was the brood targeted. In total 22 broods were harvested from a possible 67 pairs and it is unlikely that the relocation had any effect on the south Devon population.

At the end of 2004 12 young Ciril Buntings were released in an area of south Devon from where they had previously been taken. Prior to release the birds were kept in an aviary and then soft-released, being fed at the site each day until they eventually dispersed. They were closely monitored over the winter and on into 2005. The birds mixed well with flocks of wild, wintering, Ciril Buntings. During 2005 four of the released birds paired with wild Ciril Buntings and three of those pairs produced young.

In 2006 the project really took off - 72 Ciril Buntings were reared and later released in an area of Cornwall. Two aviculturists were employed to

undertake the hand-rearing and to release the birds. Several RSPB field workers will continue to monitor the birds in the wild well into 2007. The project will continue for the next three years, with at least 60 birds being released annually. We hope the result will be that the Cirl Bunting once again becomes self-sustaining along the Cornish coast and adjacent farmland.

Hand-rearing

We found that the ideal age to start hand-rearing the Cirl Bunting is at six to seven days. When taken at eight days or older the chicks are less confiding and more difficult to feed. Any younger than six days old the chicks are very small and difficult to manage in a practical sense, though chicks both older and younger have been reared successfully. The nestlings are kept in their birth broods and placed in a brooder set at 28°C (82.4°F). They are nestled in a round dish and bowled together using soft tissue paper which prevents their legs from splaying. The chicks are not fed for the first hour in order to allow them time to settle, after which they are fed every 1½-2 hours from 6.00am until midnight.

The chicks are weighed every day and kept to a weight gain of approximately 10%. Some older chicks have proved stubborn at feeding times and to overcome this we use a soft bristle paint brush to tease open their bills and place food in their mouths. Another trick we have used with stubborn feeders is to feed another brood at the same time. When this is done, the calls of the other brood of Cirl Buntings feeding is too much for the chick to bear and it automatically opens its bill albeit somewhat reluctantly.

The diet consists of 60% Mazuri Diet A pellets soaked until soft and then mixed with 35% grated boiled egg. The remaining 5% is banana which is added to the mix so that it can easily be formed into balls for feeding. A light sprinkling of SA37 vitamin/mineral supplement is added. Mealworms are offered throughout the day.

Baycox (Bayer) 2.5% Toltrazuril solution is added to the diet as a prophylactic. The oral dose for passerines is 12.5mg/kg body weight, once daily for two consecutive days each week. Throughout the rearing period all chicks undergo regular visual and faecal checks. From our experience during the 2004 release, when they showed many stress responses, we learned that Cirl Buntings do not cope well with being handled after they have fledged. Therefore, unless signs of disease are obvious, all checks are carried out without handling the birds.

Equipment

Brinsea TLC 4 brooders were used for the rearing period. Fledging birds were weaned in standard sized wooden double breeding cages. Once

weaned the birds were placed in aviaries. These release aviaries are designed with a release door at the front and another in the roof. During the first trial it was noticed that some birds preferred to enter and leave the aviary via the roof. To prevent birds of prey entering the aviaries 2in (5cm) mesh is placed over both release doors. Fixed at the back of each aviary under a shelter is a wooden breeding cage. The weaned chicks are kept in this small cage for a couple of days before being let into the aviary. This gives them a chance to take in their new surroundings before being given flight space. Hopefully it has also reduced incidences of trauma. Each aviary is heavily perched and positioned facing a thick hedgerow beyond which is an open stubble field.

Fledging

The chicks are kept in brooders for only a short while. At 12 days they start to show signs of fledging. At this time their appetite will drop and they will not gain as much weight. They become more observant and will sit on the edge of the nest bowl and even jump out if disturbed unexpectedly. Between days 12-14 they are moved into standard sized wooden breeding cages. As would be expected, on the first day of being moved the chicks become quiet and subdued. They are moved early in the morning and are watched closely throughout the day. If by the end of the day a bird is not relaxed, it is placed back in the brooder for another night. A lot of changes are made at this time. The cages are furnished with leafy branches to allow the birds to perch and hide. Wild seeds and millet are added to the diet and a dish of water is provided. Fledging is a very stressful time for all birds and great care is taken to ensure that they are kept in a comfortable routine. With stress can come disease, so this is a time when all birds can be at risk. They must be kept pristine clean, but it is also a time when they make the most mess, as they learn to feed themselves and jump in the food dishes. Mixed seeds are gradually added to make up half of the diet.

Weaning

From about 16 days the chicks begin to pick up food. At first they will pick it up only from the hand, but after a few days of repeatedly having had the food dropped in front of them, they are eventually persuaded to pick up the food from the floor or a dish. Livefood is not picked up until a few days later, though dead livefood is taken. As they grow more independent they become hand shy and weighing is stopped. The birds remain in cages until all of them are feeding, bathing and preening efficiently. By day 25 they are moved to the release aviaries.

Release

Once the birds have been released from the breeding cages into the aviaries they become noticeable to predatory animals in the area. Several methods were used to deter birds of prey and domestic cats. An electric fence was placed around all 10 aviaries. More usually used to keep domestic stock in, it worked very well at keeping cats out. A sonic sound device was also used, but its effectiveness could not be measured, as the electric fence was already in place. Several large balloons adorned with two large target eyes were tied to trees and shrubs around the aviaries to put off any Sparrowhawks *Accipiter nisus*.

Wild Cirl Buntings spend a lot of time foraging on the ground, so some of the seed and mealworms are placed on the floor of the aviary. Most of the food however is placed on the inside ledge of the escape hatch. During this time the rearing mix is slowly withdrawn and replaced with a mixture of millets and wild seeds. The birds spend about 12 days confined to the aviaries after which, provided they are fit and healthy, the release hatches are opened. All food is then placed on the outside ledge of the escape hatch and after one week the birds are shut out of the aviary, but continue to be fed on the ledge. As late as October some birds were still returning for food and for this reason one aviary was left standing and used as a feeding station. Seed is also scattered in the adjacent stubble field.

The project has been a great success thus far and all partners are eagerly waiting to see if the released birds pair up successfully this spring.

Products mentioned in the text

Mazuri Diet A: zoo food pellet supplied by Mazuri Zoo Foods, Witham, Essex CM8 3AD, UK. Website: www.mazuri.com

SA37: vitamin/mineral supplement supplied by Intervet UK Limited, Walton Manor, Milton Keynes MK7 7AJ, UK. Website: www.intervet.com

Brinsea Brooders: supplied by Brinsea, Station Road, Sandford, N. Somerset BS25 5RA, UK. Website: www.brinsea.com.

Mixed wild seeds: supplied by Rob Harvey Specialist Feeds, Kookaburra House, Gravel Hill Road, Holt Pound, Farnham, Surrey GU10 4LG, UK. Website: www.robharvey.com.

Mixed millet seed: supplied by John E. Haith, Park Street, Cleethorpes, Lincs., UK. Website: www.haiths.com

Aviaries: supplied by Grange Aviaries and Pet Centre, Woodhouse Lane, Botley, Southampton S030 2EZ, UK. Tel: 01489 781260.

Acknowledgements

Thanks to my fellow staff members involved in this project: Curator of Birds Colin Bath and aviculturists Carl Laven and Julie Wallace.

Jo Gregson, Senior Head Keeper of Birds, Paignton Zoo Environmental Park, Totnes Road, Paignton, Devon TQ4 7EU, UK. Website: www.paigntonzoo.org.uk/E-mail: jgregson@paigntonzoo.org.uk

THE BIRD COLLECTION AT WADDESODN MANOR

by Andrew Owen

Over the last few years the Aviary at Waddesdon Manor has undergone many changes. As well as the complete refurbishment and painting of the exterior of this unique ornate structure, all of the interiors of the aviaries have been landscaped and replanted with tropical plants such as bamboos, palms and tree ferns. Not only does this enhance the appearance of the aviaries, it creates mini-environments and provides good nesting sites for the birds. Several species have been replaced in the collection by new and often more challenging birds. Whenever possible we are working with rare and endangered birds, focusing on those from south-east Asia and Africa.

Turacos have always been well represented at Waddesdon and new species include the White-crested *Tauraco leucolophus*, Schalow's *T. schalowi* and Fischer's *T. fischeri*. The beautiful White-crested Turaco is rare in aviculture. Our two are a young unrelated pair that nested for the first time in 2006. Unfortunately they showed their inexperience and failed to rear their young themselves. The first two chicks were hand-reared by keeper Ian Edmans and two further chicks were foster-reared under the Fischer's Turacos.

Members will recall that we also keep the White-bellied Go-away Bird *Corythaixoides leucogaster* and in 2005 were successful in breeding this species, almost certainly for the first time in the UK (see *Avicultural Magazine* Vol.112, No.2, pp.62-70 (2006)). This grey and white species is delightful to keep. Unlike other turacos that eat mostly fruit, the go-away birds eat large amounts of greenfood and we feel that the abundance of cos (romaine) lettuce, along with Hazel *Corylus avellana*, Hawthorn *Crataegus nigra*, Lime *Tilia sylvatica* and honeysuckle *Lonicera* spp. leaves, were the key to the rearing of the chicks.

Bearded Barbet *Lybius dubius*, Spot-flanked Barbet *Tricholaema lachrymosa*, Spotted Morning Warbler *Cichladusa guttata* (also known as the Spotted Morning-Thrush and Spotted Palm-Thrush) and Snowy-crowned Robin Chat *Cossypha niveicapilla* are among other African additions to the collection. The first three species mentioned all reared young during 2006. Large rotten logs from the estate grounds were provided for the barbets to excavate their nest holes and the Spotted Morning Warblers were provided with a dish of wet clay soil to make their cup-shaped nest. Both Spotted Morning Warblers took turns to incubate the two bright turquoise eggs and the young were reared on a variety of insects.

Breeding success has also been achieved with a number of south-east Asian species. Nine Pekin Robins or Red-billed Leiothrix *Leiothrix lutea* were bred in 2005 and its close relative the Silver-eared Mesia *L. argentauris*

reared three young. We were less successful with these during 2006, rearing only three Pekin Robins and failing to breed any Silver-eared Mesias. Several of the species bred recently are rare in aviculture or in the wild. The Critically Endangered Blue-crowned Laughingthrush *Garrulax courtoisi*, one of four species of laughingthrushes we keep, arrived in 2005 and produced five young during 2006. A clutch of three eggs was removed and artificially incubated and the chicks were hand-reared. Soon afterwards a replacement clutch was laid and the parents successfully reared two more young.

Formerly regarded as a subspecies of the Yellow-throated Laughingthrush *G. galbanus* it is, following taxonomic changes, now recognised as a full species (Collar, 2006) and classified as Critically Endangered in the wild in China. The newly-named Sumatran Laughingthrush *G. bicolor* was formerly regarded as a subspecies of the White-crested *G. leucolophus*, but is now considered different enough to warrant full species status. Thought to be very rare in the wild on Sumatra, it is currently classified as Vulnerable.

One of these, a male, was hand-reared here in 2005. It was, we believe, the first time this species had been bred in the UK. Two further chicks were hand-reared in 2006. Despite several nesting attempts we have been unable to produce any parent-reared young. In addition to our breeding pair we also have a bachelor group. At Paultons Park in Hampshire Geoff Masson also has a pair and a female was hand-reared there in 2006. Between our two collections, we are trying to establish this rare and beautiful laughingthrush in captivity. We know of a few others in the UK, but these are males. There is a paucity of females in the small population and we are very keen to hear from anyone who keeps this species.

A pair of Red-tailed Laughingthrushes *G. milnei* arrived from Jersey Zoo in 2005 and reared their first young in 2006. The fourth species of laughingthrush we keep at Waddesdon Manor is the Chestnut-capped *G. mitratus*. We have three here and a fourth out on loan with a private aviculturist, but unfortunately all four are females. Although this species is not rare in the wild, we would like to establish this lovely bird in captivity and again would like to hear from anyone who keeps it.

True thrushes are represented in the collection by the Orange-headed Ground Thrush *Zoothera citrina*, Chestnut Thrush *Turdus rubrocanus* and Chestnut-backed Thrush *Z. dohertyi*. Three Chestnut-backed were parent-reared at Waddesdon in 2006. This beautiful Indonesian thrush is being bred by a number of dedicated aviculturists and a few zoos and other collections in the UK, with the aim of establishing a self-sustaining captive population.

Threatened studbook managed species at Waddesdon include the Bali Starling *Leucopsar rothschildi*, Omei Shan Liocichla *Liocichla omeiensis*, Luzon Bleeding Heart Dove *Gallicolumba luzonica* and the aforementioned Blue-crowned Laughingthrush.



Andrew Owen

Chestnut-backed Thrush.

Hand-rearing is a useful way to increase the numbers of difficult and rare species and a number of these have been bred over the past few years using this technique. It is of course a very time consuming way to rear birds, even for those working with them full-time, as everything else has to stop so that the chicks can be fed.

A highly successful hand-rearing diet for a variety of passerines has proved to be two parts pinkie mice to one part papaya, blended to a fine consistency with multi-vitamin powder added. Most will lay a replacement clutch of eggs within a week or two of their young being taken for hand-rearing, so there is every opportunity of them rearing a follow-up brood.

As well as those species mentioned above, we have also successfully hand-reared Pekin Robins, Silver-eared Mesias, Grosbeak Starlings *Scissirostris dubium*, Fairy Bluebirds *Irena puella* and Rufous-bellied Niltavas *Niltava sundara*. In addition, seven Large Niltavas *N. grandis* have been hand-reared in the past two years for Bob Jewiss, a private aviculturist, in an attempt to build up the number of this lovely flycatcher in captivity.

The construction of several off-show aviaries has helped us maintain second and even third pairs of the same species and the secure, quiet



Andrew Owen

Male Rufous-bellied Niltava.



Andrew Owen

Sumatran Laughingthrush.



Andrew Owen

A trio of Large Niltava chicks.

surroundings, have helped with the breeding of some of our more sensitive birds.

Head Keeper Ian Hadgkiss said that 2006 was the best breeding season at Waddesdon (for softbill species at least) with 14 species reared to independence.

Cooperation between breeders is very important and we have developed good links with a number of UK collections and private breeders, with whom we exchange birds and place birds on breeding loan. We would welcome contact with other aviculturists who keep any of the species mentioned above. In this way we may be able to pair up individual birds and put other breeders in touch with each other. Contact can be made with Head Keeper Ian Hadgkiss or myself by Tel:01296 65386 or E-mail:Andrew.Owen@nationaltrust.org.uk

Reference

Collar, N. J. 2006. A partial review of Asian babblers (Timaliidae). *Forktail* 22:84-112.

Waddesdon Manor (website:www.waddesdon.org.uk) was built by Baron Ferdinand de Rothschild. On a hilltop overlooking Aylesbury Vale, it has one of the finest Victorian gardens in the UK, at the heart of which is the Aviary.

THE CORNCRAKE SPECIES RECOVERY PROGRAMME

by Jamie Graham

Background and history

The Corncrake *Crex crex* is the only globally threatened bird species that breeds regularly in the UK.

A land rail (order Gruiformes, family Rallidae), it measures 27cm-30cm (approx. 10¹/₂in-11³/₄in) in length. It has a relatively short pinkish bill, a broad grey stripe above the eyes, a grey neck and breast and brown and white barring on the flanks. The upperparts are mainly buffish, with a dark centre to the feathers, especially those on the back. The bright chestnut wing-coverts and inner flight feathers are fully revealed when the Corncrake flies. It has pale flesh-pink coloured legs and feet.

Related species include the Spotted Crake *Porzana porzana*, Water Rail *Rallus aquaticus*, Moorhen *Gallinula chloropus* and Coot *Fulica atra*. Like many rails the Corncrake is a difficult bird to see. The best time to spot this secretive species is in late April and early May soon after it has arrived back in the UK, when the vegetation is still low.

The Corncrake is more often heard than seen. It gets its scientific name, *Crex crex*, from the male's loud, grating, repeated "crex-crex" call. Soon after arriving back in the UK he starts to call from a small patch of higher ground and continues to call until he has found a mate. Having found a mate, he stops calling for about two weeks, then starts again to try to attract a second mate. He sometimes calls during the day but is famed for calling throughout the night.

In the nineteenth century the Corncrake was found throughout most of the UK and the population numbered hundreds of thousands. Yet by the late 1970s the UK population had suffered a drastic decline and there were only a mere 1,000 calling males. The Corncrake's decline was due to modern intensive farming methods, particularly the rapid introduction of mechanised grass-cutting and the taking of repeated cuts of grass through spring and summer for silage (winter feed) which deprived the Corncrake of its preferred habitat. Earlier harvesting also led to the destruction of nests and the killing of sitting birds and chicks.

North-west Scotland, especially the Hebrides, is now the only place in the UK where the Corncrake continues to breed in any numbers. The reason it survives there is that the crofters (small-scale tenant farmers) continue to farm in a Corncrake-friendly, non-intensive manner. They do not cut the grass before August 1st and this gives the female Corncrakes enough time to nest and raise their first brood and in many cases their second brood as well. Furthermore, they always cut the fields from the centre outwards in a

circle or in large strips so that any adults and/or chicks have enough time to escape to the edges which are always left to grow wild.



Nineteenth century distribution.



Distribution in 2006.

The RSPB (Royal Society for the Protection of Birds) has produced a leaflet which includes a five-point plan that lists the basic requirements of the Corncrake to breed successfully:

1. Early Cover – An area of vegetation sufficiently tall for Corncrakes to find refuge in April and early May when they return from Africa. First nests are in this habitat.
2. Provide Nesting Habitat - An extensive area of ungrazed meadow (with grass for hay or silage) in which to feed in and in which the second nest is made and in which the birds can remain concealed.
3. Manage Nesting Habitat - These meadows must be mown or grazed no earlier than August 1st and preferably later to allow the Corncrakes to successfully rear a second brood.
4. Corncrake Friendly Mowing - A method of cutting that minimizes the chance of young birds being trapped or injured during harvesting.
5. Late Cover - Areas of tall vegetation in which Corncrakes can hide



J. Graham

One of our breeding male Corncrakes.

and feed after the hay and silage fields have been cut or grazed.

The Zoological Society of London (ZSL), RSPB and Natural England Species Recovery Programme (SRP)

Although the number of Corncrakes is increasing in Scotland, it was clear that it would find it difficult to gain a foothold in England again without habitat protection. That was why a partnership was set-up between The Zoological Society of London (ZSL), RSPB and English Nature (now Natural England). The ultimate aim of the programme is to secure the future of the Corncrake in the UK.

In 2000 an RSPB site on the fens north of Peterborough was identified as being suitable for Corncrakes to breed. In February the following year

15 captive-bred Corncrakes were imported from Germany. They were quarantined at Chester Zoo and later transferred to specially designed breeding pens at Whipsnade Wild Animal Park (WWAP).

The partners agreed that they would like to release 100 Whipsnade-bred Corncrakes each year. In the first couple of years though only a handful of birds were able to be released, due to the programme wanting to release only parent-reared stock and having had too few breeding birds at the start of the programme. In 2002 a further 15 were imported from Germany to add to the breeding stock. This led to a more successful breeding season the following year. The number released though was still short of the target of 100, but the longer the programme continues more experience is gained as to how to maximise the breeding potential of our limited number of birds.

The 2003 breeding season was my first at Whipsnade Wild Animal Park. By then some of the breeding birds were getting old. On average a wild Corncrake has only one breeding season, yet some of our breeding stock was heading for six to seven years old. In the spring of 2005, four wild-caught males were imported from Poland and in late summer 11 second clutch chicks were collected on the island of Coll in the Inner Hebrides, north-west Scotland. These replaced the very old Corncrakes which were lost over the winter.

Breeding

At the start of April the birds are placed in the breeding pens. We have 21 individual pens that measure approximately 2.5m sq (27sq ft). They contain a mix of wild grass and nettles which is perfect for the birds, as they need the grass to breed in amongst and also need the nettles as cover. Each bird is housed separately until the males start to call regularly and the females appear receptive. We have a very simple way of telling when each female is ready. In each pen there is a small wooden table under which we place food and, when the table becomes covered with faeces it shows that the female has been standing on the table most of the night trying to locate a calling male.

When a male is placed with a female, he remains with her for about two weeks before she starts to lay. In this time he must mate with the female and make a nest that meets with her approval. He makes a scrape in the ground and using the surrounding vegetation, usually long grass and nettles, he swirls some of the grass around and creates a soft cup in which the female lays the eggs. She will lay between seven to 12 eggs. After the fourth egg is laid, the male is removed and plays no part in the incubation, which takes 16-20 days.

We do not allow the females to incubate the eggs for the full incubation period. This is because the chicks become imprinted on their surroundings, which were the females allowed to hatch the chicks, would include the night sky at Whipsnade rather than that of the release site. It is thought that

Corncrakes migrate using star mapping as a navigation tool and studies have shown that they return to within a mile (1.6km) of where they were hatched and reared. Hand-rearing the chicks also helps us maximize the number produced each year. In an ideal world we would prefer the chicks to be parent-reared indoors here or outdoors at the release site, but we would still need a much larger breeding stock to produce anywhere near the number we are releasing at the moment.

Artificial incubation

With most of the hard work having been done by the females, the eggs are usually collected at 15 days and placed in incubators, although recently we have picked up fresh eggs and incubated them from scratch. The incubators are set at 37°C (98.6°F) with 70% humidity. Although the incubators are of the automatic tipping variety, we still turn the eggs five times a day until internal pipping occurs. At this point we transfer the eggs to a hatcher set at the same temperature but with slightly higher humidity of 75%. When the chicks hatch they are placed in a large drier set at 35°C (95°F) for about 12-24 hours while the chicks absorb the rest of the yolk sac. After this they are transferred to a large brooder to be reared. This takes 10-12 days.

Rearing

When the chicks hatch they are covered in black down and their eyes are open and within 24 hours they have the ability to move around very well. Unlike many other precocious chicks they need intensive rearing, as it can take up to six days before they start to feed themselves. Therefore, up until the time when they are feeding themselves they require hourly feeds from 8.00am-6.00pm then a late feed at 9.00pm. Then, dependent on the chicks' feeding behaviour, the feeds are reduced to every two hours. The keeper's hand and forearm are covered by a brown sock and the chicks are fed from behind a screen using a pair of red plastic tweezers. This is to ensure that the chicks do not become imprinted on humans. When they do see us we make sure that they associate it with a negative experience, e.g. when we catch them in order to clean their enclosures, we do not use the sock on the hand and forearm, so that they never associate the sock with the keepers.

The chicks' growth rate is phenomenal. When they hatch they weigh about 8g and by the time they leave us in 10-12 days time they weigh 60g-80g. All of the chicks undergo health checks and faecal samples are taken at four days old and at eight days old. After leaving us they spend three weeks in outdoor pre-release pens at the release site at the RSPB's Nene Washes reserve in Cambridgeshire. There they undergo a further health check and are ringed (banded). Before they are released they must have reached a specified weight which varies according to the age and sex of the



J. Graham

Corncrake nest at Whipsnade Wild Animal Park.



J. Baines

The release site on the RSPB's Nene Washes reserve.

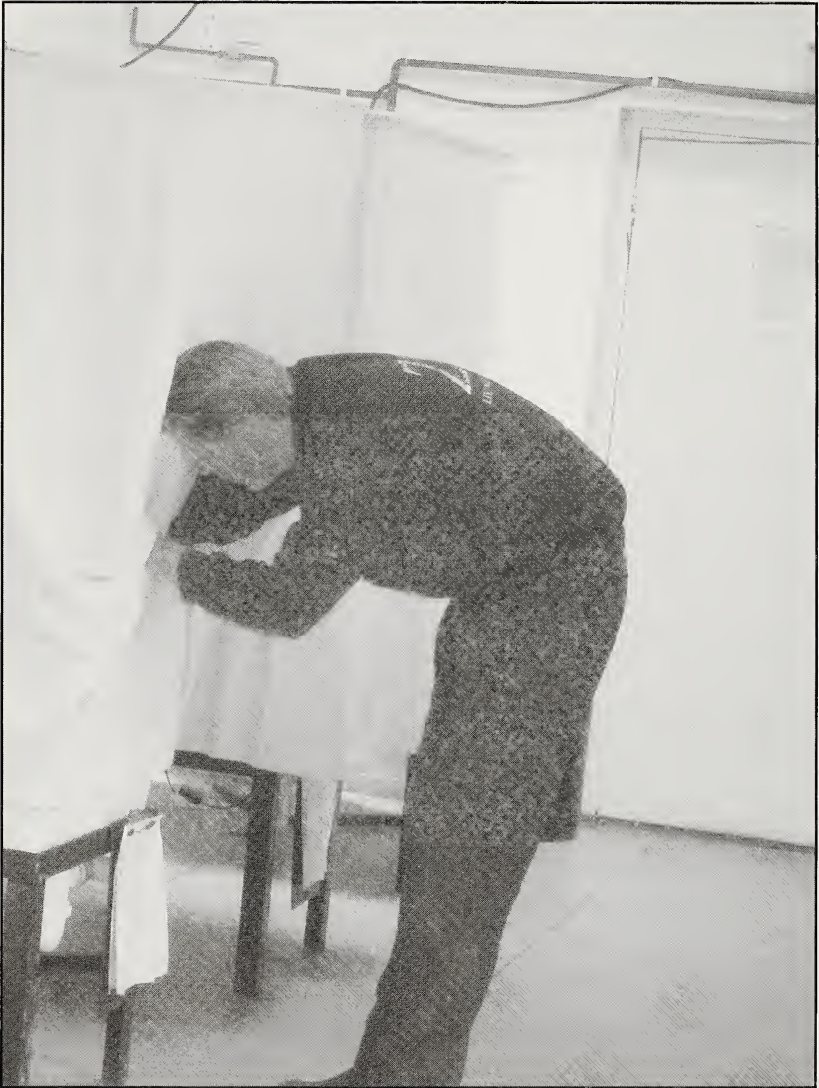


Corncrake chicks.

J Graham

bird, but should be at least 120g. If they have not reached the correct weight they are held back for another week or so.

All of the measurements of the chicks are recorded and they are weighed and their weights compared on a chart to the weights of wild chicks of the same age. At two weeks old the birds still have another two to three weeks

*J. Baines*

Author feeding chicks from behind a screen.

as sub-adults. They look like adult birds, the only differences are their weight and the fact that the primary feathers are not fully grown. A very important measurement is that of the remaining feather sheath left on the primaries (Dr Rhys Green of the RSPB is an expert on this). The reason it is so important is because the Corncrake migrates as soon as the primaries are fully grown. The remaining feather sheath indicates how much longer the bird will remain on the reserve before it migrates.

Releases, migration and returning birds

They spend roughly two weeks on the reserve feeding and readying themselves for the 1,500 mile (approx. 2,400km) flight to Africa for the winter. Because of their secretive behaviour their winter range is imperfectly known. It is believed that the majority of European (and Asiatic) birds winter in sub-Saharan Africa, especially the eastern half of the continent.

The following spring wardens at the release site go out each evening to listen for the calls of returning male Corncrakes. Sixty-three Whipsnade-bred birds were released in 2003 but none of these were known to have returned in 2004, in which year a further 72 were released. In 2005 a male was heard calling at the release site and was caught and found to be one of the birds released in 2004. It was the first proof that a hand-reared bird could migrate to Africa and return the following spring, having undertaken a round trip of approximately 3,000 miles (4,800km). In the 2005 season 78 Whipsnade-bred birds were released. In 2006 four males were heard calling at the release site, three of which were birds released in 2005 and one which was a wild bird which seemed not to have bothered to make its way back to Scotland or more positively it may have been hatched on the Nene the previous year. We regard this as a major success, as the males exhibited behaviour that suggested they had all mated. The males call continuously until they find a mate, after which they stop calling for about two weeks and then start calling again. The birds that have returned have done this twice which suggests they mated twice. The only drawback with this method of Corncrake surveying is that it records only the males, we have no idea how many females have returned.

At the time of writing (2006) we are drawing to the end of another busy breeding season. With the success of the past two years of having birds return and the introduction of new stock, the programme is looking very healthy. There is though still a lot of work to do and it will be quite a few years yet before there is once again a self-sustaining population of Corncrakes in England.

Jamie Graham, Senior Keeper, Bird Section, Whipsnade Wild Animal Park, The Zoological Society of London, Dunstable, Bedfordshire LU6 2LF, UK. Website: www.whipsnade.co.uk.

**KEEPING AND BREEDING THE GREATER BIRD OF
PARADISE *Paradisaea apoda* AT AL WABRA WILDLIFE
PRESERVATION, QATAR AND WALSRODE BIRDPARK,
GERMANY**

by Simon Bruslund Jensen

The Greater Bird of Paradise was bred in captivity for the first time at Walsrode in Germany in 2001, unfortunately the female was later lost and the breeding success was not repeated. However, methods first developed at Walsrode were implemented at Al Wabra Wildlife Preservation (AWWP) in 2002 and resulted in successful breeding that same year and to date 22 chicks have been hatched at AWWP in Qatar.

At Walsrode initially massive problems were encountered in the effort to breed birds of paradise. Eggs were destroyed and/or were infertile. However, much experience was gained over a period of three years and it was learned that the males, when kept together with the females, would consistently destroy the nests and eggs. When the males were separated from the females, the females would lay eggs and incubate them, but these often proved infertile due to the difficulty of judging the right time to place the pairs together and quite frequently the female would destroy the nest and eggs herself. Important lessons were learned on timing and in particular the birds' sensitivity to disturbance. In June 2001 a single chick hatched in an off-exhibit breeding aviary. It was successfully reared by the female and proved to be a male. Unfortunately, the death of the female the following winter ended any further hope of breeding the Greater Bird of Paradise at Walsrode.

After working for three years as a keeper at Walsrode I took up the position as Curator of Birds at Al Wabra Wildlife Preservation early in 2002. The Greater Bird of Paradise is also maintained at AWWP and similar problems had been encountered when trying to breed this species. Implementation of the methods developed at Walsrode quickly led to the first breeding success, when in May 2002 as a precaution an egg was removed for artificial incubation and the chick was hand-reared. This was followed shortly afterwards by another chick from a different pair. Our husbandry methods were further developed and improved, not least by incorporating what had been learned breeding other species of birds of paradise at the Bronx Zoo (Hundgen, 1988, 1991) and at San Diego Zoo (Rimlinger, 1984) in the USA. Extensive health monitoring and documentation allowed for experimental diet modifications that have effectively reduced the problems caused by iron storage disease that almost completely depleted the population of Greater Birds of Paradise at Walsrode (Marcordes pers. comment). Iron storage

disease was also the biggest health problem with captive birds of paradise in other collections (Hundgen, 1988).

At AWWP a total of 22 chicks have hatched to date in a managed internal breeding programme that seeks to represent as many founders as possible in the population, with the aim of developing a long-term viable captive population. This is achieved by interchanging breeding males and even by restricting breeding by highly productive individuals and instead encouraging non-breeding birds, so that all female founders are equally represented. So far nine founder birds have reproduced and the first generation female showed the first signs of breeding behaviour in 2006.



Simon Bruslund Jensen/AWWP

Lek of displaying male Aru Island Greater Birds of Paradise at AWWP.

Ongoing studies have produced some initial results from data collected on the age at which young birds of paradise become mature: both when they are able to reproduce and also when they develop full plumage. These seem not to be entirely related to each other, for males are sexually mature before they develop full plumage which may take up to seven years. We have also undertaken research on DNA-sexing and endoparasites. The latter have proved to be a particular problem especially amongst parent-reared young, which may suffer infections if they are not prevented in time (Schulz & Hammer et al. 2004).

A size variation was detected among the birds of the founder population. Our birds were all purchased years ago in south-east Asia. Their exact origin

is unknown but it is likely that they are all wild-caught birds. Not knowing the locations they came from made it difficult to determine which of the two recognised subspecies they might belong to. However, all of our birds were measured and by comparing their measurements with those given by Frith & Beehler (1998), it was obvious that we have two distinct groupings within the population and these match the sizes of the two recognised subspecies. In addition to the measurements we were also able to determine that there are marked differences in their weights, with no overlap whatsoever between the adult birds of the two groupings.

As a result, the birds at AWWP are now managed as two separate populations: the larger birds as the Aru Island Bird of Paradise *P. a. apoda* group and the smaller birds as the Mainland Greater Bird of Paradise *P. a. novaeguineae* group. Before the two groups were identified and separated, a few hybrids were produced, but these were subsequently taken out of the breeding programme. Interestingly the hybrid forms present intermediate values both with regard to size and weight and have proved to be much more vulnerable than the other offspring.

Table 1. Average weights of adults based on 31 birds.

Aru Island Bird of Paradise	
Male	365g (range 330g-429g)
Female	220g (range 205g-232g)
Mainland Greater Bird of Paradise	
Male	229g (range 205g-255g)
Female	171g (range 154g-193g)

Husbandry

Feeding

The birds are fed twice a day, with the diet of the adult birds being relatively simple and mainly fruit based. Large amounts of fruit, especially papaya, are consumed, with mango, pear and apple also being offered daily. This is varied regularly with mulberries, oranges, grapes, bananas, watermelons and other fruits. Commercial pellets for fruit-eaters are also offered twice a day, the amount varying depending on the size of the particular bird. In the morning 7g-10g Ziegler® Bird of Paradise pellets are presented to each bird and in the afternoon each bird receives 2g-4g Wittemolen® Mynah Granulate. Both of these products, which we have tested on a regular basis in independent laboratories, have a steady iron content of less than 65ppm. Past experience with pellets containing higher measurable amounts of iron than 100ppm, resulted in birds quickly showing symptoms of iron storage disease. Livefood such as mealworms is fed once a week, when each bird receives five. They are of course also able to catch insects that

enter their flights. Feeding rations are tailored to suit each individual bird's consumption and there is very little waste. Vitamins and minerals are sprinkled over the food three times a week.

Housing

The birds are kept in large well-planted flights, each with access to a climate controlled inside enclosure in which the birds are fed. Male Greater Birds of Paradise become animated by observing each others' displays; in contrast the females can be aggressive towards each other. Therefore two males are often housed next to each other with the females in adjacent flights each side. Pairs are allowed access to each other as long as the female shows interest in entering the enclosure of the male, when this is not the case they are kept separated most of the time. If a female shows interest in a particular male and breeding behaviour such as mating or nest building is observed, the birds are monitored more closely. To achieve a successful breeding, timing is of the essence. It is important to allow the birds to remain together long enough to mate, but not long enough for the male to destroy the nest or egg. On some occasions females build their nests in very exposed positions or have been proven to destroy their eggs. In such cases the eggs are removed for artificial incubation. Due to the very hot summer climate in Qatar we also remove eggs laid in the outside flights during the hottest months. We do this not only to secure the eggs but also spare the female from the strain of having to sit on the nest all day in the blazing sun. Greater Birds of Paradise consistently lay single egg clutches and the egg is incubated exclusively by the female. She will abandon the nest and egg if she is convinced that the nest site has been compromised either by a keeper or by a male bird. Not infrequently the female will eat the egg and even a small youngster and will destroy the nest before it can be reached by an intruder.

We provide the birds with open baskets and nest material in the form of hay, fresh grasses, large dry leaves and thin sticks throughout the year. Only rarely is the same nest site used twice and it has proven beneficial to change the nest baskets or move them around when they are not in use. Most breeding occurs in the spring from late February until July. Mid-summer the birds normally start to moult and there is a halt in breeding activity until late autumn when some birds may start breeding again.

Artificial incubation

Greater Bird of Paradise and other bird of paradise artificial incubation records indicate that a comparatively high temperature and humidity produce the best results. An incubation temperature of 37.8°C-37.9°C (100°F-100.2°F) and a weight loss aim of 13.5% have been found to produce superior



Simon Bruslund Jensen/AWWP

Mainland Greater Bird of Paradise nest containing an infertile egg.

results. Eggs have been turned eight to 14 times a day with good results, whereas an egg that was turned more than 24 times a day failed to hatch, although the turning frequency could not be confirmed as the cause. The incubation period for the single egg clutch is 16-17 days, with the vast majority hatching on day 16. At internal pip the turning of the eggs is normally discontinued, although the time between internal pip and the first external pip is often exceedingly short and regularly the hatching process is not detected until the external pip has started. The eggs are subsequently transferred to the hatching unit and kept at a temperature of 37.5°C (99.5°F) and relative humidity of about 80%. During the hatching period and the first few days afterwards we have found it is very important to maintain the correct temperature. Hatching can take 12-46 hours (average 29 hours). If progress stalls we generally start assisting by chipping some of the shell away about 36 hours after external pipping.

Hand-rearing

Soon after hatching chicks are weighed and the umbilicus area is disinfected with iodine, then they are moved into a brooder. The temperature in the brooder is maintained at 37.1°C (98.8°F). If the temperature is too low the chick is likely to remain unresponsive at feeding time. The feeding



Simon Bruslund Jensen/AWWP

Five days old Aru Island Greater Bird of Paradise being hand-fed at AWWP. Note the syringe holding a small amount of water which is given to the chicks after each feed.

response is stimulated by whistling softly or gently touching the chick. Immediately after hatching the humidity is lowered to 65%-70% and then gradually lowered to about 55% over the course of a few days. The temperature in the brooder is lowered by approximately 0.5°C each day and by the time the chick fledges the temperature is being maintained at about 29°C-31°C (84.2°F -87.8°F). After a further few days the chick can safely be kept at room temperature without the need of additional heat.

Fluids in the form of Lactated Ringers solution mixed 1:1 with water are given orally in very small amounts every hour after hatching. If the hatch was prolonged or the chick appears weak a small amount of glucose is added to the solution. Depending on the degree of absorption of the yolk sac the first solid food is fed to the chick 12-20 hours after hatching and is limited to one or two small pieces of high protein food such as cricket abdomen or rat organs. It is essential to restrict food intake during the first few days until the yolk sac has been fully absorbed and is no longer visible through the skin of the abdomen. After that the chick is fed as much food as it will accept in suitable bite sizes. We have used organs and muscle meat from newborn mice and rats, soft white mealworms and pupae, cricket abdomens, soft papaya, pear, banana, mango and grapes. During the first week mice, rats and insects make up the larger portion of the diet, after which the amount of fruit is gradually increased and by the time the chick leaves the nest, about half the amount of food fed to it is fruit. The amount of insects and meat is slowly decreased during the following months and by three to four

months it is offered the same diet as the adults.

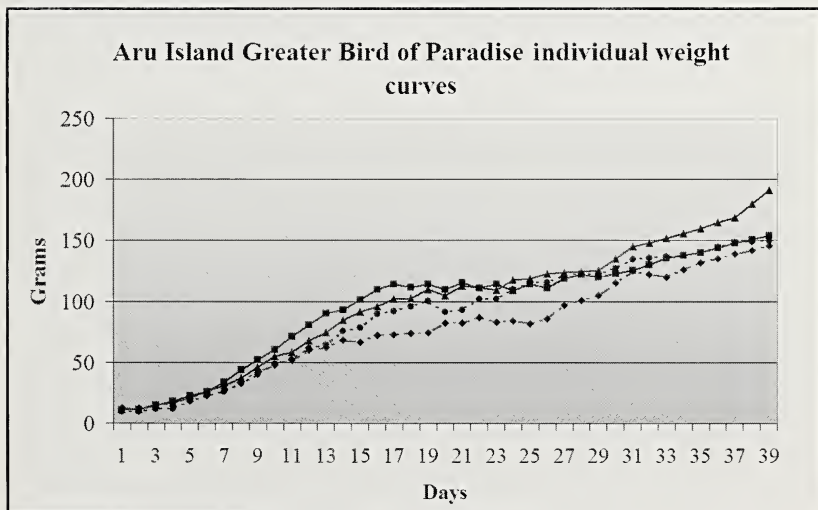
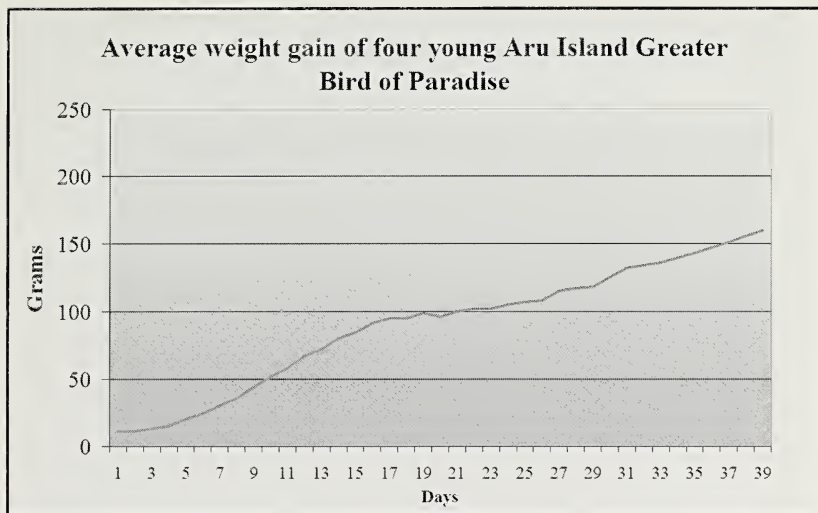
From the beginning the chicks are fed only during the daytime - in our case a 14 hour day. Care is taken not to disturb the chicks during the night, when it is essential they are allowed to conserve energy. Initially they receive 12-16 feeds a day at just under one hour intervals. When the chicks are about two weeks old, the intervals are increased to two hours. On reaching 30 days they are fed five times a day and are encouraged to feed themselves. By 50 days they should be fully weaned.

A faecal sac is normally produced after each feeding session. If one is not produced following two or more feeds or if the membrane is fragile, it is more often than not a sign of problems. The most frequently encountered problem is stress or dehydration. Greater Bird of Paradise chicks are particularly shy and easily become stressed when there is activity or noise in the room. Keeping more than one chick in the same brooder unit has consistently led to problems. Stressed chicks are very susceptible to secondary infections.

The chicks are kept in plastic cups lined with tissue and a plastic mesh. It is exceedingly important that the chicks can grip the lining of the cup with their large feet. If they are unable to do this, deformities such as bent toes and even twisted tarsus can quickly become irrevocable. Greater Bird of Paradise chicks are in general more sensitive and difficult to rear than those of other birds of paradise that have been hand-reared at AWWP. The chicks are weighed and the nest cups are changed daily, however, due to the chicks' nature and also the sensitivity of their legs it may be advisable to keep handling of the chicks to a minimum. Young Greater Birds of Paradise continue to grow long after they have become independent and males continue to gain weight for at least one year.

Table 2. Development stages of juvenile Greater Bird of Paradise.

Days	Development stage
1-3	Blind and naked.
4	First growth of pin-feathers on the wings.
5-8	Pin-feathers developing all over body.
6-8	Eyes start slitting.
12	Feathers start breaking out of sheaves on wings.
15-19	Standing in nest, stretching and flapping wings.
18-20	Fledges and does not return to nest.
20-25	Immobile on perch waiting to be fed.
25-30	Starting to become active; approaches to receive food.
28	Almost fully feathered.
29-32	Starts feeding itself.



All the above charted weights are for hand-reared chicks.



Simon Bruslund Jensen/AWWP

Aru Island Greater Bird of Paradise aged approximately 10 days old.



Simon Bruslund Jensen/AWWP

Young recently fledged parent-reared Mainland Greater Bird of Paradise at 18 days.



Simon Bruslund Jensen/AWWP

Young Aru Island Greater Bird of Paradise starting to become mobile at 25 days.

Acknowledgements

My thanks to the Bird Department staff at Al Wabra Wildlife Preservation, in particular Dean Tugade, who spent many hours with me hand-rearing birds of paradise. I also thank Sven Hammer, Director of Wildlife and Veterinary Services at Al Wabra Wildlife Preservation and HE Sheikh Saoud Bin Mohammad Bin Ali Al-Thani.

References

- Bruslund Jensen, S. and Hammer, S. 2003. Breeding Birds of Paradise at Al Wabra Wildlife Preservation. *International Zoo News* 50, 5:276-279.
- Bruslund Jensen, S. and Hammer, C. 2003. Paradiesvögel – ihre Haltung und Zucht im Al Wabra Wildlife Preservation in Katar. *Gefiedert Welt* 127, 9:262-265.
- Bruslund Jensen, S. 2005. Breeding Birds of Paradise at Al Wabra Wildlife Preservation, Qatar. *AFA Annual Conference Proceedings 2005:73-76*.
- Friith, C. B. and Beehler, B. M. 1998. *The Birds of Paradise*. Oxford University Press, Oxford, New York, Tokyo.
- Hammer, S., Jensen, S., Balzer, J. and Sandow, D. 2003. DNA Sexing in Birds of Paradise and Bowerbirds. *International Zoo News* 50,3:156-159.
- Hundgen, K. H. 1988. Propagation techniques for Birds of Paradise at the New York Zoological Park. *AAZPA 1988 Annual Proceedings:14-20*.
- Hundgen, K. H. 1991. Management and breeding of the Red Bird of Paradise at the New York Zoological Park. *International Zoo Yearbook* 30:192-199.
- Rimlinger, D. 1984. Empress of Germany's Bird of Paradise. *Zoonooz* Feb. 1984:11-14.
- Schulz, J., Bruslund Jensen, S., Arif, A., Taha, A. and Hammer, S. 2004. *Indoparasite Management in Captive Birds of Paradise*. Poster presentation, European Association of Zoo and Wildlife Veterinarians (EAZWV) Meeting, Ebeltoft, Denmark.

After more than five years in charge of the bird collection at Al Wabra Wildlife Preservation, Simon returned recently to Walsrode to take up the position of Senior Curator. E-mail:simon.jenson@vogelpark-walsrode.de

AVICULTURAL MAGAZINE BACK ISSUES

The society has a large stock of back issues mostly from 1935 onwards but there are also some earlier issues still available. They are priced £3.00 each (including p&p). Please check availability before placing an order. Overseas members may be able to pay by credit card through a PayPal invoice, but this service is not available in all countries. All enquiries should be addressed to: P. Boulden, Hon. Secretary/Treasurer, Avicultural Society, Arcadia, The Mounts, East Allington, Totnes, Devon TQ9 7JQ, UK or E-mail:admin@avisoc.co.uk

ON A VISIT TO CHESTNUT LODGE

by Fred Barnicoat

I have enjoyed reading the *Avicultural Magazine* for the greater part of my lifetime, and my set - I am missing only four issues since November 1894 - is a treasured possession. The Avicultural Society's history is fascinating, as is its reflection of over a century of avicultural history and, in a way, even of world history. Of particular interest to me have always been the accounts of the annual garden parties hosted by the President, Alfred Ezra, at his superb home, Foxwarren Park, Cobham, Surrey, which was destined to become an avicultural legend.

The first of these accounts was written by David Seth-Smith for May 16th 1925. Some 40 members had accepted the invitation of Mr and Mrs Ezra, who had kindly provided a charabanc (a motor coach) for the party departing at 3.00pm from Hyde Park Corner in central London. Foxwarren Park extended over some 300 acres (approx. 120 hectares) of sandy soil, very suitable for birds and mammals on account of its dryness, and the grand house, surrounded by large and pretty flower gardens with ornamental pools and fountains was in a commanding position overlooking Wisley Common, with the Surrey Downs and beyond in the distance. The party moved down through the lovely gardens in which Demoiselle Cranes *Anthropoides virgo* and both Grey-winged Trumpeters *Psophia crepitans* and Green-winged Trumpeters *P. viridis* walked free, to a well-lit birdroom in which innumerable sunbirds, hummingbirds, starlings, fruitsuckers, niltavas, robin-chats, pittas, etc. were tastefully displayed; then on to the range of very large aviaries ideally sheltered from cold winds between two plantations of larch trees, and bathed in sunshine. The avian gems they contained, and their breeding triumphs, destined to become an on-going story for the next 30 years, are far too numerous to mention here. Pride of place perhaps went to the unique blue Alexandrine Parrakeets *Psittacula eupatria*, and, of course, the Pink-headed Ducks *Rhodonessa caryophyllacea*, already nearing extinction, happily swimming on their lovely lake. The party returned to the house and, after a sumptuous tea, paid a visit to the extensive area of woodland and open heather- and gorse-covered land, fenced into huge paddocks for kangaroos, wallabies, Blackbuck *Antelope cervicapra* and deer, with various pheasants, including monals, cranes and chukor partridges roaming about, and brush turkeys building their huge mounds of leaves to generate enough heat to incubate their eggs. The farm with its Jersey herd, llamas and Shetland ponies was also on view. Small wonder that it was past 8.00 pm when the charabanc reached London with its well entertained and inspired passengers.



Cyril Laubscher
Helen Hughes, the Hon. Editor, Raymond Sawyer and Fred Barnicoat.



Cyril Laubscher
Caribbean or Rosy Flamingos.



Daniel Shearing

Caribbean or Rosy and Greater Flamingos, the latter feeding a chick.

The accounts of these garden parties were almost annually repeated in the *Avicultural Magazine*. As Jean Delacour wrote in 1926: “Mr Ezra being continually building new aviaries and extending his collections, it is rather a difficult task to give an account of them which will not be out of date at the time it is published.” Whoever wrote about Foxwarren Park came under the magical spell of the place, and between the lines, the same sort of wistful sigh – “ah, Foxwarren Park” – is discernable.

Soon after the death of Alfred Ezra OBE in 1955, the name of his daughter, Miss Ruth Ezra, residing at Chestnut Lodge, Cobham, Surrey, appeared in the Avicultural Society membership list. I had always assumed that Chestnut Lodge was part of the Foxwarren Park estate, but it is in fact an entirely separate property just a few miles (kilometres) away. Strangely enough, when Ruth Ezra purchased the property, the address had already appeared in the long annals of the Avicultural Society, for I have discovered Chestnut [sic] Lodge, Cobham, Surrey, was the address of a Miss Florence E. Wigram who was listed as a member from 1903-1908. This property has been destined to play an enormously prominent role in the history of the Avicultural Society, because here Ruth Ezra and Raymond Sawyer (Mr & Mrs Raymond Sawyer since April 14th 2004) have established one of the finest privately owned collections of birds in the world. Ruth Ezra succeeded Jean Delacour as the Avicultural Society President over 20 years ago, and the annual garden party has continued to be the highlight of the society's year.

I live in Johannesburg, South Africa, and have not travelled very much in my life, but in 2006 I was about to stay in England for a week with my friends, the well-known bird photographer Cyril Laubscher and his wife, on my way to the USA. I took the opportunity to write to Ruth Ezra and Raymond Sawyer, asking if it might be possible to view their bird collection. Imagine my excitement when by return of post I received such a kind invitation for Cyril Laubscher and myself to have lunch with them on Friday May 12th, and then view the collection. A further pleasant surprise was in store for me, in that our current Hon. Editor, Malcolm Ellis and Helen Hughes, a friend who had driven him to Cobham, were also invited, and I enjoyed one of the most interesting days of my life.

England in May is exquisite, and the journey by car to Cobham was through countryside in all its spring beauty. The house and grounds and aviaries are beautiful. I shall never forget the warm welcome I received, Raymond's delightful wit, the sumptuous lunch, the dining room table's silver centrepiece representing the animals of the English countryside, from the stag to the hedgehog, and Roland Green's original painting of the Pink-headed Duck from living specimens (two males and a female) at Foxwarren Park (published in the June 1932 issue of the *Avicultural Magazine*), along with numerous other bird paintings hanging in the hallway.

I refrain from going into detail of the birds in this wonderful collection, as I could not do justice to it. Suffice it to say that it is in a way a microcosm - albeit still a large and grand one - of Foxwarren Park. The house is in a commanding position on high ground overlooking superb gardens. Opposite its main entrance is a lovely lake with flamingos and other waterfowl. Cranes still prance at freedom on spacious lawns and there is still a herd of wallabies, including white ones. Very successful results are achieved breeding some

rare species of tortoise, for which heated quarters are provided for the winter, and for which there is a huge demand from zoos.

The magnificent aviaries reflect Raymond's love of and expertise in horticulture, and there are very successful attempts at particular aviaries reflecting specific habitats, e.g desert plains or rainforest. The more delicate and tropical softbills are provided with the comfort of hothouse conditions with tasteful tropical plants. The main theme of the collection is exotic softbills, so one gets to see many of the exquisite species of honeycreeper, tanager, sunbird, robin-chat, roller, flowerpecker, cotinga, etc. Several species of turaco have also bred well in the spacious, open aviaries. There are also a number of species of wading birds, e.g. *Avocets Recurvirostra avosetta* and plovers tastefully displayed in aviaries with ponds and close-cropped lawns, as well as beautiful shrubs and cacti.

Perhaps for me the most interesting part of the visit was the time spent looking through the old photograph albums of Foxwarren Park. The magnificent house looked even more impressive to me than Chartwell, still fresh in my mind from the previous day's unforgettable visit. There were photographs taken of Alfred Ezra and his brother Sir David Ezra, who was visiting from India. We reminisced about so many of the great characters in the long history of the Avicultural Society, most of all Jean Delacour, arguably the greatest aviculturist of all time, who loved visiting Chestnut Lodge to enjoy the company and the gorgeous birds to be viewed in the collection. He had celebrated his 90th birthday in this house, and had telephoned Raymond from California on the day before his death at the age of 95 in 1985. There are numerous treasures in the house - Ruth's mother had belonged to the highly distinguished Sassoon family - and memorabilia of visits by royalty and other events that have taken place here, as well as Raymond's many triumphs showing birds at the National Exhibition of Cage and Aviary Birds in his more youthful days - when through the years he won the Supreme Award at this most prestigious event more times than any other exhibitor, and, of course, in later years was sought as a judge more often than anyone else.

The time was so pleasant, it was gone in a flash. Ah, Chestnut Lodge! May it last forever.

* * *

PRESIDENT'S GARDEN PARTY

This year's President's Garden Party will be held on Saturday July 14th at Chestnut Lodge, Cobham, Surrey. Members are advised to book early for this popular event.

TWO SPECIES OF COTINGIDAE BRED IN GERMANY

In the December 2006 issue of the German avicultural journal *Gefiederte Welt*, pp.358-359, Dr Ulrich Schürer, Director of Wuppertal Zoo reported on the successful breeding of the Scarlet Cock-of-the-Rock *Rupicola peruviana* and the Purple-throated Fruitcrow *Querula purpurata*.



Copyright Chris Brack

At just over 11½ months old, the male Scarlet or Andean Cock-of-the-Rock, had started to acquire adult plumage.

In 2004 two Scarlet or Andean Cock-of-the-Rocks were reared successfully by the keeper of the Bird House, Thomas Rosner and his wife, and the following year one was reared. In 2006 the Scarlet Cock-of-the-Rocks bred again and this time the female was allowed to get on with it by herself. The clutch consisted of two eggs. One was infertile but the other hatched and the chick was very well looked after and reared successfully.

The Tropical Bird Hall was closed to visitors during the breeding. The pair of rarely imported Purple-throated Fruitcrows had been kept in the same hall and had tried to breed, but after the pair disturbed the breeding of the Scarlet Cock-of-the-Rocks, the pair was removed and housed in an aviary to which the public did not have access. There the pair nested and hatched a chick which was reared by the bird keeper. It is believed to be the first successful breeding of this species in captivity.

The report was accompanied by a photograph of the young fruitcrow, whose black plumage was still covered by the remains of the buff-coloured down, which may be useful as camouflage. This disappeared slowly. It has never been photographed before. A more detailed report of both breeding successes will be published shortly in the journal *Der Zoologische Garten*.

Our thanks to Dr Herbert Schifter for providing an English summary of Dr Schürer's report.

FUNDING SUPPORT TO CONTINUE

At the recent Council Meeting, held on Saturday March 31st at Waddesdon Manor, it was agreed that the society will continue to support the Hornbill Research Foundation's Hornbill Family Adoption Programme in southern Thailand. It will also continue to support Prof. Fen-qi's study of the Blue-crowned Laughingthrush *Garrulax courtoisi* (formerly considered a subspecies of the Yellow-throated Laughingthrush *G. galbanus*) in China, especially his search for *G. c. simaoensis*. Generous support will also continue to be given towards the cost of distributing the Foreign Bird Federation's *Breeding Register*.

In addition, the society has agreed to provide funding towards research aimed at learning more about the Bugun Liocichla *Liocichla bugunorum*, the new species discovered recently in north-eastern India (see *Avicultural Magazine* Vol.112, No.3, pp.123-124 (2006)).

NEWS ON THE CAPTIVE MANAGEMENT OF LEAR'S MACAW *Anodorhynchus leari*

by David Waugh and Matthias Reinschmidt

Lear's Macaw, a CITES Appendix 1 species endemic to north-east Brazil, is designated as Critically Endangered in the IUCN Red List (BirdLife International, 2006) because it has an extremely small population which breeds and is resident in one area (of 3,900sq km or approx. 1,500sq miles). In its semi-arid habitat of the caatinga it has a close relationship with the Licuri Palm *Syagrus coronatus*, which produces the hard fruits which form the major part of this macaw's diet. Given that stands of Licuri Palms formerly covered 250,000sq km (approx. 96,000sq miles) but have been vastly reduced by livestock grazing, it is threatened by the degradation of its habitat. It is further threatened by illegal trapping for trade (BirdLife International, 2000, 2006) and macaws are occasionally shot by farmers where attacks on maize crops occur.

Action for the conservation of the wild population and its habitat has been underway for a number of years and a plan was published recently to clarify and prioritise the necessary conservation measures (IBAMA, 2006). The plan includes the use of captive breeding as an *ex situ* conservation tool for the species. Loro Parque Fundación of Tenerife, Spain, together with the Brazilian Government agency IBAMA (Brazilian Institute of Environment and Renewable Natural Resources) and other partners, are contributing to the field conservation project. Furthermore the LPF Curator, Matthias Reinschmidt, is the international studbook keeper, with support from Onildo Marini-Filho of IBAMA and Ryan Watson of Al Wabra Wildlife Preservation (AWWP). This article presents current information about the captive population.

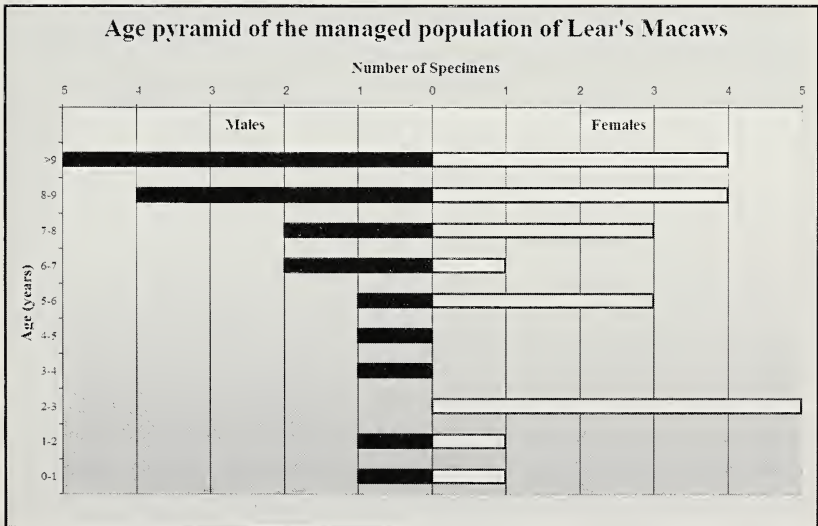
Table 1. Distribution of managed population.

Participating institution	Country	Status*
Al Wabra Wildlife Preservation	Qatar	4.5.0
Crax - Wildlife Research Society	Brazil	1.1.0
Harewood Bird Garden	UK	1.2.0
Loro Parque Fundación	Spain	2.2.0
Lymington Foundation	Brazil	2.4.0
Rio de Janeiro Zoo	Brazil	6.5.0
Sao Paulo Zoo	Brazil	3.5.0
* males, females, gender unknown.	Total	19.24.0

In the studbook (Reinschmidt, 2006) there are seven participating institutions with a total of 43 officially incorporated birds (Table 1). These currently form the managed captive population coordinated by IBAMA, the birds being on deposit from the Brazilian Government. There is an additional specimen confiscated in October 2006 by the competent authorities in Brazil, which will be incorporated into the managed population. Two further females are also likely to join the official population. In addition, there is an undisclosed number of Lear's Macaws in Switzerland, for which there is no definite prospect of inclusion in the officially managed population.

Demographically the managed population requires a breeding momentum to add more young birds, as can be seen in the age pyramid (Fig. 1). An improvement in the current sex ratio of 0.74, by the addition of more males is also required. However, the breeding programme is still at an early stage. Because most of the macaws were recruited into the population as confiscated young birds taken in their first year of life, these are close estimates of their ages, even though they are registered in the studbook as wild-caught. Furthermore, endoscopic examination of the condition and stage of development of the gonads of these birds reveal that at seven to eight years of age they are only just reaching reproductive maturity (Crosta & Timossi in litt.). This coincides with the first studbook registered breeding which occurred at Al Wabra Wildlife Preservation in Qatar, which has the oldest birds.

Fig. 1. Age pyramid of the managed population of Lear's Macaw.



Given that 42 of the studbook registered macaws are wild-caught, founders apparently constitute 97.6% of the captive population, a remarkable and positive situation. However, given that these macaws were taken from nests and often were confiscated together, there is a reasonable probability that the founders (which by definition should be unrelated) include siblings. However, despite this possibility, the genetic situation overall is favourable, as can be demonstrated by the work in progress of Prof. Cristina Miyaki and her team at the Institute of Molecular Genetics, University of Sao Paulo. Prof. Miyaki has carried out DNA analysis from blood samples obtained from these macaws and has been able to calculate a genetic similarity index between all of the individuals. Thus, she has all possible pairings ranked according to the statistical probability of genetic relatedness of the birds (in five categories ranging from lowest relatedness = A - highest relatedness = E).

Table 2. Pairings of Lear's Macaws in the managed population, with level of genetic relatedness currently and after re-pairing within each institution.

Level of relatedness	Current pairings		Re-pairings	
	No.	%	No.	%
Low (A, B)	5	29.4	11	64.7
Medium (C)	3	17.7	5	29.4
High (D, E)	9	52.9	1	5.9
Total	17	100.0	17	100.0

Table 3. Level of relatedness following possible re-pairings of Lear's Macaws within each institution.

Participating institution	Relatedness of pairings
Al Wabra Wildlife Preservation	1A, 1B, 2C
Crax - Wildlife Research Society	1E
Harewood Bird Garden	N/A
Loro Parque Fundación	1B, 1C
Lymington Foundation	1A, 1C or 2B
Rio de Janeiro Zoo	4A, 1C
Sao Paulo Zoo	3A

In general terms (for scientific details see Miyaki et al. in prep.) this indicates that the macaws sampled (17.21) have a total of 357 pairing combinations, which show 115 (32.2%) in the low relatedness categories (A, B), 131 (36.7%) in the medium category (C) and 111 (31.1%) in the high categories (D, E). Currently all 17 males with known similarity indices are paired with females with relative proportions of genetic relatedness as

shown in Table 2. The same table indicates the changes in these proportions were re-pairing of macaws to take place within each institution, i.e. before an interchange of macaws between institutions. The pairings according to institution are shown in Table 3.

Given that in the first instance it would be easier to manage populations on a regional basis, it would make sense to exchange birds for further re-pairings between the holding institutions in Brazil. From the 11.15 captive Lear's Macaws currently in that country, it would be possible to form 11 low-relatedness (A) pairings. Any intention to re-pair these birds must take into account the compatibility of the individuals within pairs, revealed primarily by their behaviour, and the following precautions should be taken:

1. Birds not in successfully reproducing pairs, should be given the possibility of freely choosing a mate from a choice of birds housed in a group/flock. However, before breaking up non-reproducing pairs, the age of the birds should be taken into consideration.
2. Genetically acceptable pairings should be the aim, but before breaking up existing pairs, their breeding history and age should be taken into consideration.

Acknowledgements

Our thanks to Prof. Cristina Miyaki for making available to us the rankings of relatedness of possible pairings.

References

- BirdLife International. 2000. *Threatened Birds of the World*. Lynx Edicions and BirdLife International, Barcelona and Cambridge, UK.
- BirdLife International. 2006. Species factsheet: *Anodorhynchus leari*. Downloaded from <http://www.birdlife.org> on 7/12/2006.
- IBAMA. 2006. Management Plan for the Lear's Macaw (*Anodorhynchus leari*). Endangered Species Series 4. Brazilian Institute of Environment and Renewable Natural Resources, Fauna Species Protection Coordination, Brasilia.
- Reinschmidt, M. 2006. *Lear's Macaw (Anodorhynchus leari) International Studbook, Annual Report and Recommendations for 2006*. Loro Parque Fundación, Puerto de la Cruz, Tenerife.

Prof. David Waugh is Director of the Loro Parque Fundación and Matthias Reinschmidt is Curator at Loro Parque.

BOOK REVIEW

WATERFOWL ECOLOGY AND MANAGEMENT

The first edition of *Waterfowl Ecology and Management* was published in 1994. It was a mammoth compendium with more than 1,600 citations and 12 chapters, covering every aspect of waterfowl ecology and management, principally in North America. Additional research and knowledge has now resulted in the original edition being revised and greatly expanded. The second edition cites more than 2,600 works and is much more international in scope.

Its 12 chapters cover the following headings: Introduction and historical overview, Waterfowl classification, Courtship behaviour, mating systems and pair-bond formation, Reproduction ecology, Feeding ecology, Nesting, brood rearing and molting, Winter, Mortality and harvest management, Major waterfowl habitats, Wetlands and wetland management, Waterfowl policy and administration, Conclusion.

The book has several 'Infoboxes' with information about individuals, species and even research facilities, all of which have played a part in enriching waterfowl science. The individuals covered include Sir Peter Scott, Jean Delacour and Janet Kear. The 'Infoboxes' describe the tremendous contributions made by these aviculturists and these sections alone make the book a worthwhile acquisition.

Each section is detailed and provides much food for thought. The authors are open and admit that their views may not be the last word on topics such as classification, noting that "...waterfowl taxonomy is a dynamic topic, which constantly seeks to discover true relatedness, and hence new information necessarily obliges updated classification..."

This book is not an avicultural treatise. There is, however, a considerable amount of information likely to be helpful to aviculturists. There is, for example, a description of the epizootology of botulism. I know of no other book that so succinctly describes the cycle: toxin production, maggot ingestion and die-off.

Photographs, charts and drawings adorn the pages. Although most would expect colour images, I found the black and white ones most attractive and in many cases, such as the old photographs of hunters, they place them in perspective.

Waterfowl Ecology and Management, Second Edition, by G. A. Baldassarre and E. G. Bolen (ISBN 1-57524-260-5) is published by the Krieger Publishing Company, Malabar, Florida, USA.

Derian A.L. Silva Moraton

NEWS & VIEWS

EIGHTY-SEVEN YEARS OLD

Our distinguished member Derek Goodwin was 87 years old on February 26th 2007. Derek is not in the best of health, but is determined to remain active and independent. He joined the Avicultural Society in 1945, and appears to have been a member for longer than anyone else among our present membership, followed by Prof. J. R. (Bob) Hodges who joined the society in 1947.

* * *

CHESTER'S MASCARENES PROGRAMME

Chester Zoo continues to support several projects involved with the conservation of endemic plants, birds and mammals on Mauritius and Rodrigues and has recently added to its list, support for work on the predator-free Ile aux Aigrettes - a small island off the coast of Mauritius.

Ninety Mauritius Fodies *Foudia rubra* have been introduced onto the island and there are plans to add 25 Mauritius Olive White-eyes *Zosterops chloronothos*. The zoo supports the *in situ* conservation programmes for both of these Critically Endangered species, and the bird rearing experience of its staff working on these projects has been integral to their success.

* * *

BRUCE'S GREEN PIGEON BRED IN THE UK

In the weekly magazine *Cage & Aviary Birds* January 25th, pp.14-15, 2007, published here in the UK, Bill Daniel described breeding Bruce's Green Pigeon *Treron waalia*. The breeding pair (two of four birds bought in late 2004) built a substantial nest of twigs on a 15cm (6in) diameter circular nest tray and the first egg was laid on January 13th 2006. The single egg hatched successfully and the fledgling left the nest on February 23rd. During 2006, three chicks were reared, but several eggs and other chicks were lost because young fledglings tended to try to roost on any new nest and would beg the incubating bird for food and, in doing so, would knock the eggs or small chicks off the nest.

Bruce's Green Pigeon was named after The Reverend Henry James Bruce (1835-1909), an American missionary who worked in India from 1862 until his death. Why, therefore, this species found in semi-arid country from Senegal to Somalia, the island of Socotra and south-west Arabia was named after him, is not immediately obvious.

PUBLISHER WITH PASSION FOR ORNITHOLOGY

Christopher Helm, a publisher whose passion for ornithology led to a series of authoritative and bestselling bird guides, many of which are frequently used by aviculturalists, died on January 20th 2007, aged 69. His publishing career, which began with Penguin and then Macmillan, began to blossom after he teamed up with David Croom to start Croom Helm in 1972. Croom Helm published many bird books including two, one an identification guide to seabirds and another an identification guide to shorebirds, each of which sold not far short of 100,000 copies worldwide. After Croom Helm was taken over in 1986, he went solo and Christopher Helm (Publishers) Ltd flourished for four years until it was sold to A&C Black. Two years later, he started again, this time with Pica Press, now also owned by A&C Black. Within 48 hours of Christopher Helm's death, reviewers were receiving copies of *Birds of Northern South America*, the latest publication to carry his name. Our Vice President Robin Restall has been heavily involved with the last title.

* * *

BOUGHT FROM A DEALER IN JOHANNESBURG

In November 2003, Isivuba Birds in South Africa, bought two males and one female, long-tailed, White-crested Hornbills *Berenicornis (Tropicranus) albocristatus*. In the *Field Guide to the Birds of East Africa*, p.246, Stevenson & Fanshawe describe this mainly West African species, which just reaches extreme western Uganda, as looking like "a giant woodhoopoe" *Phoeniculus* spp.

In *Cage & Aviary Birds* March 22nd, p.21, 2007, Graeme Hoffman described how the female first entered the nest box in August 2004. There were two eggs, one was infertile and the other hatched but the chick was found dead on the floor. The following year, the female had fully sealed herself into the nest box by September 2nd and again laid two white eggs. On December 11th the female was heard tapping at the nest hole and having enlarged the opening, emerged two days later, followed two hours afterwards, by a single chick. The female had been in the nest box for 102 days. The parents, especially the male, continued to feed the young hornbill, thought to be a male, until the end of February 2006.

I had previously heard of Graeme Hoffman from our recently elected Vice President, Fred Barnicoat, who also lives in South Africa. Fred wrote of Graeme's "new softbill collection" of "extraordinary quality" and said that he (Fred) will try to get down to writing an article about it for the *Avicultural Magazine*.

BIRDS IN AN AUSTRIAN ZOO

In *International Zoo News* Vol.54, No.1, pp.32-36 (2007), Gisela Bihler wrote about the collection of birds and mammals at Raritätenszoo Ebbs in Austria, established by Erich Eberl and his wife Amalie, that first opened to the public in 1990.

Hornbills kept there between 1997-2006 and the numbers reared (in brackets), included White-crowned *Berenicornis comatus*, Wrinkled *Aceros (Rhyticeros) corrugatus* (1), Red-knobbed *Rhyticeros (Aceros) cassidix* (7), Papuan Wreathed or Blyth's *P. (Aceros) plicatus*, Malayan Rhinoceros Hornbill *Buceros r. rhinoceros*, Javan Rhinoceros Hornbill *B. r. silvestris*, Black-casqued *Ceratogymna atrata*, Yellow-casqued *C. elata*, Silvery-cheeked *Bycanistes (Ceratogymna) brevis* and Trumpeter Hornbill *B. (Ceratogymna) bucinator* (8). Eight Tarricic *Penelopides* sp. were also bred, but as they proved to be hybrids, the breedings were halted.

After years of not showing any nest building activity, the colony of Greater Flamingos *Phoenicopterus ruber roseus* raised six chicks in 2002, and in subsequent years has produced five or six chicks each season. Other species bred there have included the Common or Grey-winged Trumpeter *Psophia crepitans*, Blue Crowned Pigeon *Goura cristata* and Victoria Crowned Pigeon *G. victoria*.

* * *

RARE FINCH CONSERVATION GROUP

A group of aviculturists in South Africa, which includes Fred Barnicoat, Neville Brickell and Eelco Meyjes, along with Australian Russell Kingston, has got together to found the Rare Finch Conservation Group (RFCG).

It is gathering information on wild and captive species, along with photos of these birds, and the information and photos gathered so far can be found on its website - www.rarefinch.co.za - which is still in its infancy. In addition, the RFCG has launched a programme in Uganda, along with the Wildlife Conservation Society, to undertake research on the little-known crimsonwings *Cryptospiza* spp., of which Shelley's Crimsonwing *C. shelleyi*, the species chosen as the group's emblem, is of most concern. It is also running a captive breeding programme for the Red-faced Crimsonwing *C. reichenovii*. Other species kept by RFCG members include the Fawn-breasted Waxbill *Estrilda paludicola marwitzi*, Peters's Twin-spot *Hypargos niveoguttatus*, Green Twin-spot *Mandingoa nitidula chubbi* and Western Bluebill *Spermophaga haematina*.

If you would like to contribute information or photos, you should contact Simon Espley by e-mail: simon@africageographic.com or Eelco Meyjes at: editor@avitalk.co.za

BRED REGULARLY AT CHESTER ZOO

In 2006 Chester Zoo bred five West African Crowned Cranes *Balearica p. pavonina*. The two clutches of eggs were taken from the birds and artificially incubated in the zoo's incubation and rearing unit. Some of the chicks were returned to their parents and others were reared by domestic hens. Chester is one of the few European zoos regularly breeding this species.

* * *

TWENTY-TWO QUETZALS RAISED

The Golden-headed Quetzal *Pharomachrus auriceps* was first bred at Houston Zoo, Texas, in 1985, since when 22 offspring, both parent- and hand-reared, have been raised successfully to adulthood.

* * *

UP FOR THE CUP

In the *Avicultural Magazine* Vol.97, No.1, pp.9-13 (1991), W. D. Cummings wrote about the 1990-1991 breeding season at Mitchell Park, Durban, South Africa, the highlight of which had been the rearing of 22 Hartlaub's Ducks *Pteronetta hartlaubii*, all from one pair. The Crested Guineafowl *Guttera pucherani* chicks had proved easy to rear and they were pleased to have reared Cape Parrots *Poicephalus robustus* for the first time, after years of trying. Other species bred had included Blue or Stanley Crane *Anthropoides paradisea*, a wide variety of waterfowl and pheasants, plus Sonnerat's Junglefowl *Gallus sonneratii*, Black-winged Starling *Sturnus melanopterus*, Crested Myna *Acridotheres cristatellus* and Jungle Myna *A. fuscus*, Occipital Blue Pie *Urocissa melanocephala*, Pied Imperial Pigeon *Ducula bicolor* and Black Crake *Amaurornis flavirostris*.

Little or nothing had been heard of this collection for a number of years, until recently when concern was expressed about the derelict condition of some of the enclosures. Now, Thembinkosi Ngcobo, the Municipality's Head of Parks, Recreation and Cemeteries, has announced that his department is considering a proposal to allocate R30 million (approx. £2 million or US\$4 million) towards upgrading the park. This, it is suggested, could turn Mitchell Park into a world class zoo and a major attraction for residents and visitors ahead of the 2010 World Cup soccer tournament, which will be held in South Africa.

SPECIAL INTEREST GROUPS

It is vital now, more than ever before, that we establish self-sustaining captive-breeding populations of as many different species as possible. With this in mind, the Avicultural Society is supporting a number of Special Interest Groups. These put keepers and breeders in touch with each other to exchange information and birds, with the ultimate aim of forming the maximum number of unrelated breeding pairs. Although all of the contacts listed below are here in the UK, the Special Interest Groups are by no means confined solely to UK aviculturists, but also welcome contact with aviculturists throughout Europe, North America and elsewhere.

Contacts

Laughingthrushes *Garrulax* spp., Chestnut-backed Thrush *Zoothera dohertyi*, Fairy Bluebird *Irena puella*, Rufous-bellied Niltava *Niltava sundara*; Andrew Owen/Ian Hadgkiss - Tel:01296 653286/E-mail: Andrew.Owen@nationaltrust.org.uk

Blue-crowned Laughingthrush *Garrulax courtoisi*; Laura Gardner - E-mail:LauraGardner@leeds-castle.co.uk

Liocichlas *Liocichla* spp.; Nigel Hewston - Tel:01453 826944/E-mail:nigelhewston@supanet.com

Barbets Capitonidae; Mike Curzon MBE - Tel:01373 824077/E-mail: mcurzonmbe@hotmail.co.uk

Fruit Doves, Ground Doves, Bleeding Hearts Columbidae; Rosemary Wiseman - E-mail:ro.wiseman@virgin.net

Shamas and Magpie Robins *Copsychus* spp.; Barry Woodley - E-mail:barrywoodley@tiscali.co.uk

White-rumped Shama *Copsychus malabaricus*, Large Niltava *Niltava grandis*, Spotted Morning Warbler *Cichladusa guttata*, Mockingbirds *Mimus* spp.; Bob Jewiss - Tel:07910 353718/E-mail:bobby@blueyonder.co.uk

Corvids Corvidae, Hornbills Bucerotidae, African Starlings Sturnidae; Geoff Masson - E-mail:geoffmasson@paultons.co.uk

Asian Starlings and Mynahs Sturnidae; Rob Monk - Tel:01905 351649/E-mail:rob@pickersleigh.co.uk

Toucans Ramphastidae; John Ellis - Tel:0207 4496436/E-mail: john.ellis@zsl.org

Contacts are still required for the following: Yuhinas *Yuhina* spp., White-eyes *Zosterops* spp., Bulbuls Pycnonotidae, Robin-Chats *Cossypha* spp., Thrushes Turdidae, Pekin Robin *Leiothrix lutea*, Silver-eared Mesia *L. argentauris*, Sibilas *Heterophasia* spp., Rollers *Coracias* spp., Hoopoe *Upupa epops*, Mousebirds Coliidae, Shrikes Laniidae, Sunbirds Nectariniidae, Grosbeaks Fringillidae, Buntings Emberizidae, Tanagers and Honeycreepers Thraupidae, Cardinals and Grosbeaks Cardinalidae.



CONTENTS

The Avicultural Society	1
Breeding the Black-throated Barbet <i>Tricholaema melanocephala</i> by Martin Davies	2
Cirl Bunting <i>Emberiza cirlus</i> Reintroduction Project by Jo Gregson	4
The bird collection at Waddesdon Manor by Andrew Owen	8
The Corncrake Species Recovery Programme by Jamie Graham	13
Keeping and breeding the Greater Bird of Paradise <i>Paradisaea apoda</i> at Al Wabra Wildlife Preservation, Qatar and Walsrode Birdpark, Germany by Simon Bruslund Jensen	22
On a visit to Chestnut Lodge by Fred Barnicoat	33
Two species of Cotingidae bred in Germany	38
News on the captive management of Lear's Macaw <i>Anodorhynchus leari</i> by David Waugh and Matthias Reinschmidt	40
Book Review Waterfowl Ecology and Management	44
News & Views	45