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ADDRESS OF THE EDITOR

Malcolm Ellis, Hon. Editor, The Avicultural Magazine, The Chalet, Hay Farm, St. Breock, Wadebridge, Cornwall PL27 7LL, England.

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WORLD OF BIRDS REVIEW 2001/2002

by Isabel Wentzel

The 2001/2002 breeding season at the World of Birds Wildlife Sanctuary and Monkey Park, Cape Town, South Africa, proved to be an exciting one, with young being produced by numerous species which had never bred here before.

We bred for the first time two Mountain Caracaras *Phalacrocorax megalopterus*, from the first clutch of eggs from a relatively young pair, three Cape Eagle Owls *Bubo capensis*, eight Giant Wood-Rails *Aramides ypecaha*, four European White Storks *Ciconia ciconia*, one Nicobar Pigeon *Caloenas nicobarica* and one Dumonti's Myna *Mino dumontii*.

Other species bred included three Great Horned Owls *B. virginianus*, three Bengal Eagle Owls *B. bubo bengalensis*, three Spotted Eagle Owls *B. africanus*, two African Barn Owls *Tyto alba*, one African Goshawk *Accipiter tachiro*, one Rock Kestrel *Falco tinnunculus*, four Jackal Buzzards *Buteo rufofuscus* and two Yellow-billed Kites *Milvus migrans*. Pale Chanting Goshawks *Melierax canorus* and Booted Eagles *Hieraaetus pennatus* had eggs but these were infertile, as were those of the Turkey Vultures *Cathartes aura*. The egg laid by the adult female Black or Verreaux's Eagle *Aquila verreauxii* was also infertile, probably due to the fact that she is paired with a new younger male, the previous male having been imprinted.

Two female Marabou *Leptoptilos crumeniferus* which have laid eggs in previous years have been paired with young males acquired from Johannesburg Zoo. Maybe next breeding season we can look forward to fertile eggs. In the 75m (approx. 250ft) long enclosure housing storks, herons, spoonbills, ibises and egrets, a pair of Saddle-billed Storks *Ephippiorhynchus senegalensis* built a huge nest, but failed to produce eggs. We are looking forward to the pair's next attempt. Eleven Spoonbills *Platalea alba*, four Yellow-billed Egrets *Egretta intermedia*, 20 Little Egrets *E. garzetta* and 25 Cattle Egrets *Bubulcus ibis* were produced in The Heronry. We hand-reared three Southern Bald Ibis *Geronticus calvus*, because their parents failed to rear them and also raised 30 Scarlet Ibis *Eudocimus ruber*.

Three Blue Cranes *Anthropoides paradiseus* were raised successfully, two of which were hand-reared. The park had its first Double-wattled Cassowary *Casuarius casuarius* eggs, laid by a new female which was obtained recently for our males. The smaller of the two males took an immediate liking to the female, but seemed to be intimidated by her size and the eggs were infertile. We have obtained a second young female, bringing our cassowary population to four. The Greater Rheas *Rhea americana* produced fertile eggs, but the chicks failed to survive. All the eggs laid by the Emus *Dromaius novaehollandiae* were infertile. Two pairs of Ostriches *Struthio camelus* reared seven chicks.

Thirty Carolina Wood Ducks *Aix sponsa*, 40 Mandarin Ducks *A. galericulata*, 15 Yellow-billed Ducks *Anas undulata*, five Fulvous Whistling Ducks *Dendrocygna bicolor*, one Hawaiian Goose *Branta sandvicensis*, one Ruddy Shelduck *Tadorna ferruginea* and seven Mute Swans *Cygnus olor* were raised in the waterfowl complex.

Six African Penguins *Spheniscus demersus* and one Brown Pelican *Pelecanus occidentalis* were reared successfully by their parents.

Three Lesser Sulphur-crested Cockatoos *Cacatua sulphurea* and three Goffin's Cockatoos *G. goffini* were reared, as well as seven Black-headed Conures *Nandayus nenday*, six Green-cheeked Conures *Pyrrhura molinae*, two Pale-headed Rosellas *Platyercus adscitus*, 10 Quaker or Monk Parrakeets *Myiopsitta monachus*, four Indian Ring-necked Parrakeets *Psittacula krameri manillensis*, seven Lilian's or Nyasa Lovebirds *Agapornis lilianae* and five Rosy- or Peach-faced Lovebirds *A. roseicollis*.

Two pairs of Yellow-billed Hornbills *Tockus leucomelas* produced eggs, one clutch was infertile and the second pair hatched the eggs but failed to rear the chicks. Four Von der Decken's Hornbill *T. deckeni* were successfully hand-reared. The arrival of a pair of Black-and-white-casqued Hornbills *Bycanistes subcylindricus* brought our hornbill collection to eight species.

As our Nicobar Pigeons were new to the collection, a highlight of the breeding season was to succeed in hatching and rearing one, after the previous clutch had been destroyed during a storm. Other pigeons and doves bred included eight Speckled or Rock Pigeons *Columba guinea*, five Crested Pigeons *Ocyphaps lophotes*, eight Laughing Doves *Streptopelia senegalensis*, four Red-eyed Doves *S. semitorquata*, five Cape Turtle Doves *S. capensis*, one Pygmy Dove *Columbina minuta*, two Green-winged Doves *Chalcophaps indica*, four Lemon or Cinnamon Doves *Aplopelia larvata* and one Diamond Dove *Geopelia cuneata*.

Twelve Masked Plovers *Vanellus miles* were hatched and reared, as well as six Water Dikkops *Burhinus vermiculatus* and two Black-winged Stilts *Himantopus himantopus*. Two Silver Lophura *Lophura nycthemera*, one Ring-necked *Phasianus colchicus*, two Golden *Chrysolophus pictus* and two White-crested

Kalji Pheasant *L. leucomelanos* chicks fledged, as did five Helmeted Guineafowl *Numida meleagris*, 12 Indian Peafowl *Pavo cristatus* and 18 Chinese Painted Quail *Coturnix chinensis*.

Five Red Bishops *Euplectes orix*, 15 Zebra Finches *Taeniopygia guttata*, six Java Sparrows *Padda oryzivora*, three Olive Thrushes *Turdus olivaceus*, four Asian Glossy Starlings *Aplonis panayensis*, four Red-winged Starlings *Onychognathus morio* and one White-tailed Jay *Cyanocorax mystacalis* were reared successfully.

Numerous new enclosures were built during the past year, including many aviaries urgently needed for the growing parrot population. Most of the parrots used to be pets and there is increasing pressure to accommodate all of these. Five more aviaries were completed to house breeding pairs of birds of prey. A suitable enclosure is being built to house a tiny Eurasian Scops Owl *Otus scops* brought to the sanctuary after landing on a container ship near the Canary Islands. It will also house the mate we hope to find for it.

Mammals bred included five Pygmy Marmosets *Cebuella pygmaea*, 16 Common Marmosets *Callithrix jacchus*, three Black Tufted-eared Marmosets *Penicillata kuhli*, four Cotton-top Tamarins *Saguinus oedipus*, five Common Squirrel Monkeys *Saimiri sciureus* and two Dama Wallabies *Macropus eugenii*. A number of smaller enclosures have been added to house pairs of marmosets and tamarins, as well as enclosures for Suricates *Suricata suricatta*, Ground Squirrels *Xerus inaurus*, Porcupines *Hystrix africae australis* and Dama Wallabies. A pair of Mongoose Lemurs *Lemur mongoz* was moved to a new, larger enclosure and a second baboon enclosure was extended to separate the young Chacma *Papio ursinus* and Yellow Baboons *P. cynocephalus*.

Staff at the sanctuary are looking forward to the next breeding season and lots more happenings in the near future.

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SOME FAMOUS AVICULTURISTS I HAVE KNOWN

by R. C. J. Sawyer

At the Centenary Celebrations held in September 1994 at Bristol Zoo Gardens, I spoke about some of the famous aviculturists who were around when I joined the Avicultural Society in 1949. A written account of my talk was published in the *Avicultural Magazine* Vol.100, No.4, pp.149-154, and the following notes amount to a continuation of that. Most of the following aviculturists, the majority of whom sadly are no longer with us, were members of the society, many for a great number of years, usually until the time of their death.

I well remember Cecil Webb, who was Curator of Mammals and Birds at London Zoo, before leaving in 1951 and the following year becoming Superintendent of Dublin Zoo. He was an outstanding man who had collected in many countries, but especially in Africa. He always brought back his birds, softbills mainly such as robin-chats *Cossypha* spp., in excellent condition. In 1948, he brought back to London Zoo the first Grey-necked Picathartes *Picathartes oreas* ever kept in captivity. The expedition to what was then the British Cameroons was the last of over 20 expeditions he made and which were described by him in *A Wanderer in the Wind, The Odyssey of an Animal Collector* (Hutchinson, 1953), in the foreword of which he thanked the Editor of the *Avicultural Magazine* for permission to draw freely from articles about these expeditions which he had written for the magazine. By the time I met him he had finished collecting and later moved to Kenya, where he died in 1964. In Memoriam - Cecil Stanley Webb by Geoffrey Vevers, illustrated by a photo of Cecil Webb, was published in the *Avicultural Magazine* Vol.70, No.5, pp.173-176.

Cecil Webb was followed as Curator of Birds by John Yealland and, during his time as curator, it seemed that each issue of the magazine included his London Zoo Notes, with the latest news about the zoo's bird collection. In those days, when people mentioned "The Zoo", they meant the London Zoo. John grew up with birds, his father having been in charge of the collection of the Marquess of Tavistock (Hon. Editor of the magazine 1924 and 1925 and later 12th Duke of Bedford), which was housed in aviaries in the garden of the Yealland family home at Binstead on the Isle of Wight. He went to work at London Zoo when he was 17, but when his father died in 1922, John left the zoo to take charge of the Duke of Bedford's collection which was then at Warblington, Hants., and later was moved to Rye in Sussex and then Haywards Heath.

At the outbreak of the Second World War John was in Belgium, just outside Brussels, looking after the private collection of Dr J. M. Derscheid.

John spent 1946 at Slimbridge helping Peter Scott start the Wildfowl Trust. The following year he teamed up with Gerald Durrell and in December 1947 they sailed from Liverpool on an animal collecting expedition to the Cameroons, which was later the subject of Durrell's best selling book *The Overloaded Ark* (Faber & Faber, 1953). John travelled to Hawaii in 1950 and brought back the first Hawaiian Geese or Nene *Branta sandvicensis*, which were the founders of the Wildfowl Trust's breeding programme which saved this species from extinction - surely aviculture's greatest success story. In 1951 John returned to London Zoo, this time as Curator of Birds. He was a great friend and we used to meet at the zoo at least once a week. He was extremely popular and well liked and respected.

John retired from the zoo in 1969. He returned to the Isle of Wight and in 1974 succeeded Phyllis Barclay-Smith as Hon. Editor of the *Avicultural Magazine*, which he edited until the end of 1978. John died in January 1983. Peter Olney succeeded John as Curator of Birds at London Zoo.

It was a great privilege to have met Wilfred Frost, who in my early days was already old. His speciality was birds from the Far East. Every year he used to bring back a collection usually from New Guinea or other islands out that way. He brought back many birds of paradise, lories, parrakeets and Palm Cockatoos *Probosciger aterrimus*. He continued to bring back shipments even when he was in his 80's. By then his eyesight was failing and in order to check that a bird had enough water he would put a finger into the pot. I bought a male Greater Bird of Paradise *Paradisaea apoda* from him and he also had some King Birds of Paradise *Cicinnurus regius* and Wilson's *Diphylloides respublica*. He always brought back his collections by boat, looking after them himself during the voyage, and usually landed them in good condition. Towards the end of 1957, he sailed for Borneo on what would have been his 54th expedition had he not died shortly afterwards. He was 82.

Frost was one of the last collectors to bring back his birds by boat. In the early 1950s birds were starting to be sent by air. A box of hummingbirds from a dealer named Randau in Recife, Brazil, cost me £48 (approx. US\$70) for a dozen (12) birds, which included the cost of the air freight. At that time, Heathrow Airport had only some former army huts in which the paperwork was processed and from which the birds were collected.

I also received some lovely hummingbirds in the 1950s from Charles Cordier, the famous collector who had worked for Jean Delacour. Cordier spent a great many years collecting birds in Central and South America. In 1942 he had sent a massive collection to the Bronx Zoo, New York, when Jean was the Director. It included 18 Resplendent Quetzals *Pharomachrus mocinno*, tanagers, manakins, Bare-necked Umbrellabirds *Cephalopterus glabricollis* and 11 different species of hummingbirds. Jean wrote in 1943

about the collection. The hummingbirds Cordier sent me arrived beautifully packed and in good condition. Such collectors have long gone and nowadays many birds appear to have been trapped and sent over by air almost immediately. Hummingbirds and tanagers were probably amongst the first birds sent by air to Europe.

Sydney Porter was a great friend, who due to his asthma used to go abroad each winter to enjoy a warmer climate and visited fellow aviculturists and collected a few birds. Singapore was a favourite destination and he also visited East and South Africa, Australia, New Zealand and California. Sydney maintained a fine collection of birds in his aviaries at Derby and at various times owned eight different species of pitta. Other birds he kept included Azure-winged Magpies *Cyanopica cyanus* and Keas *Nestor notabilis*, a species for which he received the society's medal for the first breeding in 1946. He was an important contributor who wrote numerous articles for the magazine, was very generous to zoos and to Nottingham University to which he left his large collection of monographs when he died in January 1958, at the early age of 58.

David Roberts sent some lovely birds from Kenya. I had some of the earliest birds sent by him, which he handled in a very professional way, packing them in magnificent travelling boxes, often with foam padded roofs. The first collections included Bristle-crowned *Onychognathus salvadorii* and Magpie Starlings *Speculipastor bicolor*, d'Arnaud's *Trachyphonus darnaudii* and Yellow-billed Barbets *Trachyphonus* or *Trachylaemus purpuratus*, Black-billed Weavers *Ploceus melanogaster*, Red-headed Bluebills *Spermophaga ruficapilla*, Blacksmith *Vanellus armatus* and Spur-winged Plovers *V. spinosus* and Crowned Lapwings *V. coronatus*. These went to London Zoo and were distributed from there. He sent over many waterbirds, including African Jaçanas *Actophilornis africanus* and flamingos *Phoenicopterus & Phoeniconaias* spp.

David died at a very early age, leaving a widow and six young children. Betty, his widow, continued exporting birds until the Kenya Government ban. She continues to live at Lake Baringo, where she has a campsite and tourist accommodation which are very popular, especially with birdwatchers.

Birds such as the Yellow-billed Barbets, Black-billed Weavers and Red-headed Bluebills sent over by David Roberts Wildlife, were collected by Tim and Jane Barnley, who farmed on the Cherangani Hills in western Kenya, and who for several years supplied birds to David Roberts, before later trading on their own account as T. & J. Barnley. They sent over lovely collections which also included Grey-crowned Negro Finches *Nigrita canicapilla*, Oriole Finches *Linurgus olivaceus*, several species of sunbird, wonderful robin chats including the Blue-shouldered *Cossypha cyanocampter*, along with Splendid Starlings *Lamprotornis splendidus* and Ross's *Musophaga rossae* and White-

crested Turacos *Tauraco leucolophus*, which they had hand-reared from nestlings. The Little Stints *Calidris minuta* they sent me were greatly admired. I showed a pair at the National Exhibition of Cage & Aviary Birds in 1975 and 1977 at Alexandra Palace and both times the pair was awarded the special for Best Foreign Bird Artistically and Suitably Staged for the C. T. Maxwell Memorial Shield.

Tim Barnley died at a relatively early age, following a back operation which went badly wrong. His widow, Jane, and youngest daughter Julia, continue to live in the farmhouse. They too have a campsite and accommodation, and cater mainly for birdwatchers wishing to see the rich variety of birds which inhabit that part of Kenya, close to Mt Elgon and the border with Uganda.

Lena Scamell and her husband Kenneth were great supporters of the society. I knew them from my early days when they lived in Dulwich before moving to Newdigate in Surrey, where Lena had incredible success breeding softbills. She was awarded 15 first breeding medals by the Avicultural Society. Her most outstanding successes were breeding for the first time the Malachite Sunbird *Nectarinia famosa* (1964) and Sparkling Violetear *Colibri coruscans* (1967). Other notable first breedings included the Daurian Redstart *Phoenicurus aureus*, Common Rubythroat *Luscinia calliope* and Himalayan Rubythroat *L. pectoralis*. Lena also bred the Festive or Red-necked Tanager *Tangara cyanocephala* though this was not the first breeding.

The Scamell's garden is best described as having been in a wood with fairly small aviaries designed with breeding in mind. Lena was quite a large person and when she walked through the long and narrow aviaries, the birds had to fly over her shoulders to get past her; but what success she achieved in them, she even got a Scarlet Cock-of-the-Rock *Rupicola peruviana* chick to 23 days before it died. To have bred this species would have been her crowning glory. It was to her that Dave Coles dedicated his *First Breeding Records of Birds Reared to Independence Under Controlled Conditions in the United Kingdom*.

She was also a very successful exhibitor and on several occasions took the Best Foreign Bird award at the National Exhibition of Cage & Aviary Birds at both Olympia and Alexandra Palace. In 1963 her pair of Lesser Niltavas *Niltava macgrigoriae* went on to become Supreme Winner of the Haddon Silver Challenge Trophy which I judged. She proved that it is possible to both breed and show birds successfully.

In 1970, Lena and Kenneth Scamell moved to Cornwall, taking only part of the bird collection with them. By then they were not in the best of health and Lena was not so successful in Cornwall, though while there she did achieve the first breeding of the beautiful Silverbird *Empidonis semipartitus*, a species of flycatcher from eastern Africa, that had been sent

over by Tim and Jane Barnley. It is a species I have also had here at Cobham. Kenneth Scamell, who worked for the Birds Eye company and had been awarded the OBE (Order of the British Empire), gave great support to his wife.

Claude Payne is a great friend of mine who lives in Warwickshire. He has lovely aviaries in his garden with lots of parrakeets, including the Derbyan *Psittacula derbyana*, and also has cranes. He was awarded the society's medal for the first breeding of the Knysna Turaco *T. corythaix*, Spotted Towhee *Pipilo erythrophthalmus maculatus* and Evening Grosbeak *Coccothraustes vespertinus*. He used to keep British birds and was the legal consultant to the NCA (National Council of Aviculture).

Reg Partridge had an enormous collection even before the Second World War. He owned a farm near Evesham, Worcestershire and was also a dealer, who sent collectors to Australia. Tom Goodwin brought back bowerbirds, but when the war broke out, it became difficult to dispose of birds. People brought their birds to Mr Ezra and wanted to give them to him in the belief that he would be able to feed them; however, he was in the same position. After the war Reg built up perhaps the best collection of Australian parrakeets that there has been in this country. A successful breeder, he also kept various other parrots, including lutino and blue Ring-necks *P. krameri* and helped establish albino Cockatiels *Leptolophus hollandicus* in this country. Although he never kept many softbills, he succeeded in being first in the UK to breed the Magpie Starling *Speculipastor bicolor*, Golden-crested Mynah *Ampeliceps coronatus* and Scrub Jay *Aphelocoma coerulescens*. Reg was a gentleman dealer and money was not an essential part of his dealings. He enjoyed handling and dealing with birds - that was his life.

Donald Risdon was a staunch supporter of the society who over a 50 year period contributed numerous articles to the magazine. I met him first when he was General Manager of Dudley Zoo, before he and his wife Betty founded the Tropical Bird Gardens at Rode, which they opened in 1962. The Tropical Bird Gardens were famous for the free flying macaws and there were five UK first breedings there, including the first breeding of the Scarlet Ibis *Eudocimus ruber*. Interested originally in pigeons, he kept these right up until his death in 1994. He also greatly appreciated red factor canaries; he greatly appreciated birds with red in their plumage, but hated some of the other new colour canaries that have appeared. He never went in for small exotic birds that need heat or a tropical house, which are he maintained very expensive to run and the general public do not appreciate. Donald Risdon was awarded the President's Medal in 1993, and is only the sixth person to have been awarded this medal.

As well as birds, he also loved fairground music. Prior to being appointed General Manager of Dudley Zoo in 1949, he was manager of Keston Foreign

Bird Farm. It was the first of its kind and probably the best. There were in the past numerous reports in the magazine about Keston but suffice it to say that the many small aviaries were on a terraced, southern slope. It bred commercially Australian finches and parrakeets, and also bred other birds and received several first breeding awards, including for breeding the Blue-fronted Amazon *Amazona aestiva*, which bred there for several years. Other species bred there for the first time in the UK, include the Fairy Bluebird *Irena puella*, White-capped Redstart *P. leucocephalus* and Purple Grenadier *Uraeginthus ianthinogaster*. The Duke of Bedford was the greatest supporter of Keston Foreign Bird Farm. He left it £4,000 (approx. US\$6,000 at the present exchange rate) in his will and Boosey used Westmoreland stone to construct a water garden there in the duke's memory. Boosey was a dedicated aviculturist who also kept a private collection of choice seedeaters and softbills. He served as a Vice President of the society and was a prolific writer for the magazine.

Ken Norris lived not far from here at Purley, Surrey. He had numerous breeding successes, including the first breeding of the Rufous-bellied Niltava *N. sundara*. He also succeeded in breeding the Mountain Bluebird *Sialia currucoides*. His aviaries, in the Persian or Moorish style, although not large had quite a few softbills in each of them. Although a pigeon enthusiast mainly, as well as softbills, he also kept some cockatoos and parrakeets. He was a chairman of the British Aviculturists' Club and on occasions gave film shows. He was very keen on natural history and was a very good artist. For many years a bachelor, Ken Norris married late in life.

N. T. (Ted) Vane lived at Great Missendon, Bucks., having previously lived at Pinner, Middlesex. He built up a large collection of parrot species and was widely regarded as one of the experts on this family. He made a partial living from selling birds he bred and wrote numerous articles for the magazine. Another good artist, he was writing a book about parrots at the time of his death.

Andy Wilson was a dealer from Glasgow, who the first time I met him had two hill mynahs *Gracula* sp. on display at the Horticultural Hall. He was a character and was often called upon to judge. Toucans, motmots and birds of paradise were amongst the most spectacular birds kept by George Whitmore. When the Duke of Bedford died, he paid £25 (approx. US\$35) for his pair of Musschenbroek's Lorikeets *Neopsittacus musschenbroekii*, a rare species in this country before about 1985. George Whitmore was an exhibitor who had numerous successes on the show bench and in 1964 was awarded the society's medal for the first breeding of the Thick-billed Green Pigeon *Treron curvirostra*.

Effy Clarke and her husband George, who from time to time entertained the Duke of Bedford, had an enormous collection of parrot species. They

bred the Queen of Bavaria's Conure *Guarouba guarouba* and a delightful hybrid Barraband Parrakeet *Polytelis swainsonii* x Princess of Wales Parrakeet *P. alexandrae*. It was a beautiful bird with its orange and lots of other colours.

Newton Steele lived in Sussex and then moved near Dartmouth in south Devon. A cattle breeder, he also kept a large collection of domestic pigeons and large birds mainly such as species of parrot, turacos and the Nicobar Pigeon *Caloenas nicobarica*. He was awarded the society's medal for the first breeding of the Grey Crowned Crane *Balearica regulorum gibbericeps* and Ross's Turaco.

Viscount Chaplin was Secretary of the Zoological Society of London, and in 1935 had been Hon. Editor of our magazine. He was one of the most charming people you could meet and very enthusiastic about his birds. He was extremely keen on nectar-feeders, particularly sunbirds. He used to keep a sunbird in his room for many years and fed it smoked haddock from his breakfast. He also kept a few hummingbirds. He too was a talented artist and paintings by him of hummingbirds and sunbirds were reproduced as the frontispiece of the December 1933, January 1934 and October 1935 issues of the magazine.

By profession a veterinary surgeon, Tom Spence kept a large collection of birds at Newburgh, Fife, Scotland. I used to go and stay there. He had screamers, numerous cranes, curassows, and a collection of lorries, which at the time may have been the largest in the UK. He bred the Purple-capped *Lorius domicellus* in 1954, for which he received the society's medal, it being the first breeding of this species in the UK. He also kept numerous pigeons of which the Crested Pigeons *Ocyphaps lophotes* lived at liberty in his garden. Later he became Superintendent of the Zoological Gardens, Perth, Western Australia.

Tom Goodwin lived not far from here at Ripley, Surrey. I went there in the early 1950s and remember his lovely Jackson's *Euplectes jacksoni* and Giant Widowbirds *E. progne* and Hartlaub's Turacos *T. hartlaubi*. Mr Ezra supported him in pre-War years when he went to Australia and collected many interesting birds.

Jack Indge ('Jolly') was one of the earliest people from whom I bought birds. George Lynch took me to meet him at his bungalow at Trimstone, Thorpe, Surrey, in which he had a large birdroom in the roof space. He used to deal in birds and I bought many birds from him, he also had quite nice aviaries in the garden for his own birds about which he was very enthusiastic and, in 1962, received the society's medal for the first breeding of the Red-sided Eclectus *Eclectus roratus polychloris*. George Lynch was a wonderful all-rounder who was already going strong when I started. Involved with Hounslow CBS (Cage Bird Society), he had only a few aviaries but managed

to keep a varied selection of birds. Always interested in canaries and British birds, he also achieved the UK first breeding of the Purple Finch *Carpodacus purpureus*. When I started showing, he was showing a Satin Bowerbird *Ptilonorhynchus violaceus* that he had bought from Reg Partridge, which during the war he had kept going on mashed potatoes and sultanas. He also had a long-lived Donaldson-Smith's Turaco *T. leucotis donaldsoni*. A very well known all-round show judge, he was for many years the canary expert of *Cage Birds*, which later became the present *Cage & Aviary Birds* and was Editor of *Birds Illustrated*. He lived to be 90 years old. His son Tommy remains active and lives near Farnham.

Percy Hastings was perhaps the leading dealer supplying nectar-feeders and other softbills, and had been going strong since before the Second World War. In the 1950s he imported wonderful birds from Central and South America, including my Scarlet Cock-of-the-Rock which was Supreme Exhibit at the 1958 National Exhibition at Olympia, London. He used to telephone me to tell me what he had got in and one day told me he had some lovely "red and black flowerpeckers". Knowing that flowerpeckers do not come from South America, I was especially curious! They proved to be Rhodospingus Finches *Rhodospingus cruentus* - the first ever imported into the UK. He also imported a lot of hummingbirds from Randau in Brazil. Percy Hastings was also the proprietor of Stimulite, the only nectar mixture available in those days. When new brands started to appear in the mid-1960s there was considerable correspondence in the magazine as to how the products compared and which was the best. So far as I know, Stimulite continues to be British-owned.

Allen Silver had joined the society in 1904 and was the oldest member at the time of the 75th Anniversary, and wrote about the society's first 75 years in the *75th Anniversary Special Supplement* (Vol. 75, No.6, p.225 (1969)). Allen, who had lost a leg in the First World War, lived near Newport, South Wales, and ran a pet shop. He was a great friend of mine. Not only was he very knowledgeable about birds - he was the foreign bird expert for *Cage Birds* magazine and well known for his British birds and mules and hybrids - but was also a great horticulturist. He achieved the first breeding of the Rufous & Black Warbling Finch *Poospiza nigrorufa*.

Alfredo Marques lived at Tankery House, Bedfordshire, where the gin of the same name was first produced. At one time he had a vast collection of parrot species, including many mutations. A very kind man, he gradually drifted out of aviculture. Unlike myself, very few people seem to remain in aviculture all their lives.

George Mottershead, a great person in both the bird and zoo world, was a Vice President of the Avicultural Society from 1962 until his death in 1978, and was a great host to us during the society's numerous visits to

Chester Zoo. He began from very humble origins running a pet shop and in the 1920s was able to acquire some land to the west of Chester and with good fortune laid the foundations for Chester Zoo which opened in 1931. With money in short supply he did wonders with next to nothing and his earliest buildings would not stand comparison with the modern buildings which the zoo now boasts. The Polar Bear enclosure was made using concrete tank traps left-over after the Second World War. Chester's latest major building project, Spirit of the Jaguar, cost, with the support of Jaguar Cars, £2 million (approx. US\$3 million) and today the zoo's bird collection is probably the best in this country.

In the previous issue (Vol.108, No.2, pp 93-94), News & Views included a report about the WCS (Wildlife Conservation Society) acquiring two of the Falkland Islands, Grand Jason and Steeple Jason. These two islands were once owned by Len Hill. A builder by trade, he had as a small boy growing up in the picturesque Cotswold village of Bourton-on-the-Water, Glos., lived next door to a large house named Chadwell, which he longed to own one day and eventually acquired together with 4 acres (approx. 1.6 hectares) of land. There in 1958 he open the first real bird garden in this country and called it Birdland. He obtained birds from around the world and developed the grounds with great taste. Birdland proved a great attraction and during its first season there were 30,000 visitors. By 1966 the number of visitors had risen to more than 300,000.

In 1965 a second tropical house was opened. The two housed a variety of species including hummingbirds, tanagers, pittas, Hoopoe *Upupa epops longirostris*, a small flock of Cinnamon-chested Bee-eaters *Merops oreobates* from Kenya, and Carmine Bee-eaters *Merops* sp. Mountain Witch Dove *Geotrygon versicolor*, White-browed Robin Chat *Cossypha heuglini*, Snowy-headed Robin Chat *C. niveicapilla* and Spotted Morning Warbler (called now the Spotted Morning-Thrush) *Cichladusa guttata*, were amongst the species bred in these houses. The last three were UK first breedings, the latter a joint first breeding with Winged World.

A pair of Great Hornbills *Buceros bicornis* nested but nothing came of it. In the late 1960s and early 1970s, he had Lear's Macaws *Anodorhynchus leari* and Swift Parrakeets *Lathamus discolor*, species most people had never seen before. Len Hill also liked smaller owls, such as the Spectacled *Pulsatrix perspicillata*, and falconets. He also enjoyed having birds at liberty, there were cranes and flamingos on the lawns in front of the house, and macaws were allowed to fly free and were trained to return to their roosting barrels at dusk (colour photos of the house, the interior of the new tropical house, a hummingbird and two macaws, one looking out of a sleeping barrel, can be seen in Vol.74, No.1, between pp.24-27 (1968)). His pet African Grey *Psittacus erithacus* also flew free and other birds wandered at liberty.

In 1967 a Lecture Hall was opened by Peter Scott. A mural of a view in the neighbourhood of Bourton-on-the-Water with a flight of ducks rising over a stream, painted by Peter Scott, was unveiled by Jean Delacour. It was in the Lecture Hall that the society later held the farewell presentation for Phyllis Barclay-Smith, who edited the magazine from 1938-1973.

Len Hill, a good and generous friend to the society, will be remembered most of all for his many penguins. He had King *Aptenodytes patagonica*, Gentoo *Pygoscelis papua*, Rockhopper *Eudyptes crestatus*, Macaroni *E. chrysolophus* and Magellanic *Spheniscus magellanicus* from the Falklands, as well as other species such as the Humboldt *S. humboldti* and Black-footed or African *S. demersus*. He was fortunate in having a supply of ice cold, spring water, and housed them in glass-fronted pools, enabling visitors to see them swimming underwater. Birdland was the first collection in the UK to breed the Rockhopper Penguin.

I am going to end these notes with Reginald Greed, the father of our recently retired Hon. Secretary and Treasurer, Geoffrey Greed. In my early days, I remember going to Bristol to judge at a bird show and being asked to visit the zoo to meet Reg Greed, the Director, with the view to helping design some large display cages for birds of paradise. Those that the zoo had at the time included a Red Bird of Paradise *P. rubra* and he wanted better accommodation for them. The zoo had a tropical house and a room with some glass-fronted cages. Always a beautifully laid out zoo, with the horticulture of a terrifically high standard, it used not to have a great many birds, but in recent years the number has grown and there have been some notable breedings, including a few first breedings.

In those early days, when Bristol Zoo was the only zoo in the UK with Okapis *Okapia johnstoni*, his son Geoffrey was just starting out on his zoo career, having done his training in Germany. When his father retired, he succeeded him as Director of Bristol Zoo (called now Bristol Zoo Gardens), a post he himself retired from last year and was succeeded by Jo Gipps from London Zoo.

HAND-REARING THE BLACK-FACED IBIS AT THE COTSWOLD WILDLIFE PARK

by Jamie Graham

The Black-faced Ibis *Theristicus melanopis* lives and breeds in a wide range of habitats ranging from farmland to swamps in southern South America. Its highly adaptable nature means that nesting is not a problem; it prefers rocky outcrops but will also nest in reedbeds and in trees sometimes, making a large nest platform of dry sticks, which it lines with grass, and on which it lays two to three eggs.

The pair has been at the Cotswold Wildlife Park for two years and is housed in a large mixed exhibit that includes Black Storks *Ciconia nigra*, Scarlet Ibis *Eudocimus ruber* and Waldrapp Ibis *Geronticus eremita*. The Black Storks and the Waldrapp are the only birds to have successfully parent-reared chicks in the aviary, we have had eggs and chicks from the Scarlet and Black-faced Ibis but these have mysteriously vanished. At the start of this breeding season the decision as to whether or not to remove the Black-faced Ibis eggs was decided for us. The female started laying at the beginning of February when frosts remained rife, and rather than risk losing the eggs or chicks, the three eggs that had been laid were removed for artificial incubation.

Two were fertile and hatched on February 25th 2002, the first at 9.00am and the second at 11.00am. Both chicks were placed together, though in separate baskets, in a brooder running at 36°C (96.8°F). At 4.00pm they were given 2ml of our starting mixture consisting of 5ml of distilled water and a pinch of Avipro paediatric. Both were given 2.5ml of the same mix at 8.00pm. The next day at 8.00am they had their first solid food. This consisted of 100g cat food (fish or chicken), 40ml distilled water, a pinch of paediatric and a pinch of Neutrobal.

The ingredients were mixed in a juicer and fed to the chicks at 8.00am, 12.30pm, 4.30pm and at about 8.00pm, when they received their last feed of the day. It is most important never to feed the chicks more than 10% of their body weight. This basic mixture was devised many years ago by our Assistant Curator whilst he was working at Birdland, Bourton-on-the-Water, Glos. We have seen a few different hand-rearing diets and all seem to be far too high in protein which can cause many different growth defects, therefore we prefer to stick with the above diet.

The two chicks were fed on it for 19 days, during which time the amount given was increased gradually (see Table 1) and it was also gradually made thicker. The two were moved to a larger brooder on day 20 and the first major change in their diet took place. Thigh meat was removed from day

old chicks, no bone just meat, and they took this as well as the mix. At 24 days they had to be moved again and two days later minced chick as well as the mix was fed to them. The chicks had the head, skin and feet removed and were then blended very finely and fed to the ibis chicks using a 20ml syringe with the end cut off. Gradually more and more feather material was left on the chicks and over the next eight days taking the ibis chicks to 34 days old, the amount of mix was reduced and the amount of blended chick was increased, until they were getting only blended chicks plus a pinch of Neutrobal. At this stage the last feed was cut out and the ibis chicks were fed just three times a day. Over the next 10 days they were encouraged to pick up food for themselves. Ibis chicks are very messy at the best of times and during this stage things got a lot messier, with food being flicked everywhere. I wanted to leave food with them overnight, which meant cutting up the chicks by hand, which in turn meant that the ibis chicks got used to eating slightly larger pieces of food and, due to the fact that I removed the yolk sac, the chicks were clean come the next morning.

Table 1. Development of chick 1 during its first 50 days.

Days old	Weight/ Feed 1	Weight/ Feed 2	Weight/ Feed 3	Weight/ Feed 4	Remarks
1			57g/2ml	57g/2.5ml	mix 1, large faeces passed
2	55g/2.5ml	54g/3ml	53g/3ml	55g/3ml	mix 2 solid food, vocal and alert
3	55g/3ml	56g/5ml	56g/4ml	58g/5ml	coordination very good
4	56g/5ml	58g/5ml	61g/6ml	63g/5ml	very vocal
5	62g/5ml	65g/5ml	66g/6ml	68g/5ml	put chicks 1&2 together, both trying to stand
6	69g/5ml	70g/6ml	73g/6ml	76g/5ml	sticks put in basket to help grip
8	80g/6ml	80g/7ml	83g/7ml	85g/7ml	4ml mix, the rest solid chunks of cat food
13	132g/12ml	136g/12ml	140g/13ml	144g/13ml	first preening behaviour
15	153g/13ml	156g/13ml	164g/14ml	170g/15ml	pin-feathers starting to come through
17	175g/16ml	182g/16ml	187g/17ml	193g/17ml	standing well
20	234g/22g	240g/22g	254g/22g	253g/23g	boneless chick thigh meat given
26	364g/32g	382g/33g	395g/34g	411g/35g	finely minced chick given, feathers growing well
33	664g/66g	675g/67g		727g/72g	last feed cut out, feeding 10% of body weight
34	692g/69g	724g/72g		802g/80g	first pellet produced
44	1086g/106g	1130g/110g		1134g/113g	started to pick food up from dish over the last few days
46	1151g/115g	1210g/115g		1250g/115g	dropped off 10% as they are eating food left with them in between meals
50	1198g	1218g		1233g	self-feeding just putting chick mix in with them

*Louise Peat***Black-faced Ibis chick**

The two chicks developed at very similar rates, the main differences between the two being in their characters. As can be seen from the table (p. 111), most of the important developments happened in the first 20 days. Everything happened so quickly and so much information was recorded every day, detailing growth, movement, diet and changes made to it as the chicks grew bigger, that it is not possible to record it all here, besides which a lot of it would probably make boring reading for the majority of members. Therefore, what I have tried to do is to provide details of the most important stages in the chicks' development and the changes in their diet.

These are the first Black-faced Ibis to have been bred at the park and the first ibis that I have had the pleasure to hand-rear. I have been reliably informed that they were the quietest and cleanest of all the ibis that have been reared here. If this is the case, by the time you read this, I am likely to have spent much of the remainder of the breeding season cleaning up after our other ibis chicks.

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BREEDING THE BLUE-TAILED OR BANDED PITTA *Pitta guajana* AT VOGELPARK WALSRÖDE

by Dieter Rinke and Bernd Marcordes

Introduction

Although pittas have for a long time been kept in zoological institutions and by private aviculturists, little information about their maintenance in captivity has been published in scientific and avicultural journals.



Dieter Rinke

Adult female Banded Pitta



Dieter Rinke

Adult male Banded Pitta

Several species have been bred in captivity, of which the breedings of the Hooded Pitta *P. sordida*, Banded Pitta *P. guajana irena*, Noisy Pitta *P. versicolor*, Elegant Pitta *P. elegans* and Giant Pitta *P. caerulea* are well documented (Delacour, 1934; Lee et al. 1989; Vernon, 1974; Parrish, 1983; Pagel, 2001; McKelvie & Miller, 1979). In addition, Hooded Pittas are breeding prolifically in the huge tropical house at Burgers' Zoo, Arnhem (J. Wensing pers. comm.), while Blue-winged Pittas *P. moluccensis* at Frankfurt Zoo (S. Stadler pers. comm.), Blue-tailed Pittas at Copenhagen Zoo (F. Nielsen pers. comm.) and Gurney's Pittas *P. gurneyi* in the collection of a Thai bird fancier in the 1960s (cf. Collar, 2001) bred occasionally and reared young successfully.

Nevertheless, no pitta species has yet been bred to a sufficient level to achieve a sustainable captive population. In the regional collection plan for passerines in European zoos, the Hooded and Banded Pittas have been recommended for monitoring status with the aim of establishing viable populations within the institutions of the European Association of Zoos and Aquaria (EAZA). The North American Passerine TAG has recommended that the Hooded and Elegant Pittas be included in the regional collection plan (D. Rimlinger in litt.).

Maintenance

Three pairs of Banded Pittas were imported in 1999 from Indonesia, all of which were housed initially in the newly opened Nusantara Rainforest Paradise (NRP), a large tropical greenhouse for Indonesian birds. Two pairs could roam the entire area of 2,800sq m (approx. 30,000sq ft), while the third pair was placed in a 3m x 9m (approx. 10ft x 30ft) aviary. These are densely planted and offer a lot of hiding places.

The exhibit houses various frugivorous, insectivorous and carnivorous birds. Feeding places are distributed evenly, and the pittas take their share of livefood and freshly killed insects (mealworms, crickets, zophobas, waxmoth larvae, etc.) and dry insectivorous food, which is offered at all the feeding stations. The pittas also search the leaf and wood chip litter for insects and other invertebrates and often capture small earthworms. They use their bills intensively for turning over the ground.

At the same time that the Banded Pittas were introduced into the NRP, so was a small group of Hooded Pittas. Interactions between the pittas were observed very rarely, but it soon became clear that one pair dominated all the others, and it was only this pair that bred. When one pair was housed in one of the aviaries within the tropical house, the male of the dominant pair spent most of its time close by, and the pair in the aviary was very nervous. In small enclosures, male pittas may sometimes attack others and kill them; such attacks may happen even between young birds which have not yet

attained adult plumage. Consequently, except for the breeding pair of Banded Pittas, all the other pittas were removed from the NRP, even those in the separate aviary.

With our pairs of pittas we have rarely observed interactions between the male and female or between the pittas and other birds. Even juveniles do not seek close contact with their parents and approach them only when they are hungry. We have never seen pittas preening each other - the closest contact the male and female seem to have, apart from during copulation, is at the entrance of the nest, when they change over.

In November 2001, one of the aforementioned pairs of Banded Pittas was introduced into the large walk-through aviary (70m x 15m (approx. 230ft x 50ft)) in our old tropical house. This exhibit is similarly well planted and has three feeding stations spaced evenly throughout its length.

Reproduction

The nests of Banded Pittas are very rough constructions made of various kinds of materials, with the preferred material being dead leaves of various sizes. The materials are formed into a globular structure up to the size of a football, with the entrance at one side. There has been only one instance of the same nest being used twice.

The pair in the NRP has always chosen very similar nest sites, always at the meeting point of two sections of the exhibit's support structure, by the outside wall, and always at a height of 2.5m (just over 8ft) above the ground. Some of the nests have been hidden behind vegetation but others have been clearly visible from several metres (feet) away.

Although we learnt very quickly where to look for new nests, the pittas often constructed several new nests, so it has not always been easy to confirm the exact date that breeding began.

The pair in the old tropical house choose different nest sites, mostly close to the roof of the exhibit. This pair prefer to build in amongst or onto densely tangled vines. In addition, two nests have been built on tree trunks, one in a relatively open position between bromelias and the other in a thorny Bougainvillea. This pair is generally more secretive than the pair in the new tropical exhibit, and it took us quite a time to find most of the nests.

Banded Pittas lay clutches of three to four eggs; four eggs seems to be the normal clutch size. The eggs measure on average 26mm x 21mm and are whitish with dark brown spots mainly at the blunt end. We have not succeeded in determining the exact incubation period, which is approximately 13 days according to Lambert & Woodcock (1996). If the pittas are disturbed, they start to build a new nest after a short period of time. Even having successfully reared chicks, they commence a new breeding cycle soon afterwards. In both of our tropical houses, the pittas breed more or less all year round (see Tables 1 & 2).



Dieter Rinke

Male incubating in the NRP

Dieter Rinke

Young Banded Pittas at 13 days old**Table 1. Record of known breedings of the Banded Pittas in the NRP.**

2000	07/06	25/07	07/08	22/09	11/10	16/11	
	3 eggs	3 juv.	4 eggs	3 eggs	2 juv.	2 juv.	
2001	21/05	25/06	20/07	07/09		28/09	04/10
	3 juv.	4 juv.	3eggs	x eggs destroyed		1 juv.	2 eggs
2002	10/03	02/04	06/05	20/05	05/06		
	3 juv.	4 eggs*	3 eggs*	4 eggs*	4 eggs		

* Eggs removed for artificial incubation and rearing.



Dieter Rinke

Young at 30 days - female to the left. The sexual dimorphism is clearly visible



Dieter Rinke

Fledgling reared by its parents in the old tropical house

Table 2. Record of known breedings of the Banded Pitta in the old tropical house.

2002	25/01	25/02	20/03	09/04	03/05	10/06
	1 juv.	2 juv.	x eggs destroyed	3 eggs*	4 eggs*	1 fledgling

* Eggs removed for artificial incubation and rearing.

Hand-rearing

In the NRP, the Greater Birds of Paradise *Paradisaea apoda* often robbed the nests, therefore, we decided to remove the chicks and hand-rear them. At the beginning, we waited until the chicks were over five days old, because we were uncertain about our ability to successfully rear younger nestlings. However, having achieved good results, and because many nests were robbed even of the eggs, we soon began to remove the eggs for artificial incubation. Following the discussion about future conservation measures for the critically endangered Gurney's Pitta (see later), the hands-on management of pittas became an additional challenge to us.

The nestlings are fed for the first time approximately 18 hours after hatching. Each gets one piece of baby mouse or baby rat (one to two days old, as for such young birds the skin of older baby rats is almost indigestible), powdered with lactobacillus, and a small quantity of added water at the start. They continue to receive this amount of food at intervals of 90-120 minutes from 6.30am-8.30pm (06.30hrs-20.30hrs) for the first two days, but with the lactobacillus powder added only once a day. After this, the intervals between feeds are increased gradually to approximately every two to three hours, and until day six continue to consist only of baby rats and mice, though by then each receives several pieces until they stop begging for food. Once a day traces of a vitamin and mineral powder (Korvimin) and calcium are added to the food.

Since changing to this starting diet for the nestlings of our insectivorous and carnivorous species, we have had extraordinary success, with an enormous increase in the survival rates of our young chicks. With trogons (Rinke & Marcordes in press), birds of paradise, catbirds, vangas, couas, barbets and bee-eaters, being amongst the most notable species we have reared using this diet.

From day seven, beef heart, crickets and waxmoth larvae are added to the pittas' diet and gradually take the place of the pieces of rat and mice. At about day 18, the young pittas start feeding by themselves and we also offer them mealworms, dried insectivorous food and a little bit of fruit.

Earlier this year we took five clutches of eggs from our two breeding pairs, totalling in all 18 eggs (see Tables 1 & 2). One embryo died during incubation and out of the 17 pittas hatched, we lost four, they died at eight, four, four and four days of age respectively. Thirteen survived, a relatively high survival rate for a small to medium insectivorous species.

The nestlings were kept in artificial nests, each of which contained two nestlings. However, two of the deaths were caused by the young birds being soiled by the faeces of their nest companion. Therefore, it seems advisable to keep young birds singly in separate nests placed close together so that the birds have vocal and, later on, visual contact.

Nestlings are completely naked and have shining blackish skin. The papillae and the entire inside of the mouth are bright orange-yellow. Young Hooded Pittas look very different, having pink skin and a black head on hatching. The eyes of young Banded Pittas open at about eight days of age. At the same time, black feather shafts begin to develop and the chicks take on the appearance of tiny hedgehogs or sea urchins. The chicks fledged at 15-18 days of age.

At this early age the fledglings already show striking sexual dimorphism. Young males have dark brown breasts with faint streaks and show some banding on the flanks. Young females have the breast and upper belly lighter brown with cream coloured spots which get denser towards the centre, and lack any sign of banding on the flanks or elsewhere on the underparts. There is also a slight difference in the colour tone of the crown, which is darker in young males. These differences appear not to have been described before (cf. Lambert & Woodcock, 1996). Appendix 1 (p.121) charts the growth rate of seven of the hand-reared nestlings. Lambert & Woodcock (1996) give the weight of adult birds as 90g-120g.

Our hand-reared pittas do not develop a close bond with those who rear them and have shown hardly any signs of having become imprinted on humans. After they have fledged we keep them in small groups and the birds continue to develop their innate shyness in the presence of humans.

Discussion

Our experience clearly demonstrates that pittas can with extensive management be produced in relatively large numbers. Their reproductive potential, at least under optimal captive conditions, is high, as can be seen from the relatively short intervals between successive breedings. If the eggs are removed at an early stage of incubation, these intervals can be shortened to less than one month between clutches for at least three to four successive breedings.

Our experience may give the impression that breeding pittas is a simple task. This is clearly not the case, because it is exceptional for these birds to reproduce in captivity. There are apparently certain basic conditions which must be met for pittas to breed successfully.

What are the requirements for successful reproduction?

An important factor may be space, for pittas appear to require large territories with numerous hiding places in order to reproduce successfully. We will, however, shortly attempt to keep a pair of pittas in a densely planted outdoor aviary with similarly planted indoor facilities in order to figure out whether a large area is really necessary. The crucial point seems to be that it should have hiding places, because pittas often abandon nest sites once

they have been disturbed. It is our impression that pittas are highly sensitive, even to being watched from a distance, when they are constructing their nest. In a small enclosure, even the daily routine of feeding and cleaning may be sufficient disturbance to prevent the birds from breeding successfully. Hiding places may also help a bird to escape the attention of its mate. As mentioned earlier, pittas show very little social behaviour, and even the male and female of a pair live relatively solitary lives.

We had a pair of Hooded Pittas *P. s. cucullata* that attempted to breed in a relatively small enclosure, that following this unsuccessful breeding attempt, showed aggressive behaviour towards each other and did not start building again for more than a year. Aggression between male and female pittas can be reduced by housing them in large enclosures and providing sufficient hiding places, mainly in the form of dense plant cover. This seems to be particularly important when establishing new pairs. In two cases, the male killed the female in a small aviary, whereas in our large walk-through enclosures, no such incidents have occurred.

Important implications

The number of young which we could produce from two pairs of Banded Pittas in only a short period of time has important implications for the conservation of one of the rarest species of bird on earth - Gurney's Pitta. With perhaps just 20 individuals remaining in a few forest patches in peninsular Thailand, it may become extinct within the next few years in front of the eyes of the conservation community. If it does, it will probably be the best documented extinction of a species. What types of "protection and active conservation efforts" (Lambert & Woodcock, 1999 (p.112)) have brought its number from some 45 pairs in 1986 to approximately 20 birds in 1997 (BirdLife International, 2000)?

With a limited period of intensive hands-on management and moderate funding, Gurney's Pitta would have a good chance of recovery. It is though crucial to start a recovery programme as soon as possible, because every single bird that is lost from the dwindling population will reduce considerably the species' chance of survival.

The first step should be to increase the number of birds regardless of other considerations. A rearing facility should be built near Khao Nor Chuchi, the last stronghold of this species. Eggs and/or young should be collected from as many nests as can be found, to ensure that the genetic base for the recovery programme is as diverse as possible.

The young birds should be used for the following purposes:

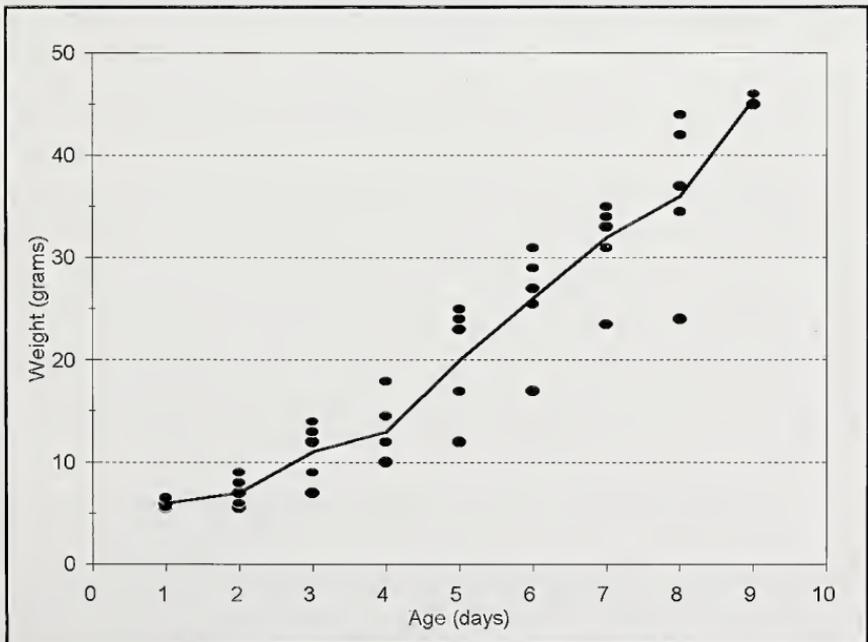
1. The release into the wild of a number of birds (to be determined) from every single pair in order to stabilize the small wild population. The

release of all reared birds would be unwise, as the carrying capacity of the reserve seems to be very low.

2. The establishment of a breeding facility at Khao Nor Chuchi, with the aim of producing more young pittas for a release programme at other potentially suitable sites. Such a breeding facility could also be used as an education centre.
3. The transfer of a genetically diverse group of young pittas to at least two renowned institutions to initiate an *ex-situ* captive breeding programme under the umbrella of the EAZA (European Association of Zoos and Aquaria). This group of birds could also be used for research on this species and as a back-up population in case of a catastrophic event in the pitta's native range.

It has been stated (BirdLife International, 2000 (p.403)) that conservation measures for Gurney's Pitta have "met with limited success", which is a rather positive assessment of the situation. Only with intensive hands-on management as outlined above, can Gurney's Pitta be brought back from the brink of extinction; and once we have a good number of birds to work with, we can think about future measures needed to guarantee its survival in the wild.

Appendix 1. Growth of seven hand-reared Banded pittas (single data and median).



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THE GREAT BLUE AND OTHER TURACOS

by Louise Peat

In 2000, our first major disappointment happened on April 17th, when our male Great Blue Turaco *Corythaëola cristata* was found dead on the nest. The pair was nine days into incubating a clutch of three eggs. The chilled eggs were rushed to our incubation room and the dead male was sent to Jason Waine for post mortem, which revealed it had suffered a heart attack from old age (the bird was wild-caught so we had no idea of its true age).

Two of the eggs proved to be clear, but the third went on to hatch, but unfortunately despite all our efforts the chick died four days later. We will never know if this was due to the egg having become chilled for an undetermined length of time. Our limited success with the Great Blue Turacos was very frustrating, we had several clutches of eggs from the pair, several chicks hatched and at one point we had three chicks in the nest. Our longest surviving chick lived 50 days. It was parent reared, and we began to have doubts as to whether the adults were up to the job of rearing their own chicks. We knew that Steve Bishop, who is in charge of Michel Klat's collection at the Old House Bird Garden, Hare Hatch, had also had little success with this species rearing their own young, but had tremendous success hand-rearing them. We decided to follow suit and remove one or two chicks from each clutch for hand-rearing, but at that point our male died. We later exchanged our female for a pair that had been captive-bred at the Old House Bird Garden.

For some reason our usually successful pair of Western Grey Plantain-eaters *Crinifer piscator* was having a bad breeding season, with all six eggs from the first two clutches covered with hairline cracks. It was decided to remove one of the eggs from the next clutch for artificial incubation and hand-rearing. Keeper Nathan Crockford, who had hand-reared a Western Grey Plantain-eater before, realised that the critical part of hand-rearing would be the diet during the first few days. Believing that there are similarities between the plantain-eater and the Great Blue Turaco, Nathan phoned Steve Bishop, who kindly provided him with details of the diet with which he has been so successful. Nathan has used this diet for both the Great Blue Turaco and Western Grey Plantain-eater.

The three stages to the diet:

Stage 1 (first nine days)

Every three hours for the first 24 hours chicks are given warm distilled water with a pinch of Avipro chick starter. On day two chicks start being fed, by syringe, the hand-rearing mixture made from 75% distilled water,

*Louise Peat*

Adult Great Blue Turaco

20% banana, with the remaining 5% consisting of racing pigeon pellets, budgie protein, nectar mix, shredded wheat and multi-vitamins, ground together into a fine powder. As the days progress, this changes to 50% distilled water, 40% banana and 10% powder, as the consistency of the mixture is made thicker. In addition to the main diet, wheat grass juice is fed by syringe to the chicks from day one through to independence.

Stage 2 (days nine to 11)

There is an overlap with Stage 1, with from about days six to seven small pieces of paw paw (papaya) and banana and whole soaked pigeon pellets occasionally being fed to chicks. The amounts of these are increased gradually until by days nine to 11 they form the bulk of their diet; with them still occasionally being offered the initial hand-rearing mixture. The wheat grass juice is especially important at this stage, for even though the pigeon pellets have been soaked, they can still soak up more moisture in the gut and the juice will help compensate for this.

Stage 3 (day 11 onwards)

By this stage chicks should be receiving 50% fruit and 50% pigeon pellets. They continue to receive wheat grass juice at each feed and different fruits are introduced gradually and the pigeon pellets are slowly phased-out until just a few are sprinkled on the top of each feed.



Louise Peat

Nestling Great Blue Turaco

By day 23 our plantain-eater chick was pretty much feeding itself. There had been a slight hiccup when on day 12 the chick refused to eat and over a 24 hour period lost 20g - one-third of its body weight. Nathan put the chick on a course of Baytril and within four days it had regained the lost weight and went on to grow into a healthy bird. Ironically, the adult pair succeeded in hatching and rearing a chick from the same clutch from which we had removed the egg, from which the chick was being hand-reared.

Over the previous four years the pair had successfully reared 10 chicks, all of which had been snapped-up by other collections. We were beginning to become concerned about flooding the UK with birds from the same bloodlines, as at that time nobody else seemed to be successfully breeding this species. However, in 1999, Birdworld, near Farnham, Surrey, began to breed from its pair. So, in 2000, we exchanged birds with it in order to establish a second pair. Shortly afterwards, International Touraco Society committee member Les Disley donated a pair to the park, meaning that we had three pairs and a considerably enlarged gene pool.

Later that year we exchanged our two female Fischer's Turacos *Tauraco fischeri* with Nigel Hewston for a breeding pair of Red-crested Turacos *T. erythrolophus*. All went well until the male escaped somehow and spent 10 days living on wild berries. Fortunately he never strayed out of earshot of the female and eventually entered our catching cage, baited with tempting tit-bits. A thorough search of the aviary failed to discover how he had managed to get out. The only logical explanation seemed to be that he had somehow succeeded in squeezing through the 2in (5cm) square mesh. Therefore, both birds were moved to a different aviary which has smaller sized mesh.

Our pair of Violaceous Turacos *Musophaga violacea* managed to surpass

themselves again that year and even though I tried to slow down the pair's eagerness to breed, the pair produced four male offspring. During my observations I noticed both birds off the nest at the same time while they had a very young chick in it. I had never noticed this behaviour before and due to the lateness of the season grew increasingly worried about the chick, which when I checked appeared strong but hungry. I gave the chick a feed and left it in the nest and went back to continue my observations. After a major bonding session the adults went back to brooding the chick. A few days later I grew concerned again, as I had seen no sign of the chick which was at the age when it should have been much more visible. Worried that there might be a problem, I reached into the nest to feel for the chick and to my surprise, although small for its age, it was fine and was sitting between two new eggs. The eggs were removed as it was felt that the birds would be unable to rear the chick and incubate the eggs at the same time. Only one of the eggs hatched and the chick was successfully hand-reared; the earlier chick was successfully reared by the parents.

I believe that the behaviour just described is not uncommon amongst turacos. Seeing it first-hand brought about a rush of questions, for example do wild turacos do this and, if so, why? If they do not, what are the captive conditions which bring this about, is it the plentiful supply of food? Surely it is not in the birds' best interests to 'over' breed like this, as not only will the adults exhaust themselves and lose condition, but it will ultimately affect the viability of the eggs and chicks. I know many breeders who have had turacos lay clutch after clutch after clutch, and I would be interested to learn the thoughts of other aviculturists on this matter.

We also had success with our White-cheeked Turacos *T. leucotis* which bred for the first time in our walk-through aviary. Nigel Hewston very kindly donated an old pair of White-cheeked Turacos which he had used in the past for foster rearing. They arrived in excellent condition despite their age - the male being a remarkable 26 years old!

On our section at the park we had eggs from 48 species of birds and a total of 76 young were reared to independence. The highlight was a second generation parent reared Black Stork *Ciconia nigra*.

Acknowledgements

I would like to thank Nathan Crockford and Jamie Graham (two dedicated keepers) for their contributions to this article.

The above article is based on one which was published first in the International Touraco Society Newsletter, which used to be edited by Louise Peat. Louise is a keeper at the Cotswold Wildlife Park, Burford, Oxon. OX18 4JW, UK. Tel:01993 823006/Fax:01993 823807/ Website: www.cotswoldwildlifepark.co.uk

RAISING OSTRICH CHICKS AT POTAWATOMI ZOO

by Greg Bockheim

Introduction

On June 23rd 2001, seven one and two day old ostrich chicks *Struthio* spp. were acquired by the Potawatomi Zoo, Indiana, USA. Details of their weights and food consumption were recorded from the time of their arrival to the time they were returned to their owners, 90 days later, on September 21st. The chicks were exhibited in a relatively large paddock intended for hoofstock, with their nearest neighbours being Addax *Addax nasomaculatus* on one side and Warhogs *Phacochoerus africanus* on the other. Zoo visitors viewed them along the southern boundary of the exhibit, with the northern boundary being the location of a small barn and indoor stall facilities. A water-filled moat acted as a barrier at the front of the exhibit. Further details about their accommodation and husbandry are given later.

Objectives

1. To fill the otherwise empty exhibit (the male Addax being shifted in with the female during the breeding and gestation periods).
2. To increase the zoo staff's experience of ostrich husbandry.
3. To collect data regarding the chicks' food, water and grit consumption.
4. To collect data regarding aspects of the chicks' behaviour, such as their impact on the exhibit and regarding their husbandry (e.g. the extent of their grazing, aggressive tendencies towards each other and their human caretakers (keepers), potential enrichment opportunities, etc.).
5. To facilitate public relations and media opportunities for the zoo.
6. To encourage visitor education through zoo talks.

Husbandry

The chicks were selected by the ranch owners to be raised for sale to future potential ostrich breeders. All were descendents of hybrids between the red-necked and blue-necked species *S. camelus* (and various of its subspecies (unspecified)) and *S. c. molybdophanes*. When delivered to the zoo the chicks were less than 72 hours old, making it necessary to follow strict husbandry guidelines. These were gleaned from the ostrich owners and later reviewed and posted in the ostrich stall by the zoo's animal care team.

Care guidelines

Enclosure

1. Please leave the red pig heaters, hanging from the barn ceiling, turned on at all times.

2. Leave the electric blower heater off as well as the barn ventilation system.
3. At night leave on only the barn hall lights, not the stall lights.
4. The chicks' stall will need only to be spot cleaned for the first one to three weeks.
5. The chicks must not be left out in the rain at any time during the first month.
6. The heat lamps will need to be raised as the chicks grow taller.

Food and water

1. The chicks will eat very little during the first week. It is unlikely that food will need to be added to their dishes for the first several days.
2. They will lose weight as their yolk sacs are absorbed and then begin to gain weight during their second week as their food consumption increases.
3. Diet: provide the chicks with turkey grower and the ground mix (in which alfalfa is visible) in their respective dishes at all times (add more food to the dishes when less than three cups of food remain in them).
4. Offer them water only in the shallow dish provided as chicks are prone to drown in deeper water.
5. Water consumption must be monitored closely. The water dish will have to be filled frequently (two to four times a day) as their food consumption and drinking increases. Sprinkle a small amount of clover leaves on the water and on top of the food to stimulate the chicks to eat and drink.
6. Grit will be sprinkled in the yard once the chicks are given more frequent access to it. The size of the grit will be increased as the chicks grow bigger.

Outdoor access

1. During the first few days the chicks should be given access to the outdoor howdy cage for one to two hours, during which they must be monitored the entire time. As they grow and become more acclimated to the howdy cage area they should be monitored throughout the time they are outdoors (we are uncertain if the domestic cats in the area, which initially showed interest, will be a danger).
2. Food and water dishes need to be placed outside when the birds are outside and then brought inside (in the stall with the heat lamps) when the chicks are brought inside.
3. The more time spent with the chicks, i.e. sitting with them in the howdy cage or in the stall, the more manageable and human friendly they may become.
4. Once the chicks are eating and drinking well and coming in and out of the barn on their own, the howdy cage can come down and the birds given access to the entire yard (this is likely to be after approximately

one to two weeks). The chicks should be weighed again before being given access to the large yard.

5. The fence keeping the chicks away from the water-filled moat must remain in place the entire time that the birds are at the zoo. Though they might drink the water and swim in it, it is likely they would be unable to get out of the water and could therefore become exhausted and drown.

Closing up at night

1. The chicks must be brought in every night. Gradually herd them from behind (with arms out, like when herding the flamingos) and they will slowly go indoors.
2. Confine them for the night in the single stall with the heat lamps, until it is decided that they can be allowed into both stalls. Be sure to place the board at the base of the interior shift door, between the stalls, to block the gap.

As the chicks grew and became more familiar with the husbandry routine, it became easier to shift them into the indoor stalls. By the time they were 30 days old, the keeper could simply enter the yard, kneel on the ground at the stall entrance, pick at the ground with her hand, and the chicks would come running to investigate. The birds would then follow the keeper indoors. This proved to be the quickest and safest way to shift the birds.

Ostrich exhibit

Site preparation

The paddock selected for the ostrich chicks was first inspected by the owners to check for anything that might affect the birds' well being. Containment parameters were determined and it was decided to give the group of ostrich chicks access to half of the unoccupied hoofstock paddock. The yard was then gone over carefully with metal detectors. A 4ft (approx. 1.2m) tall 1in (2.5cm) hexagon vinyl-coated chicken wire fence was placed diagonally from the stall entrance to the foremost western corner of the exhibit. This effectively cut down the space available to the chicks and kept them more to the front of the exhibit for increased visitor viewing. It also allowed the keepers to run the chicks into the stall in the evening, the idea being that the birds would follow the fence leading them directly to the indoor stalls.

The open-topped howdy cage made from fencing stakes and the same 1in (2.5cm) hexagon vinyl-coated wire was constructed in the outside yard at the stall entrance. It was 20ft (approx. 6m) in diameter and used to introduce the chicks to the yard during their first week. The chicks were also able to become familiar with the husbandry routine that included shifting

them indoors and outdoors, as well as food, water and grit presentation, and animal and visitor activity in the area. This was also the time when the keepers and chicks could familiarise themselves with each other.

It was felt initially that wild birds of prey, namely Great Horned Owls *Bubo virginianus* and Red-tailed Hawks *Buteo jamaicensis*, living in the park and surrounding area might be a threat to the tiny chicks. However, at no time were native raptors observed to take an interest in them. This was also true of the other prowlers found in the zoo grounds, such as cats, Raccoons *Procyon lotor* and opossums *Didelphis* sp.

The ostrich owners felt that the chicks would drink from the water-filled moat and might even swim in it, given the opportunity. The danger would be the birds' inability to climb out of the moat because of its steep sides. Also, it continues along the fronts of three other hoofstock paddocks and there would be nothing to prevent the birds swimming its entire length. Our solution to these problems was to install welded wire pig fencing, 2ft 8in (approx. 81cm) tall, 1ft (approx. 30cm) back from the moat. Both barriers, the chicken wire and the pig wire, proved effective in confining the chicks from the time they were tiny until they reached 90 days of age, when they were approximately 5ft (about 1.5m) tall, and were returned to their owners.

Chick rearing parameters

Ostrich chicks can be reared on a sand or straw substrate. It is important that this remains the same while they are being reared. Placing chicks on a new substrate once they have grown accustomed to another may confuse them and they may consume the new or foreign substrate. It was decided to raise our chicks on straw. The existing crushed limestone covering the floors of both indoor stalls was covered with straw to a depth of 6in (approx. 15cm). A 3ft (approx. 90cm) square x 2ft 6in (approx. 76cm) tall wood frame draped with a lightweight black plastic tarp was placed in the heated stall to simulate a parent bird. This was believed to have a calming effect on the chicks and to provide a hiding place for them should they feel the need for this. However, the chicks seemed to pay little attention to it and on only one occasion was a chick observed to sit with its head beneath it. Two ceramic pig heaters were hung 2ft 6in (76cm) from the floor and 2ft (61cm) apart.

The howdy cage had the typical grass and earth floor found at most paddock barn entrances. The paddock itself, to which the chicks were eventually given all-day access, had a dense covering of pasture grasses and clover. This was mowed to 4in (10cm) high several days before the chicks were released into the paddock. Constant grazing by the birds meant that no further upkeep was necessary.

Feeding

Those familiar with ratites know that ostriches will consume just about anything, be it food or foreign objects. When rearing ostrich chicks additional considerations come into play, such as how food and water are presented to the chicks, so that these are recognisable to them. When newly hatched they are often less than 1ft (30.5cm) tall and water dishes more than 1in (2.5cm) deep may be one of the greatest dangers to them, not only because they could drown in them but also because they may fail to learn to reach over the top into deeper dishes, causing the chicks to quickly dehydrate. Much the same is true for feeding dishes, which must be easy for the chicks to feed from. As the chicks grow, larger dishes are needed to accommodate the larger quantities of food necessary to maintain their rapid growth. When the food and water dishes are replaced by larger dishes, the birds must be carefully monitored to make sure that they eat and drink from these normally as before. Our food dish or bowl size (when the chicks were 3ft plus (approx. 1m) tall) eventually increased to the industry standard black rubber tubs 4in (10cm) deep (two being used), with water being provided in 1ft (30.5cm) deep tubs of the same make.

Food consumption

The table below reviews the amounts of food consumed by the seven ostrich chicks during their 90 days at the zoo. Very little food was eaten during the chicks' initial 10 days but the amounts soon increased as the birds began to grow faster. The total cost estimate for this was \$304.74 (just over £200).

Table 1. Food consumption 1-90 days of age.

Age in days/No of days	Food consumed	Grit consumed
1-28/28	200lb starter 44lb grind	50lb small ratite grit at the end of 55 days
29-55/27	150lb starter 100 lb grind	
56-79/23	530lb grind	50lb medium size ratite grit up to 90 days of age
80-90/11	402lb grind	

Commercially made Nutrena™ turkey starter (28% protein) and a grind mix (19% protein) made by the ostrich owners (largely from alfalfa, ground corn, soy meal and vitamin and mineral additives) were offered to the chicks during their first two months. By the middle to the end of their second month, the chicks were weaned gradually onto eating just the grind mix. This feeding regime proved effective in raising healthy ostrich chicks, as well as being far more economical, because the grind mix is produced by

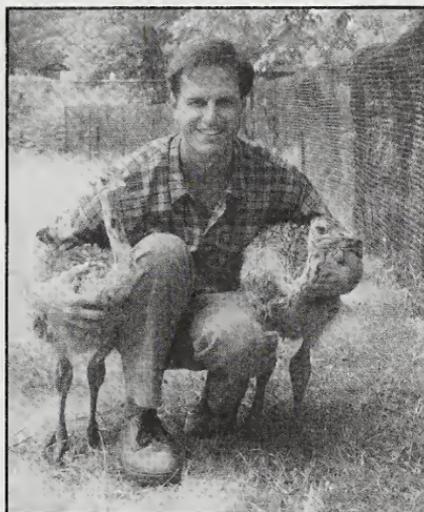
*Jason Jacobs***Two ostrich chicks**

the grower at a cost far below that of commercially manufactured diets. Adult, farm-raised ostriches, are recorded as eating approx. 8lbs (3.6kg) of commercially produced ratiite pellets per days.

Freshly ground batches of grind mix were picked up twice a week. The chicks would consume less of this if it became old and stale. Grit was scattered in the howdy cage and then in the paddock nearly every two days throughout their stay at the zoo. It was suggested that the birds should from the time they were 60 days of age, also be offered grit in a bowl. However, we found that the chicks ignored this, therefore, we simply continued to scatter grit in the paddock, to avoid digestive and impaction problems.

During their first four weeks the chicks were offered their food and water in stainless steel pans 10in x 1ft 2in x 1in deep (approx. 25.5cm x 35.5cm x 2.5cm deep), after which the chicks were fed from the 4in (10cm) deep black rubber hoofstock tubs mentioned earlier, which were approximately 2ft (60cm) in diameter. When the chicks were approximately 50 days of age, water was offered in the larger black rubber tubs. The husbandry protocol required that the chicks always had food and water before them. To achieve this, food and water were placed in the paddock when the birds were locked outside and were then brought into the indoor stall when the chicks were brought in at night. Several times each day the keeper checked that the birds had sufficient food and water. If there was still a large quantity of food remaining, the keeper would stir the food and add more water to the water bowls. Stirring the food would stimulate the chicks to eat and drink. The water bowls needed to be refilled more frequently on very hot days.

As the birds increased in size so did their wastefulness and larger quantities of food would be tossed on the surrounding ground by them. We estimated that approximately 10%-15% of the food fed to them during the 90 day period was wasted in this manner.

*Jason Jacobs***The author with two chicks**

Weighing chicks

As can be imagined weighing young ostrich chicks is far easier than weighing adults. Small chicks can be placed in a bucket on a scale. As they grow they can be hand-held and weighed, with the handler's weight then being subtracted. Once they are larger a sock can be placed over their heads and then they can be walked backwards onto a scale. This is sometimes more easily done by holding the bird's neck while walking it backwards.

Table 2. Chick weights (in pounds - 1lb = 0.453kg).

Age and Weight				
Specimen ID #	1-2 days	16-17days	36-37 days	90-91 days
21	2	4.8	12.2	77
22	2.2	3.2		73
23	1.7	4		74
24	2.2	4.4		74
25	1.8	4.7		86
41	2	4.8	12.2	75
45	2.3	4.6		83

Enrichment

Actively motivating captive animals, especially those in zoos and educational settings, positively benefits not only the animals, but also sparks interest in the person or persons observing the behaviour. Such motivation translates into enrichment.

Various enrichment strategies were implemented during the chick rearing

Table 3. Enrichment activities on a scale of 1-5.

Enrichment Item	Enrichment defined	Success Rating
Broccoli stem or corn on the cob	Broccoli stem or corn cob tied onto string and hung from stall wall or fence at just below birds' eye (pecking) level.	5
Broccoli stem or corn cob	Fed in food bowl.	4
Small cherry tomatoes and grapes	Fed as a training tool to bring birds into arms' reach in order to reduce their apprehension of approaching keepers.	5
Kale or tossed greens	Chopped and fed in large bowls.	4
Raking exhibit	Chicks followed and occasionally peck at keeper, rake and detritus.	4
Sprinkler	On warm days a sprinkler was turned on in the exhibit and the birds bathed in the spray.	5
Red ball	Children's ball about half the size of a soccer ball was placed in the exhibit. The birds' initial interest quickly dwindled but they frequently reinvestigated the ball throughout the day.	4
Shift training	Any enrichment food including tomatoes, chopped kale, corn or broccoli was placed in a stall attracting the birds to shift into the area.	5
Mirror	Medium sized mirrors were hung in the exhibit and were occasionally investigated by the birds.	3
Incidental pond misting	A continuous flow of water produced a strong breeze and fine mist that sprayed into the front of the ostrich exhibit. When the birds discovered this they were frequently seen frolicking in the spray.	5

process. Each of these achieved varying degrees of success. Training birds to shift from stall to stall and from indoors to outdoors could also be considered as enrichment, as it motivated them to act (i.e. walk, trot and run to a given area). Offering various common and strange food items, some in unusual manners or as rewards, were part of the birds' daily enrichment activities. The table (on the opposite page) lists some of the enrichments implemented and their success ratings. All were implemented once the chicks had passed 30 days of age, when their size had increased and they had become familiar with their surroundings and their daily staple diet.

Summary

Raising ostrich chicks from one and two days of age proved to be an exciting challenge and a great success for Potawatomi Zoo. The knowledge shared with us by the ostrich breeders enabled the project to succeed without incident. The projects earlier stated objectives all obtained high ratings. The chicks provided exceptional photo and film opportunities for the media and allowed close-up viewing by zoo supporters. Raising these birds from such a young age gave zoo volunteers and visitors a unique opportunity to learn about these ratites during the energetic and quirky days of their youth, an experience not often available in a zoo setting. During their stay the chicks led healthy and active lives and did not present any significant medical problems.

Acknowledgements

I would like to thank the owners of the ostrich chicks, Nick Stama and Todd Fernwalt, for their confidence in the zoo staff's ability to undertake this project, for providing for the dietary needs of the birds and for making themselves available for consultation. I would also like to thank the animal care team at Potawatomi Zoo, especially Jeri Ellis, Fred Wagner, Jeremy Goodman, Laura Arriaga, Debbie Shepperd and Stephanie Miller, for the exceptional care they provided for these birds. Thanks also to Jason Jacobs for his photographs and Zoo Director Clarence Wright for his support of this project.

If you would like further information, Greg Bockheim, General Curator, can be contacted via e-mail: Gregbockheim@aol.com or at Potawatomi Zoo, 500 South Greenlawn, South Bend, Indiana 46615, USA. Tel:(219) 235-9800/Fax:(219) 235-9080.

BOOK REVIEWS

VOLUME SEVEN OF HANDBOOK OF THE BIRDS OF THE WORLD

It is increasingly difficult to add anything to the superlatives that have greeted the first six volumes of the *Handbook of the Birds of the World*. Now comes number seven - effectively the volume which propelled what I believe was to have been a 12 volume set into a 16 volume odyssey. Nothing wrong with that. The additional volumes are certain to make a further significant contribution to our knowledge of the world's birds.

This particularly spectacular volume deals with some of the world's most eye-catching and colourful families - Jacamars, Puffbirds, Barbets, Toucans, Honeyguides and Woodpeckers. It is in every sense a 'big book' in size, weight and content, including superlative colour plates and hundreds of colour photographs of birds in the wild. Its publication marks the conclusion of material about non-passerine species; Volume 8, to be published in 2003, will cover Broadbills, Asities, Ovenbirds, Woodcreepers, Antbirds, Antpittas, Tapalucos, Gnateaters, Cotingas and Manakins.

Volume 7 includes 317 outstanding colour photographs of birds in the wild taken by some of the world's leading wildlife photographers. The 70 colour plates have been painted by Hilary Burn, Clive Byers, Ian Lewington, Tim Worfolk, Albert Earl Gilbert, Ian Willis, Dave Nurney, Chris Rose, John Cox, Mark Hulme and Angels Jutglar. There are also 408 distribution maps and an informative 50-page foreword about extinct birds contributed by Errol Fuller.

The text is, as usual, impeccable, informative, scientifically accurate and remarkably readable - the latter a rare and utterly commendable feature of a work of this substance. For those unfamiliar with these volumes it is worth noting that each family is treated to a very comprehensive introduction which is arranged under the headings Systematics, Morphological Aspects, Habitat, General Habits, Voice, Food and Feeding, Breeding, Movements, Status and Conservation. These are illustrated with colour photographs. All species accounts are accompanied with colour plates which, where necessary, take account of sexual dimorphism and distinctive subspecies. The amount of detail contained in these narratives is remarkable. Concise but detailed information about habitat, food and feeding, breeding, status and conservation - plus a useful introductory paragraph which deals with taxonomic aspects - and despite the extremely high quality of colour plates, detailed descriptive notes are provided throughout.

So far as the photographs are concerned they at least match, and perhaps enhance, the high standards achieved in preceding volumes. Many are

exciting, some are remarkable and one can only wonder what time and skill lies behind acquisition of the images. I particularly like a picture by Bernard van Elegem of a pair of Coppersmith Barbets *Megalaima haemacephala indica* photographed high in the branches of a dead tree in Thailand's Kaeng Krachan National Park.

Also worth a second look are three digitally coloured pictures of the now extinct Ivory-billed Woodpecker *Campephilus principalis* photographed in Louisiana during the 1930s by James T. Tanner who studied some of the last breeding pairs in the USA. There are many excellent pictures of flickers, piculets and woodpeckers at the nest, in some cases feeding well-grown young - but then, these birds have always tended to be amenable subjects as they cling tenaciously to the bark below their nest hole. There are many more superb photographs enhancing a further magnificent volume from Lynx Edicions.

As a gift to purchasers of Volume 7, Lynx Edicions are including with each volume a handy, plasticised index of all non-passerine groups. With pictures and a list of the names of all bird groups covered in HBW to date, this index makes it easy to locate exactly where in the seven volumes so far published any given non-passerine group is dealt with. A nice touch.

Handbook of the Birds of the World Volume 7, Jacamars to Woodpeckers, edited by J. del Hoyo, A. Elliot & J. Sargatal, is published by Lynx Edicions, Montseny, 8, E-08193 Bellaterra, Barcelona, Spain. It is priced £110. Further information, samples and ordering are available online at :www.hbw.com

Frank Woolham

ESTRILDID FINCHES

Hancock House Encyclopedia of Estrildid Finches by Matthew M. Vriends and Tanya M. Heming-Vriends is an attractive and well produced title. As expected in an encyclopedia, the text is detailed and informative.

It is divided into two main parts. The first covers the origins of the Estrildid finches and the requirements for their aviculture. This extends from management to illness, nutrition and breeding. In the chapter on breeding, the authors rightly warn of the dangers of crossbreeding and producing hybrids. With the current situation of ever increasing restrictions on bird importations, they remind aviculturists of the need to maintain clear groups of bird species, to provide a breeding nucleus for the future. This part of the text is supported by some excellent colour photos showing all the materials required for Estrildid husbandry, from aviaries to seeds.

The second part consists of detailed profiles of the Estrildid species. This part includes some superb colour photos. These include many interesting

and seldom seen subjects, such as subspecies of the Green-backed Twinspot (shown together on the same page), nestlings of the Vinaceous Firefinch, munias and Australian finches.

There are two classification lists, Vriends (after Wolters et al.) p.254 and Sibley, Ahlquist and Monroe, p.255. The publication details for these lists are not included in the Bibliography and I was surprised to see that Derek Goodwin's *Estrildid finches of the world* (British Museum (Natural History) & Oxford University Press, 1982) is also not included.

Hancock House Encyclopedia of Estrildid Finches (ISBN 0-88839-493-4) is a hardback volume. It has 264 pages, 344 colour photos and over 100 line illustrations. It is published by Hancock House Publishers, 1431 Harrison Avenue, Blaine, WA 98230-5005, USA. It is priced US\$60.00 and can be ordered online at: www.hancockhouse.com or email: sales@hancockhouse.com

Jeffrey Trollope

DUCKS, GEESE AND TURKEYS

Victoria Roberts has produced another gem - *Ducks, Geese and Turkeys for anyone* - which deals with more than 50 breeds of these domestic birds. Ducks command the major share of this informative book, followed by geese and turkeys. It may not be immediately apparent that you are on a learning curve as you read the author's often amusing but always informative accounts of how to care for birds ranging from call duck to - so far as I am concerned - unheard of turkey breeds such as the Nebraskan Spotted and Narragansett.

Victoria - Tor to her many friends in aviculture, farming, conservation and other activities connected with the countryside - is now up among the bestsellers in her field. This is not a boring volume which expounds the need for dropping board cleanliness and how to avoid red mite. Rather it is an exposition of the joys of keeping domestic poultry - coupled with some cautionary notes about the perils involved.

The text is bright, breezy and informative. Michael Corrigan's 90 colour photographs are a beautiful complement to the words. It's a good book!

Ducks, Geese and Turkeys for anyone, by Victoria Roberts BVSc, MRCVS costs £19.99 and is published by Whittet Books Limited, Hill Farm, Stonham Road, Cotton, Stowmarket, Suffolk IP14 4RQ, UK. It is available from all good booksellers.

Frank Woolham

NEWS & VIEWS

CONGRATULATIONS

Members will wish to congratulate Mike Curzon on the award of the MBE (Member of the British Empire) in the Queen's Golden Jubilee birthday honours list. Mike, an Avicultural Society Council Member and until its closure a director of The Tropical Bird Gardens, Rode, Somerset, received his award for "services to the prevention of bird smuggling." He continues to keep a small collection of birds of his own, including Grey Hornbills *Tockus nasutus*, fruit pigeons, Orange-headed Ground Thrushes *Zoothera citrina*, tanagers, sugarbirds and breeding Red-flanked Lorikeets *Charmosyna placensis*.

* * *

LONG LOST PARROT REDISCOVERED

After months of searching, an expedition from Bogotá University has succeeded in finding a flock of 14 Fuertes's Parrots *Hapalopsittaca fuertesi* near the summit of the highest volcano in Colombia. It is thought to be the first definite sighting of this species since 1911, when seven were captured by American ornithologists near the peak of the same volcano.

All subsequent expeditions had failed to find this species again, until July 28th this year, when Jorge Velasquez and his team of ornithologists found the parrots 10,000ft (approx. 3,000m) up the densely vegetated volcano, which is often shrouded in mist. Expedition members took detailed notes, photographs, video footage and sound recordings of the birds and will develop a plan to save the colourful Fuertes's Parrot and its habitat.

It has also been reported that Renato Gaban-Lima and Marcos Raposo, graduate students at the University of São Paulo, Brazil, believe they have discovered a new species of parrot. The orange-headed birds, thought previously to be immature Vulturine Parrots *Gypopsitta vulturina*, have been given the scientific name *Pionopsitta aurantiocephala*.

* * *

SUCCESS WITH THE 'BUCK TOWN SUCKIE'

An account in *Cage & Aviary Birds* (July 20th issue), described how UK aviculturist Peter Blake had to date this year bred six Burnished Buff Tanagers *Tangara cayana* from three clutches, having bred a single female last year. He put his success breeding this species and the Blue-headed *T. cyanicollis* down to providing the parents with large quantities of soft-skinned white mealworms. The Burnish Buff Tanager was first bred in the UK by H. Murray in 1961. Called then Cayenne Tanagers, his birds were imported from what was then British Guiana (now Guyana), where the species was said to be known as the 'Buck Town Suckie'.

AFTER A LONG ABSENCE

A pair of Choughs *Pyrrhocorax pyrrhocorax*, thought to have originated from Ireland, which have settled on the cliff-tops at Kynance Cove, west Cornwall, earlier this year hatched four young, three of which were reared to independence. All three are said to be males. It was the first time for at least 50 years that this member of the Crow family has nested in Cornwall or anywhere else in England. Also this year, for the first time in almost 50 years, a pair of Bee-eaters *Merops apiaster* nested in England, in a disused quarry in a nature reserve at Bishops Middleham, near Sedgfield, County Durham.

* * *

NEW TITLES

A & C Black has acquired T & A D Poyser and Academic Press Natural World from Elsevier Science. In doing so, it has acquired a backlist of some 70 titles, which will be integrated into the Christopher Helm division of A & C Black.

The seventh and final volume of *Birds of Africa* will be published in 2004, followed a couple of years later by *Birds of Madagascar*, a companion volume in the same format. There are also plans for a major new *Field Guide to the Birds of Northeast Africa* (Ethiopia, Eritrea, Somalia and Sudan), the first comprehensive guide to the birds of the islands of Melanesia and the third edition, by far the biggest yet, of Howard & Moore's *Checklist of the Birds of the World* (scheduled for next year).

The second volume of *Birds of the Thai-Malay Peninsula* is also expected shortly and there are plans for a field guide to African raptors and a 10-CD guide to *East African Bird Sounds*.

* * *

AFTER 50 YEARS OF TRYING

After 50 years of trying, the Wildfowl and Wetlands Trust, Slimbridge, Glos., has succeeded in breeding the White-backed Duck *Thalassornis leuconotus*. Six ducklings were hatched. There are said to be only 28 White-backed Ducks in UK collections.

* * *

SEPTEMBER CLOSURES

Hillside Bird Oasis, Mobberley, Cheshire, where in 1999 the Lesser Flamingo *Phoeniconaias minor* bred for the first time in the UK (*Avicultural Magazine* Vol.106, No.3, pp. 126-128 (2000)), has closed to visitors. In future it will act as a private breeding centre for Blackbrook Zoological Park, near Leek, Staffordshire. September also witnessed the closure of Gatwick Zoo, credited with having been the first collection in the UK to breed the Military Macaw *Ara militaris*.

UNPRECEDENTED INTEREST

To allay many South African farmers' concerns about the potential impact of animal dips on oxpeckers *Buphagus* spp., the Poison Working Group (PWG) there has compiled a chart that lists every animal dip on the market and indicates which are safe to oxpeckers and this information is also included now on the labels of all animal dips on sale in South Africa. This has triggered unprecedented interest in these birds and the PWG has designed a protocol to attract and keep oxpeckers on farms. All the information is combined in the latest edition of the Oxpecker Compatibility Chart available from the Poison Working Group, P.O. Box 72334, Parkview 2122, South Africa.

* * *

PAINTED BUNTING UPDATE

Preliminary data analysis by Eduardo E. Iñigo-Elias, Kenneth V. Rosenberg and Jeffrey V. Wells at Cornell Laboratory of Ornithology (*Birdscope* Summer 2002/Volume 16, Number 3), reveals that for the domestic market in Mexico alone, more than 100,000 Painted Buntings *Passerina ciris* were trapped between 1984 and 2000, an average of 5,800 per year. This does not include those trapped illegally. Illegal trapping is said to be commonplace, but it is of course impossible to put a figure on the number of birds involved.

The export of wild caught birds from Mexico was banned from 1982-1999. Since the ban was lifted, more than 6,000 Painted Buntings have been exported to Belgium, Italy, Germany, the Netherlands, Greece, Spain and Japan. It is those of the larger western population *P. c. pallidior* that are subject to trapping for the bird trade in Mexico. This population migrates first to so-called staging areas in south-western USA and north-western Mexico, before flying on to its wintering grounds in southern Mexico, Belize, Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica and Panama. The eastern population moults on its breeding grounds just before migrating to southern Florida and the Caribbean islands. Because the two populations are isolated from each other, moult at different times and vary in other ways, it has been suggested that they should in fact be treated as two distinct species.

* * *

DR JEAN-MARIE DERSCHEID (1901-1944)

Raymond Sawyer (p. 100) mentioned that at the outbreak of the Second World War, John Yealland was looking after the private collection of Dr J. M. Derscheid in Belgium. I recently received an enquiry about Jean-Marie Derscheid, it came from Daniel A. Reboussin, Ph.D., Assistant Bibliographer, Africana Collection, George A. Smathers Libraries, Dept. of Special and Area Studies Collections, University of Florida. He wanted to know if I could confirm that Jean-Marie Derscheid had been a member of the

Avicultural Society and whether I could provide him with a description of an article by Dr Derscheid which had been published posthumously in the magazine in 1947?

I was able to confirm that Dr Derscheid had been a member of the society and with the help of Daniel Shearing was able to trace three articles by him that were published in the magazine that year. These were: *The Charm of Small Waders in Captivity* (Vol.53, No. 1, p.8, continued No. 5, p.145); *Strange Parrots - 1. The Kea* (No. 2, p.44); *The Goldeneye in Captivity* (No. 6, p. 217). By coincidence, a few days earlier I had come upon a reference to Dr Derscheid in *News & Views*, Vol.77, No.5, pp. 177-178 (1971). Arthur Prestwich had written: "Mention of Keas in the last number of the Magazine is a reminder that before the War the late Dr. Derscheid had a pair in his extensive collection at Sterrebeek, of which John Yealland was curator. 13th March is a date imprinted on the memory of some older Members of the Society, for on that day in 1944 Jean Marie Eugène Derscheid, the father of our present Hon. Fellow Jean-Pierre, was shot, after thirty months' imprisonment in Germany, as a political prisoner. Dr. Derscheid was in the forefront of the Resistance Movement and took a major part in the Escape Service. Many British and American servicemen have particular cause to be very grateful to Dr. Derscheid for his incalculable help. And at how great a cost to himself."

I was curious as to why Dr Derscheid had aroused the interest of the Africana Collection, until Daniel Reboussin told me that in the university library there is on microfilm a master negative of Dr Derscheid's scholarly notes and papers on Rwandan history. He in turn had been surprised to learn that Dr Derscheid had been a noted aviculturist, as there is no evidence of his ornithological or any biological interests on the microfilm. It would be of great interest to him to learn if any of Dr Derscheid's work on birds has been preserved and, if so, where it is to be found?

Dr Reboussin has begun a webpage - <http://www.uflib.ufl.edu/cm/africana/derscheid.htm> - documenting his research on Dr Derscheid, who he describes as "a very impressive individual who exhibited distinction in so many areas of his rather short life." According to the webpage Dr Derscheid was beheaded in Brandenburg Prison, Berlin. He is also mentioned briefly on another website: <http://home.clara.net/clinchy/index.htm>

In John James Yealland 1904-1983 (*Avicultural Magazine* Vol.89, No.2, p.111 (1983)), Mary Harvey recalled how in 1940 "John managed to get on one of the last boats leaving before the German invasion. Whilst the other refugees on the crowded boat were clutching their precious belongings, John doggedly nursed a pair of rare ducks in a cardboard box all the way back to safety in England."

FOUND IN EMU

The Masked Plover *Vanellus miles*, which has in recent years become a familiar bird in many collections, in 1994 extended its range to New Caledonia (home of the Kagu *Rhynochetos jubatus*). The first record of it breeding there was confirmed in 1998, though it probably bred there first two years earlier, reports Nicholas Barré in *Emu* Vol.102, No.3, pp.313-314 (2002). In the same issue (pp.223-231), Olsen, Wink, Sauer-Gürth and Trost report the discovery of a new species of owl on the island of Sumba, Indonesia. Their report is illustrated by some good colour photos of the species, named the Little Sumba Hawk-Owl *Ninox sumbaensis*.

* * *

TROGONS BREED IN AQUARIUM

The White-tailed Trogon *Trogon viridis*, bred first in captivity in 1995 at Vogelpark Walsrode, Germany. Now a pair is breeding in the walk-through neotropical rainforest display at the National Aquarium in Baltimore, Maryland, USA. Three young were reared successfully earlier this year. This species bred there first in 2000, when a chick found outside the nest was hand-reared. Last year two chicks were successfully raised by the parents.

* * *

SACRED SIGHTING

Earlier this year a Sacred Ibis *Threskiornis aethiopicus* was seen at Moreton Lakes, Astbury, near Congleton, Cheshire, UK. Later, what was thought to be the same escapee, was seen and photographed in the car park of Staffordshire University, Stoke-on-Trent.

* * *

THIRD (REVISED) EDITION

Australian Parrots by Joseph M. Forshaw and William T. Cooper has recently been published in a Third (Revised) Edition under the Alexander Editions imprint, a division of Avi-Trader Publishing. The trade edition is priced AU\$149.95 plus AU\$12.05 postage and handling (with an additional AU\$20.05 for overseas shipping). Further information is available from Avi-Trader Publishing Pty. Ltd., Suite 351, Locked Bag 1, Robina Town Centre, Queensland 4230, Australia. Tel:+61 7 55 620 870/Fax: +61 7 55 620 849. It can be purchased online at: www.australianparrots.com The above is also the new postal address of *Pet & Aviary Birds* incorporating *Australian Avi-Trader* (new website: www.petandaviarybirds.com).

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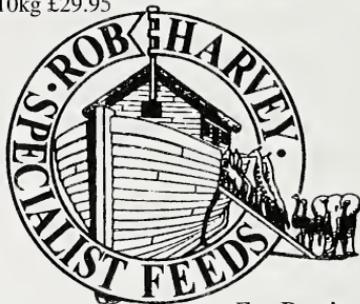
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