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THE AVICULTURAL SOCIETY

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COUNCIL MEETING

A council meeting was held on Saturday, April 9th at Leeds Castle, near Maidstone, Kent.

The following members were present: Miss R. Ezra (President), C.J.S. Marler (Vice President and Chairman), R.C.J. Sawyer (Vice President), M. Ellis (Hon. Editor), Mrs L. Gardner, N.R. Hewston, S. Pyper, J.G. Thurlow, B. Tremlett, J. Trollope, Mrs Rosemary Wiseman. W. Harrison had resigned prior to the meeting and R. Abrey was elected to fill the vacancy.

The Hon. Editor reported that he hopes to soon be ready to publish Dr Quinque's important account of his many years keeping, breeding and conserving the Kagu. This will be illustrated by a number of excellent colour photographs. This apart, however, he has very little material in hand for 2005.

The council agreed that the society should in 2005 again make donations to The Foreign Bird Federation towards the cost of sending out its *Breeding Register*, as well as to the Hornbill Research Foundation in Thailand and the Yellow-throated Laughingthrush project in China. It is hoped that we will shortly receive a report on The Wildfowl & Wetlands Trust's satellite tracking of Lesser Flamingos in the Rift Valley, following which the council will consider the request for a donation towards research on the Red-breasted Goose. Laura Gardner suggested that at the President's Garden Party the society should hold a raffle to help raise funds for conservation projects. Rosemary Wiseman offered to assist her organise this. If you would like to donate a prize, please contact the society.

The President Miss Ruth Ezra presented the society's medal to Christopher Marler for the UK first breeding of the American Bald Eagle. Christopher said the pair has one egg this year and if it hatches and the chick is reared successfully, he will have bred a total of 30 Bald Eagles.

Following the council meeting there was an AGM. Those present were welcomed by the Chairman and after his introduction, the Hon. Editor gave his report, the Hon. Secretary/Treasurer's report was read out, plans for supporting conservation projects were outlined and other matters were discussed. After lunch members and their guests were taken on a guided tour of the bird collection by Laura Gardner. Notes on the collection will, it is hoped, be published in a future issue of the magazine.

Members have been invited to Beale Park Day, July 3rd (see p.41), a group of members and their guests are to visit Dr Quinque's collection in France, the President's Garden Party is to be held Saturday, July 9th (a booking form is included with this magazine) and it is hoped to hold the Autumn Meeting on Saturday, September 24th at Paignton Zoo Environmental Park. Members and their guests may also wish to take the opportunity to visit Living Coasts at nearby Torquay.

***Brotogeris* PARAKEETS AND OTHER FERAL PARROTS IN SOUTHERN FLORIDA**

by Derian A. L. Silva Moraton

It was barely 6.21am when like clockwork the small flock of *Brotogeris* parakeets flew overhead - during the 13 weeks in which I recorded the daily departure of the flock, the time of its departure never varied by more than three minutes. The parakeets begin to chatter as the sun starts to rise. After about 10 minutes they take short circular flights and return to the stand of palms that they use for roosting. Then after a few passes the parakeets fly up and move off in a loose, vocal flock that can be heard from some distance away. Observing them requires one to have good eyesight (and/or a pair of binoculars), as they fly very high. They awaken earlier than the other parrots, flying overhead some 20-30 minutes before the macaws, Amazons, White-eyed Conures *Aratinga leucophthalmus*, Mitred Conures *A. mitrata* and Quaker Parakeets *Myiopsitta monachus*.

Such scenes are played out daily in Central and South America, but my observations take place almost daily where I live at Miami Beach, Florida, USA. The feral flocks of parrots feed on the numerous ornamental trees. The *Brotogeris* parakeets avidly consume the fruits of *Ficus* and the flowers of *Bauhinia*, amongst others. The birds live amongst a concrete jungle with an understory of ornamental trees and shrubbery. Here they find security, food and nesting places. As a result their numbers are swelling, though of course some are more successful than others. Over the years it has been possible to witness population changes and a growing number of hybrids. The latter also breed and I have seen two Amazons, each of mixed parentage, produce offspring. The birds involved were a Blue-fronted *Amazona aestiva* x Orange-winged Amazon *A. amazonica* and a Yellow-naped *A. auropalliata* x Yellow-crowned Amazon *A. ochrocephala*.

The *Brotogeris* parakeets are a particularly interesting group. The original populations in southern Florida were of White-winged Parakeets *B. versicolorus*. The populations grew slowly and were confined to just a few areas, principally to the south of Miami. With the escape of the more aggressive Canary-winged Parakeet *B. chiriri* or *B. v. chiriri*¹, populations of which are booming and spreading quickly throughout the city, a change is being seen; populations of the White-winged Parakeet are giving way to its more outgoing and vocal relative, which has established itself now throughout Miami Dade. I have seen flocks in North Miami Beach, Little

¹ Many authors continue to treat the Canary-winged Parakeet as a subspecies of the White-winged; however some, including the present author, regard it as a full species in its own right. Later in this article he explains his reasons for believing this. - Ed.

Haiti, Coconut Grove and Kendall, amongst other locales. In many areas in which I used to observe the White-winged Parakeet, the Canary-winged is now the predominant parakeet.

Visitors to southern Florida interested in observing these birds are urged to visit Coral Gables, Coco Plum and the grounds of the Baptist Hospital. During a casual saunter through the latter, I have seen hundreds of these birds flying from tree to tree. It can be difficult to see them when they are feeding in the trees, as their plumage blends with the foliage; even when they are calling, as is typical of these birds, locating their precise whereabouts is not easy.

Both these parakeets originate from South America, and in addition to the introduced populations in southern Florida, are also established in California and Puerto Rico. In South America the White-winged inhabits riparian woodland, pantanal, savannah, forest, cultivated gardens and parks. Its diet is composed principally of fruit seeds; the bare skin at the base of the bill seems to be an adaptation for this diet, keeping sticky fruit from coming in contact with the feathers.

The Canary-winged Parakeet, which ranges as far south as Paraguay and northern Argentina, has similar biological requirements to the White-winged. The bare skin at the base of the bill is not as extensive and would suggest that its diet contains fewer wet, mushy fruits, but this is not borne out by field studies in Miami and South America.

In South America I have only ever seen them nesting in arboreal termitarium. Here in Florida both prefer Date *Phoenix dactylifera* and Canary Island Palms *P. canariensis*. Typically there is a 30cm-60cm (approx. 1ft-2ft) long tunnel at the end of which is the nesting chamber. It is not uncommon for it to have multiple entrances. Typically family parties can be seen nesting in the same tree; intruders are quickly banished but young from the previous year will remain with their parents during the first year and act as helpers and subsequently nest in a cavity of their own. Nesting occurs very early in the year. I have seen young with pin-feathers in February; by contrast feral macaws and Amazons in southern Florida nest between March-April.

Both parakeets have long been regarded as conspecific (see Forshaw, 1989). I am though amongst those who believe they are sufficiently distinct to justify full species status, especially given that when the two meet they do not hybridize. If they were conspecific they would hybridize, which is one of the criteria used by taxonomists to grant a taxa subspecies status. Even the feral populations in Miami remain segregated. A trapper who regularly collects chicks from the feral populations told me that he has never seen hybrids. I have likewise never observed mixed pairs, nor even flocks of the two actively interacting. Only once have I seen them in the same tree,

and on that occasion they remained separated as if there was a barrier between them. The same intermixing that one sees amongst species of the genus *Amazona* is absent.

In order to better study the differences between the two I have carried out field observations. I have accompanied a trapper who regularly harvests from the wild populations. He relies on call birds and is never able to use one to trap the other. I also maintain both parakeets, which I house side by side in outdoor enclosures in order to make comparisons. These observations suggest that the two are very distinct. Though the White-winged would appear to be strictly frugivorous, I have found that it feeds principally on seeds; undoubtedly the bare skin at the base of the lower mandible allows the bird to penetrate deep into fruits to extract the seeds. In contrast, the Canary-winged is an avid consumer of fruit, even when possible consuming the peel; when this is not possible, it will clean out all of the pulp, as will a wasp, leaving just the thin outer skin. I have also noticed that the Canary-winged will defend its nest from potential intruders and will nest in tree cavities and the base of palms in which dead leaves remain. The White-winged is more selective, preferring cavities which meet its specific requirements. The Canary-winged is much fonder of water, immediately enjoying rain, whereas more than once I have seen White-winged hiding amongst foliage to avoid a downpour. There are also other dramatic differences between the two.

Studying parrots in the wild is not easy, especially in their native countries. Insects, poisonous snakes, plants with razor sharp leaves, the absence of roads and sleeping accommodation, along with other local conditions, make field work very difficult. The growing and changing feral parrot populations inhabit an environment in which it is easier to study these birds. Changes and adaptations seen here may well provide valuable insights into the lives of these species. For casual observers, visiting sunny Florida can provide a similar experience to spending weeks in the field in South America, but without the usual concerns and with a comfortable hotel room at night.

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THE AZURE-WINGED MAGPIE *Cyanopica cyanus* ANTHROPOMORPHIC AND CLIMATIC FACTORS IN ITS DISTRIBUTION

by Brian A. G. Hill

Natural History

My observations of Azure-winged Magpies during the summer of 2002, in Beijing, China - that August the venue for the 23rd International Ornithological Congress - showed them spending most of their time in the crowns of large trees, from which they made their presence known by their calling, whilst both in the trees and also when in flight, sometimes several together flying from one tree to another. Early in the morning, though a little later than the Tree Sparrows *Passer montanus*, they called from the tall poplar trees just across the street and directly opposite my window, probably whilst searching for insects and/or other invertebrates.

Their calls, the sibilant “*tschreee*” (Goodwin, 1986), their tone and utterances whilst well hidden in the canopy, sounded very like one of the calls of Golden Oriole *Oriolus oriolus* - but not of course its more familiar, beautifully imploring whistle. Not that I heard or saw Golden Oriole in Beijing, but I did wonder if there could be antagonism between them where both occur in China. Tall, mature poplar trees are favoured also by Golden Orioles.

In Beijing Azure-winged Magpies ranked second to Tree Sparrows, as the most frequently heard and seen birds. Magpies *Pica pica* and feral pigeons ranked joint third. There were few other birds. Only once did I see Azure-winged Magpies on the ground, that was on the lawn in the park of Beijing University. They were not feeding, just gathering there and were soon disturbed by too close an approach by people and traffic.

It was quite apparent from what I saw of this species in Beijing during the summer of 2002, that there it is a co-habitant of man, equivalent to those other Eurasian corvids - the Carrion Crow *Corvus corone corone*, Hooded Crow *C. c. cornix*, Rook *C. frugilegus*, Jackdaw *C. monedula*, Magpie *Pica pica* and Jay *Garrulus glandarius* - which have adapted to city life. It is able to subsist, if not actually nest (I was in Beijing when its nesting season had passed) even away from parks, wherever there are a few big trees, separated by no more than a few hundred metres (a few hundred yards) from the next lot of big trees, in streets and quadrangles which from mid-morning to late at night are much frequented by many people and vehicles. In the parks, some of which have controlled access it would, with plenty of cover and undisturbed, be able to nest.

Of the above corvids, in Beijing it was only the Azure-winged Magpie

and Magpie which were, quite apparently, co-inhabitants with the human population. Because there the only other corvid I saw was the Jungle Crow *C. macrorhynchos*. I heard it and then spotted it a few times high above the city. Only on one occasion, at Beihei Park near the city centre, did I see this corvid as low as the tree-tops, when I saw two resting on the roof-ridge of a traditional style building.

In winter the Azure-winged Magpie in Beijing may when searching for food have to behave very much like a European city inhabiting corvid, though in Beijing it will be competing, amongst other corvids, at most only with the Magpie. Or, it may disperse to the nearest rural areas, which are intensively cultivated. Alternatively it may migrate to Oriental China, that is the basin of the Yangtse-Kiang and further south. I would be interested to know, preferably based on first-hand experience, how the Azure-winged Magpie subsists during the long winter in Beijing. I think that the attitude towards it there is generally benign. I have been told by Chinese acquaintances that it is regarded as a "lucky bird", though I do not know enough yet of Chinese lore to know in which sense it is regarded as lucky.

Eurasian corvids are generally regarded as comparatively unpalatable, and I do not know of any country in which they are now taken much for eating.

It was hot most days for the two months, mid-July to mid-September 2002, I was in Beijing, though the sky was either completely overcast, or at best with just a scattering of blue breaks between the dense looking clouds. Several days there was heavy rain, each of many hours duration. Almost nowhere in urban but leafy Beijing did the soil look other than moist.

The Azure-winged Magpie evidently needs at least a goodly scattering of big trees, infested with insects and such-like invertebrates, in the humid warmth of spring and the heat of summer, in which to feed and nest. During the spring and summer, as I observed, its arboreal habits suggest it is then primarily an insectivore. However, because the Azure-winged Magpie is non-migratory, in the sense that there is no mass movement from Palearctic China - that part of the country north of the Yangtse-Kiang river, which is the major part of its range - southward into Oriental China, some major changes in its diet and foraging habits must occur, perhaps even before the brief Chinese autumn. As a corvid, this it can do, presumably then going on to eat more in the way of seeds, berries, fruits, nuts and such-like vegetable matter, both wild and discarded in a processed form by humans (Goodwin, 1986). I would like to make my own observations of it during the Chinese autumn and winter, or failing that get information from Chinese acquaintances, ornithological and otherwise.

It was evident from my observations in Beijing that the Azure-winged Magpie can cohabit with man in China, and presumably has throughout

China's history. Because of its familiarity with man and its ability to subsist alongside man, this bird would have been a suitable candidate for introduction, such as to Iberia (Spain and Portugal).

In Iberia

I saw the Azure-winged Magpie for the first time in the wild whilst driving through a stretch of typical Extremadura country in south-west Spain. I saw several, quite remote from any village. I saw small groups in flight, from one clump of trees to another, and heard their calls; as I would five years later in China.

Cooper and Voous (1999) displayed again the recent map compiled by Rufino, 1989 and Purroy, 1997 of the distribution of the Azure-winged Magpie in Iberia. It showed it to be distributed south of about 42°N and almost entirely west of longitude 4°W.

It is in accordance with my assessment of this species' need for the most humid as well as warmest country, especially in the spring and summer breeding season. Where are most of the main rivers in Iberia, and the humid influence of the Atlantic - not anywhere along the Ebro, the other major river, which however flows across the comparatively even drier, in summer, western Spain eastwards to its outfall in the Mediterranean. I did not see Azure-winged Magpies in Madrid. Not in the Parque de Retiro, with its lake and magnificent stands of various deciduous trees, nor in the much more extensive Casa de Campo, huge as parks go, and seemingly good habitat.

Had the Azure-winged Magpie been introduced into Iberia, surely the core of its population then and even now, could reasonably be expected to have very similar habits and occupy equivalent habitat, in association with man, to that which it does in China, at least from what I saw of it in Beijing.

So, to reiterate, in south-west Iberia I saw it in country remote from villages, but failed to find it even in Madrid's extensive parks, which had what appeared to be ample good habitat. The general characteristics of introduced birds have recently been described (Goodwin, 2002 & pers. comm.). Suffice to say here that the Azure-winged Magpie in Iberia does not show those characteristics of behaviour and distribution consistent with it having been introduced there.

There is for example - albeit just within the past 30-35 years - the introduction of the House Crow *C. splendens* at Durban, South Africa (McLachlan & Liversidge, 1978). Even if the House Crow has by now spread beyond Durban - in addition to frequenting that city, not instead of - it presumably will be in territory in which there is not insuperable hostility towards it from indigenous predators, including man.

Distribution of the Azure-winged Magpie in relation to the climate

The present huge geographical disjunction in the distribution of the Azure-winged Magpie has long been well known. Perhaps less well known to those interested in this species' world distribution, but not having been fortunate enough to have made even brief visits to both Iberia and China, as I have, are the marked differences in the climate of the two, even when comparing just that part of its range in China, in Beijing and its environs, with, for example, Barcelona and Madrid, all of which are at about the same latitude, 40°N.

Mediterranean countries, most relevantly Iberia, present to the casual visitor (the holidaymaker) in summer a parched appearance (Compared to northern Europe, i.e. north of about 45°N dry-bulb air temperature means and extremes during May-October are much higher, consequent on the higher insolation.). Though actually relative humidity is not low, as measurable by comparing the wet-bulb air temperature to that of the dry, then referring to tables or a nomogram.

However, precipitation in summer is meagre: typically as brief lightning and thunderstorms, punctuating many days - for several weeks some summers - of scorchingly hot weather. There is very little precipitation as dew. The Iberian winter may have days of extremely low temperatures, cold and dry or cold and wet, depending on the location and altitude, but typically mild and wet, at least in lowland Iberia, which is the part most relevant here.

The climate of south-west Iberia is very different from that of the parts of China over which the Azure-winged Magpie now ranges (Goodwin, 1986), though in extreme northern and western parts of its range, viz. Transbaikalia and Mongolia perhaps less so than in southern and eastern parts. Overall the summer is long, hot and humid, being more hot and humid towards the south, than in the Amur basin, the northern limit of the Azure-winged Magpie's range. A more emphatic disparity occurs of course in the winter: Manchuria having a very cold winter, with not much precipitation, and as snow rather than rain. Winter in the extreme south is no more severe than cool. The Azure-winged Magpie's "northern limit nowhere crosses the July isotherm of 68°F" (Voous, 1960).

Now, only extreme north-west Iberia is possibly just a bit cooler than the 68°F July isotherm, so it seems that the lower humidity in summer at present, compared with China in summer at present, is the factor which has restricted the Azure-winged Magpie to only a fraction of Iberia that has adequate tree cover for it.

Since prehistoric times the humidity, though not the heat, has declined to account for the disjunction. Only at present in south-west Iberia is there enough humidity, and even there the climate is sub-optimal. Hence at present there is a population which lacks the dynamics to extend its range even into

apparently suitable habitat more generally in Iberia.

I have yet to experience a typical Beijing winter, which is preceded, so I have been told, by a delightfully sunny though brief autumn. Heresay has it that the winter is long and cold but mostly dry. Such precipitation that does occur is in the form of snow rather than rain. So, there is not only geographic disjunction but also the equally abrupt disparity in the climate of lowland Iberia and lowland China. The climate disparity also would not, of itself, be insuperable to the Azure-winged Magpie having been introduced to Iberia hypothesis.

There is the example cited earlier of the House Crow in Durban. Although by the Indian Ocean, Durban is south of the equator, whereas all of the Indian subcontinent is north of it. Hence the climates of the two although having much in common, such as overall heat and humidity, are out of phase.

Had the Azure-winged Magpie been treated by the expatriate Portuguese and Chinese in anyway comparable to that of the expatriate (presumably essentially Hindu) Indians in European-African Durban in their treatment of the there introduced House Crow, surely as a fellow corvid it would have shown similar adaptation.

Cooper & Voous (1999) in their review of the literature, most pertinently that of Iberian authors, apparently did not find any reference to the Azure-winged Magpie being a frequent and familiar bird in Iberian city parks, as it now is in China, at least in urban but leafy Beijing, as witnessed by me in the summer of 2002.

The above paper contains skilfully taken photos by Kevin Carlson in Portugal in May 1988, compared alongside those taken by Colin Bradshaw in China in May 1993 and by T. Ishi in Japan (undated), which show the Chinese form to be paler overall than the Iberian form, and also to have whitish tips to its tail feathers, which the Iberian form lacks. Although not much of a morphological difference, it is noticeable in the field, to anyone - such as me - who has seen both forms in the wild. The photos show-off the restrained beauty of this bird.

This morphological difference would not be incompatible with the introduction hypothesis (Goodwin, 1986). The citation given by Goodwin for the Azure-winged Magpie was Pallas, P. S. 1776, *Reisen durch verschiedene Provinzen des Russischen Reiches*, 3, p.694. According to the account given by Stresemann (1975), Pallas' expedition of 1768-1774 was from St Petersburg and travelled east to somewhere between Lake Baikal and Ulan Bator, Mongolia, nowhere going much south of 50°N. So, presumably the type specimen is of a Russian form, but I have yet to discover from precisely where.

Cooper & Voous (1999) in their review of the literature could find no reference to documentary evidence that the Azure-winged Magpie was in

fact introduced to Iberia, supposedly “by sixteenth-century Portuguese sailors returning from voyages in the Far East”. Nor was an earlier review (Goodwin, 1986) able to quote such evidence.

Yet the Azure-winged Magpie could have been introduced to Iberia in the sixteenth century. It was an era during which the Turkey *Meleagris gallopavo*, 1525-1530, and the Muscovy Duck *Cairina moschata*, about 1540, had been introduced from Central and South America respectively (*Gallus gallus*, destined to become the domestic chicken, had been introduced much earlier); and the outstandingly beautiful parrot *Amazona leucocephala* had been brought to Europe, “probably by Columbus into Barcelona, mid-April 1493” (Stresemann, 1975, an English translation from the original 1951 German edition).

The Portuguese made their first appearance at Canton in 1516 (Davis, 1857) and by 1557 Lisbon had a trading station on Macao (Moore et al. 1981). The Azure-winged Magpie is a bird that would have been suited to introduction to Iberia from China, and this could have been done even in the sixteenth century, despite the long distance involved and the length of time such a voyage would have taken. However, the bird’s current behaviour and distribution in Iberia do not support this. There is an hypothesis that it may have merely been a recitation of Henry Seebohm’s nineteenth century assertion that, because of the disjunction in its range, it was “simplest to assume the Azure-winged Magpie had been introduced into south Iberia”.

Paleontology

Fossilised bones believed to be of this species, found in a cave in Gibraltar (The current range map does not show the Azure-winged Magpie as occurring there now, nor even in the province of Cadiz, of which Gibraltar is geographically part of) and dated at least 44,000 years old cast doubt on the hypothesis that this bird was introduced to Iberia (Cooper, 1999, 2000). She also suggested that even then there was something symbiotic about the Azure-winged Magpie’s association with man in Iberia; and doubtless then also in China, from what I know so far (but hope to learn more) of its lore from Chinese acquaintances. These findings and analyses are consistent and supportive with those from the bird’s natural history.

Microbiology

According to Koon et al. (2003): “from the first molecular analysis of the Azure-winged Magpie, screening individuals (using museum specimens that were over 100 years old) and incorporating representatives of all currently recognised sub-species: the Iberian population is genetically distinct from all Asian forms at a basal position in the phylogenetic tree, indicating that the west European enclave (i.e. Iberian form) is indigenous there.” Again,

these analyses are consistent with and supportive of those from the bird's natural history.

Nomenclature

Their recent paper (Koon et al. 2002) and an article in *World Birdwatch* (Vol.24, No.4) went on to recommend that the two populations could be treated as separate species, with the Asian population remaining as *C. cyana* (sic) and the European population becoming *C. cooki*, with the suggested English name of Iberian Magpie.

Unless it can be shown that the Iberian and Far Eastern forms are significantly different in their vocalizations, behaviour and ecology, I would not go along with these recommendations. That would mean to alternate from one extreme - the Azure-winged Magpie in Iberia being regarded as having been merely shipped-in within historical times and thereby liable to having an extermination campaign whipped-up against it - to being given full specific status. I would suggest that until more comparative data is assembled, that the present use of trinomials remains appropriate, though I would prefer it if the trinomial indicated the range of the subspecies. At least two of its vernacular names, Azure-winged Magpie and *Blauelster*, reflect its appearance as does its scientific name. Any change would be confusing and even silly and, in my view, unnecessary.

Past climates and past distribution

I envisage a scenario emerging from this work and earlier conjecture (Goodwin, 1986), whereby following the Pleistocene glaciations the Magpie recovered its range much more readily than the Azure-winged Magpie. Because the former is and presumably always was a corvid that inhabited the sort of country which would emerge after such glaciation, viz. extensive open tracts of land, with the merest scattering of trees and bushes sufficing for roosting and in which to lodge its domed nests, different from the open nests of the colonial nesting Azure-winged Magpie which, according to Voous (1960), ranges as far north as the 50° July isotherm. However, in the latitudinal belt which contains the present range of the Azure-winged Magpie there was then the warm-hot, humid spring and summer it seems to need. Since then the humidity, though not the heat, has declined to account for the disjunction.

Summary

We can now say with a high degree of confidence that the Azure-winged Magpie was not introduced to Iberia from China by man. There is though a further outstanding problem, viz. to show that in prehistoric times intermediate longitudinal zones in the latitudinal belt suitable for the Azure-winged Magpie became too dry in spring and summer, hence this is why

there is now such a vast disjunction in the world distribution of the Azure-winged Magpie. Its solution will require the combined efforts of paleoclimatologists zoogeographers, ornithologists and aviculturists.

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BREEDING THE YELLOW-BELLIED SEEDEATER

Sporophila nigricollis

by Robin Restall

The Yellow-bellied Seedeater *Sporophila nigricollis* is a small finch that is widespread throughout most of Central America, the Lesser Antilles of the West Indies, and South America east of the Andes and south to northernmost Argentina. The male is unmistakable, it has the entire head black, the upperparts are olive-green and it is pale yellow below. It is a cheerful songster, but does not have a sufficiently powerful voice to make it attractive to the bird trappers, and so is seldom kept in cages in South America. Also, being common and comparatively easy to catch, it is of low commercial value, which also demeans it in the eyes of the trappers. The female is an attractive, greenish-olive above and a pale, buffy-yellowish below and has a horn-coloured bill.

It is normally a resident, particularly in riparian and marshy areas that are wet all year round. It is very responsive to periods of extended drought, when the grasses drop their seeds and die. When this happens it will wander and follow trails and clearings through woodland up to the subtropical zone. I have found it on grassy trails along the Cordillera del Norte of Venezuela at a higher altitude than any other *Sporophila* spp. It has been recorded up to 2,300m (approx. 7,500ft). I have usually found it in smallholdings and truck gardens, and it may often be found in areas that were once cultivated but which have become overgrown with grasses, especially the tall Guinea Grass *Panicum maximus*.

Yellow-bellied Seedeaters are usually encountered in pairs or small groups. The presence of a single adult male with several females in these groups suggests they are family parties, but I have often seen such groups at the beginning of the breeding season. Also, most successful nestings seem to produce a single fledgling, occasionally two, and a group of six or more birds would obviously be more than a single family. As it may take immature males more than a year to moult into adult plumage, it is likely that these groups are composed of several pairs and some juveniles foraging together, with some males still in cryptic, intermediate plumage.

During a heavy downpour one August in Caracas I watched an irruption of flying ants. A considerable number of our garden birds, mostly Tropical Kingbirds *Tyrannus melancholicus*, Blue-grey Tanagers *Thraupis episcopus* and Black-faced Grassquits *Tiaris bicolor*, were hawking the insects with equal skill. What impressed me at the time was the unexpected appearance of at least a dozen (12) or more Yellow-bellied Seedeaters; at one time I thought there were 20 of them. They too were hawking the alates. While I

often see the odd individual passing through my garden, I had never seen a group as large as this. How did they know there was a irruption of flying ants there? I once saw a male in my Caracas garden hawk a small moth from the air.

They normally feed by clinging to stems and taking the seeds of grasses and sedges, buds and leaves. My observations show their preferred food is the half-ripe seeds of Guinea Grass. They will work their way along paths through gallery forest, feeding from clump to clump. I was watching them amongst low-growing weeds on a mountain path in the Henri Pittier National Park, when some individuals dropped to the ground and hopped about, apparently picking up something, but I was unable to identify what it was.

The contact call is a sharp slightly querulous chirp, and also a sweet, slightly rising note. The song is a short but sweet outburst of twittering rolling notes that for me are rather reminiscent of those of a small, wild European Serin *Serinus serinus*. It lasts about one and a quarter seconds (which may seem astonishingly short to those accustomed to the comparatively languid song of larger birds, but is pretty typical for this type of bird). The male in my aviary will fly up to its favourite song perch, raise its head to an angle of about 45° and immediately utter a burst of song. It will look around and then utter longer versions, though never of more than two seconds, often with the wings held slightly away from the body and occasionally with a slight quiver. During these longer performances the head is not raised but held at a normal angle. I once saw a full display. The pair was very excited about a nest site, and it seems that this was part of the site acceptance process. Both birds travelled at an angle up into the bush, then out again, returning by the same route. The male was perched for much of the time in a position where the female passed before and below him. He spread his wings wide and held them drooped or hooded, and his tail was raised slightly and spread. He sang the whole while at the female as she quickly passed up into the crown of the bush, whereupon he followed her. I was unable to see if copulation followed. This happened twice in quick succession, and while moving, the female also had her wings slightly open and fluttering, and her tail slightly cocked and slightly fanned.

In the wild, breeding begins about six weeks after the start of the rainy season, by which time the grasses have grown to a good height and have begun seeding. Here in northern Venezuela the rains usually begin in April, though it is not uncommon for them to begin earlier. From the size of the gonads of 27 adult males and 16 adult females noted on the labels of these specimens from Venezuela in the Phelps Ornithological Collection, birds are in breeding condition from May-October, with an apparent peak in June-August. One male in juvenile plumage, collected in June, had fully enlarged gonads.

In my experience, based on observations of several breedings in my aviary, it is apparently the female that selects the nest site, although there is no way of knowing whether the male had previously prospected it and indicated its desirability to the female. The site may be from about 1m (3ft 3in) to as high as 3m (9ft 9in) above the ground, and it is the female that starts to build the nest. The male will bring material and attempt to join in the building within an hour or so. Subsequently, both sexes gather and carry material to the site and both sexes participate in the construction of the nest. The finished nest is a deep cup made of grasses, reportedly lined with soft inflorescences and plant down but in the case of my birds, it was unlined. The nest looks quite flimsy, as do most *Sporophila* nests, but is surprisingly tough and durable. Nests in my aviary have withstood strong winds and very heavy rain, time and time again - often when there were eggs or nestlings inside. It is usually built in a small fork of twigs beneath a few leaves, but may be at the base of a palm leaf. In a detailed observation of a breeding in Panama (Alderton, 1961), the first few days, possibly even up to the first eight days of nest building, were spent binding gossamer threads of spiders' webs to the foundation of the nest before the first strands of fibre were put in place. This is undoubtedly why, despite looking frail, the nest is so well anchored and tough. It was found by French that the nest takes five to 12 days to build. In my aviary the nests have been built entirely of coconut fibre and have been bound by tying and rough knotting to the stems of a *Ficus* or a small bamboo. The four nests I have measured were 5cm (2in) across the cup and the inside of the cup was 5cm (2in) deep. They were invariably finished within a few days and the eggs were laid soon afterwards.

My aviary is attached to the house and goes right up to the roof. The floor of the aviary is 3.5m x 3.5m (approx. 11ft 6in x 11ft 6in) and has in the centre a shallow pond 1.5m x 1m (approx. 5ft x 3ft 3in). In the middle of the pond is a large tub containing a tall *F. benjamina* that reaches the roof. Half of the roof of the aviary is protected by the overhanging eaves of the house and plate glass over the mesh. The other half is open to the elements. The floor has heavy duty tiles and around the inside of the mesh sides is a row of *Phyllostachys aurea* bamboo and *F. benjamina* in tubs. These form a hedge that gives the birds some protection from wind and rain, and provide suitable sites for nesting.

The female of my pair first chose a plastic mesh canary nest cup that was attached to the wire, high up under the eaves of the house. She brooded the clutch, which I was unable to examine, for an incredible six weeks before abandoning it; the eggs being obviously infertile. During this time the male would perch nearby and chase away any bird that came near. He would sing frequently. Having deserted this nest, the female started prospecting for a new site and chose one in the top of the *Ficus*, only 1m (3ft 3in) from where

I sit and work at my computer, looking into the aviary. The female selected the site, and attempted to tie strands of grass to the stems. Having attempted this, she would then sit and wiggle as if she was moulding the nest cup, but the strands would fall away. The male came to this site with a strand or two, but did not attempt to build. This activity lasted a few days. The base of the nest was never formed.

The next day, May 12th, I saw the male flying into the *Ficus* much lower down. On examination, I found a nest partly built. The complete cup was constructed within three days and the female started sitting, so she must have laid almost immediately. Spiders' webs were not used to bind the threads. The nest was barely 5 cm (2 in) across and definitely 5 cm (2 in) deep. It looked really fragile. It was right up under the uppermost leaves of the *F. benjamina*, about 1.5m ((approx 5ft) above the ground. When sitting in it the female could not be seen.

The clutch usually consists of two, or occasionally three eggs. These are oval and the ground colour is off-white to buffy (pers. obs. in Venezuela, including in the case of this breeding), greenish-white (Alderton loc. cit.) or pale blue-green (ffrench loc. sit.). They are richly marked with a variety of spots, small blobs and whorls of dark browns that tend to form a halo or cap at the wider end.

Only the female broods the eggs and nestlings, but both sexes feed the young. They are fed by regurgitation, but after a few days some food may be carried in the bill and fed directly. The diet consists of a mixture of small insects and soft seeds, normally the half-ripe seeds of Guinea Grass. The nestlings normally fledge at between eight and 10 days. In this case, two eggs hatched apparently on the ninth day, and the third simply disappeared. The nestlings were always silent, and even begged silently (in direct contrast to the noisy estrildid nestlings elsewhere). On two occasions I managed to photograph the two nestlings and on the seventh or eighth day, as I approached, a nestling rocketed out of the nest. I caught it, photographed it and tried to return it to the nest. I failed in this, of course! I never found the second chick. Both parents could be seen combing the leaves, particularly the undersides, and all along the metal frame of the aviary, looking for minute insects. I provided them with baby mealworms, but these were ignored. The nest was kept immaculately clean, and I never saw any faeces in or around the edge of it. Again in contrast with estrildid nests.

There were terrible downpours of rain during the day and night, and how the nest and its contents survived I cannot imagine. I watched the fledgling as it withstood a downpour a few days after it had fledged. It faced upwards into the rain, tightly hunched, and slowly edged up the inclined perch until an overhead leaf gave it some small respite from the drenching. I believe that as a result of these horrendous rainfalls the previous year, I



Young Yellow-bellied Seedeater seven or eight days after it left the nest possibly prematurely.



This photo taken 31 days after it left the nest shows the colouring of its underparts.



Another view of the same young bird which shows better the coloration of its upperparts.



Chick in nest beneath the uppermost leaves of a *Ficus benjamina*.

had lost fledglings from two subsequent broods of Black-faced Grassquits, and was prepared to lose this little mite, but it survived. I managed to track the bird every few days, and found it sitting quietly high in the *Ficus*, only a few inches (centimetres) below the roof of the aviary. It called frequently, but its penetrating “seep” was not at all easy to pinpoint. Yet again, in contrast to estrildid fledglings, whose chorus of chattering makes them really easy to find.

In Trinidad, after the nestlings fledged, ffrench (loc. cit.) cut the nest out of the shrub in which it had been built. The birds returned and started to build a new nest in the same location eight days later. I intended to collect the nest in my aviary, but two days after the nestling fledged, the nest had completely disappeared. Not a single fibre remained; the nest had obviously been cannibalized by other birds in the aviary for use in building their nests. Following the above breeding, the Yellow-bellied Seedeaters bred twice more, and on both occasions behaved almost identically from start to finish. In every case the nest was dismantled and presumably the materials were used elsewhere either by the same pair of Yellow-bellied Seedeaters, or other nest builders, or both.

The juvenile is very similar to the female except that it is slightly duller and not so yellowish below. By way of a footnote, in mid-September I caught the youngster from the first nest and banded it (ringed it) yellow-yellow, to distinguish it from the female which is banded pink on the right leg. The youngster was fat and healthy and quite vocal whilst I was holding it in my hand. Its belly was by then a rich creamy yellow, like that of the female, and was both brighter and richer in colour than that of any of the specimens in the Phelps Collection here in Caracas. There was no sign of any black feathering on the head, so it could well prove to be a female. However, it is not known how long it takes for a male to attain adult plumage, so assuming that one of the young birds is a male, I should be able to discover the answer.

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BREEDING THE RED-AND-YELLOW BARBET

Trachyphonus e. erythrocephalus

by Colin Scott

My pair of Red-and-Yellow Barbets arrived from North Cornwall Aviaries in early March 2003, a surprise 40th birthday present from my partner Pauline. The two birds were in good condition and after being kept in isolation for a couple of weeks in an unheated spare room were transferred to my bird room. There the two barbets remained until early summer when they were moved into an outdoor flight about 6ft 6in x 6ft 6in x 6ft 6in (2m x 2m x 2m). That year they showed no sign of breeding, although they were compatible and would often duet. After spending the winter back in the bird room they were moved to a new block of aviaries. Each of these measure 12ft long x 4ft wide x 6ft 6in high (approx. 3.6m long x 1.2m wide x 2m high), with access to an indoor area 4ft x 3ft x 3ft (approx. 1.2m x 1m x 1m). A small parakeet nest-box and feeding facilities were provided in the shelter.

Table 1. Food provided.

Fed daily	Fed frequently	Fed rarely
livefood	kiwi fruit	banana
apple	peach (tinned and fresh)	orange
pear	mango	pomegranate
tomato	fig	
soaked sultanas	apricot	
thawed (frozen) peas	cooked carrot	
thawed (frozen) sweetcorn	cooked swede	
grapes		

All the fruit was finely chopped. Banana and orange were eaten only after everything else had gone. Livefood consisted of mealworms, crickets (brown, black and banded) and waxworms. Spiders were also given and were hunted with relish. Also given daily were soaked Witte Molen low iron mynah pellets and Beaphar Universal food. A variety of food is always provided and I am surprised how little these birds eat. I feel that the Red-and-Yellow Barbet is generally an insectivorous species, whereas many other African barbets, such as the Bearded *Lybius dubius*, are mainly frugivorous but will take a few insects.

The inside of the nest-box measures 6in x 6in x 10in high (approx. 150mm x 150mm x 250mm high). There is a door in the back through which inspections can be carried out without the need to enter the aviary. The box quickly attains a very strong musty smell almost as soon as the eggs are



Fifteen days old.



Twenty-two day old young female, showing large black throat patch.



Twenty-eight day old young male (left), with black crown, and female (right), with black speckled red crown.



Adult male (left), young female (centre) and adult female (right).

laid. I have never noticed this smell on the birds themselves.

The first two eggs were discovered on June 1st 2004. No attempt at nest building had been made, other than a scrape in the shavings that had been provided. Both eggs were thrown out on June 5th. Just seven days later on June 12th, an inspection revealed four eggs. These felt cool to touch and two days later as they continued to feel cool and no incubation appeared to be taking place, two were removed and placed in an incubator. The next day, June 15th, the remaining two were removed. Three of the eggs were fertile and one of the second two to be removed pipped on the morning of June 25th, and hatched that evening after an incubation period of just 10 days. I gave the chick its first feed at 5.00am the next morning and then fed it every 1½ hours. The food consisted of the insides of waxworms. All went well until 3.00pm the next day when the chick died after knocking the scab off its naval and bleeding badly.

Meanwhile the parents were still busy and on June 24th laid the first of another four eggs. These are laid daily and incubation starts following the laying of the first egg, as a result of which all four chicks hatch on different days. The first chick hatched on July 8th and the other three hatched over the following days, thus giving an incubation period of 12 days. Subsequent clutches also hatched after an incubation period of 12 days. Although the softbill food and fruit continued to be provided fresh once a day, for the first 10 days the parents were almost totally insectivorous and were fed up to eight times a day with livefood. Each feed consisted of 10-15 waxworms, 30-35 small crickets and a few soft white-skinned mealworms. After a few days my mealworms started to pupate and so a lot of soft pupae were fed to the parents. These had the added bonus of not escaping from the flight. The livefood was first cooled in the fridge or freezer before being thrown into the outdoor flight where the parents would quickly hunt it down. After about 10 days the parents started feeding softfood to the chicks. At 12 days old the chicks were covered in pin-feathers and could be sexed. The pin-feathers on the forehead and crown of the two males showed black and those of the two females showed mainly red and less black.

The first chick fledged on August 3rd, with the other three following the next day. They were duller editions of their parents except that both sexes had a large black throat patch much larger than that of the adult male. The young and parents returned to the nest-box each evening to roost. The Red-and-Yellow Barbets are usually the first birds in my collection to roost each evening and are also the first up each morning. They have quite loud voices, which were particularly evident when both the adults and young joined in the chorus of what sounded not unlike "red and yellow, red and yellow, red and yellow...". On August 7th, three days after fledging, the young were heard joining in the adults' duet. Interestingly the parents had gone very

quiet for a few weeks before the eggs were laid, leading me to believe that they had gone out of breeding condition. This behaviour was also noted by M. D. England (1973), who that year was first to breed this species in the UK.

On August 9th the parents were seen mating, and on the 11th they had one egg. Again four eggs were laid but one was removed at 11 days as it was clear and had a crack in the shell; another egg disappeared. On the morning of August 26th it was noted that the male was becoming a little aggressive towards the young females and was reluctant to allow the young into the shelter. As bad weather was forecast for that night the decision was taken to remove the young. It was noted at that time that the females' black throat patches were beginning to change to red and in another week the black had gone completely; the males retained a small black throat patch. On August 28th the remaining two eggs were thrown out of the box. On September 2nd there was a fresh egg in the box and subsequently three more were laid, making up the usual clutch of four. Three of these hatched and the chicks, two males and a female, were reared. These fledged on September 14th, 15th and 16th and just five days later the female had started another clutch of four eggs. These proved to be infertile however, and the female showed no further signs of breeding.

Brief diary of events during 2004 breeding season.

June 1st	Two eggs.
June 5th	Eggs thrown out.
June 12th	Four more eggs.
June 15th	Eggs removed to incubator.
June 24th	One egg (three more over next three days).
July 8th	First chick hatched (three more over next three days).
August 3rd	First chick fledged at 26 days old.
August 4th	Remaining three chicks fledged.
August 11th	One egg (three more over next three days).
August 28th	Last two eggs thrown out.
September 2nd	One egg (three more over next three days).
September 18th	Two chicks hatched.
September 19th	Third chick hatched.
October 14th	First chick fledged (remaining two fledged over next two days).
October 21st	First of four eggs laid; all proved to be infertile.

Over the course of the breeding season 22 eggs were laid, seven of which hatched and all seven chicks were reared by the parents. The chick hatched in an incubator failed to survive.

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THE BLUE-SPOTTED WOOD DOVE *Turtur afer* IN FIELD AND AVIARY

by Neville Brickell

The Blue-spotted Wood Dove may also be known as the Red-billed Blue-spotted Wood Dove, Blue-spotted Dove, Red-billed Wood Dove, Metallic-spotted Wood Dove or Sapphire-spotted Dove.

Introduction

Butler (1910) thought “it was in 1903” that he had purchased what purported to be a pair of Emerald Doves (= Emerald-spotted Wood Doves *T. chalcospilos*), the male being the present species and the reputed female, which proved to be also a male, being *T. chalcospilos*. The latter species was first bred in the UK at London Zoo in 1886. Butler wrote: “The London Zoological Society purchased two pairs and received a third pair on deposit in 1866; in 1886 and again in 1887 a specimen was bred in the Gardens...”.

According to Rutgers & Norris (1970) the Blue-spotted Wood Dove reached captivity in 1845, in which year several pairs were imported by Amsterdam Zoological Gardens. They stated it was bred in the Jardin d’Acclimation in Paris as early as 1872, and in London in 1886, in addition to which Mr Blaauw had considerable success with it in Holland during 1907-1908. Here in South Africa there are records of it having been bred by Pieter Viljoen and Chris Luther. It is now available locally at R750 (approx. £62.50 or US\$115) a pair. Interestingly, in Dave Coles’ *Breeding Records* (1986 & 2001) there is no record of the Blue-spotted Wood Dove having been bred in the UK. Presumably he could not substantiate the above breeding and took the view that the species bred in London in 1886, was in fact the Emerald-spotted species, bred at London Zoo that year.

Voice

Described by Rowan (1983) as “A series of soft coos in a mournful cadence”. “A few soft, well-spaced introductory coos leading into six to eight faster, even notes...” (Zimmerman et al. 1996) .

Description

This species measures up to about 22cm (approx. 8½in) in length. The sexes are alike. The upperparts are brown with metallic blue spots on some of the inner secondaries and wing coverts, and there are blackish bands across the lower back and rump, which can be seen most clearly when the bird flies. The forehead is pale grey, the breast is pinkish, fading to buffish,

*Neville Brickell*

This bird has yet to acquire the distinctive yellowish tipped bill.

then buffish-white on the abdomen and vent; the under tail-coverts, except for the outer ones, are black. The bill is red or purplish-red, with a yellowish tip. The juvenile is browner than the adult, with buff barring on the upperparts, smaller, duller spots on the wings and a dull brown bill.

Field characteristics

A fairly small, compact, brownish bird, with conspicuous transverse bands across the lower back and rump, and an area of rufous on the wings, which becomes evident when the bird flies. At close range its yellowish tipped, red or purplish-red bill, quickly distinguish it from the Emerald-spotted and Black-billed Wood Dove *T. abyssinicus*.

Distribution and status

Senegambia eastwards across central Africa to Ethiopia, southwards in the west through countries including Nigeria and Gabon to Angola, and in the east southwards through countries including Kenya, Tanzania, Malawi and Mozambique to the extreme north-east region of South Africa. It also occurs on Zanzibar and Pemba Island. It is a fairly common resident and a local migrant in the north of its range. *T. a. mearnsi* and *T. a. kilimensis* are no longer considered to be valid forms (Gibbs et al. 2001).

Habitat and general habits

Evergreen riparian fringing forest, secondary bush, mangroves, *Eucalyptus* plantations, cultivation, often around villages and in gardens. Usually singly or in pairs, only in small groups in good feeding areas, not in flocks (Gibbs et al. 2001). Generally inhabits moister habitats than the closely related Emerald-spotted and Black-billed Wood Doves, which favour drier habitats.

Feeding

Its staple diet in the wild consists of seeds of grasses, those of Castor Oil *Ricinus* and various herbs. It has also been observed feeding on ground that was no longer being cultivated but on which Cassava *Manihot* continued to grow. In addition it is known to consume small snails and alate termites (Rowan, 1983; Gibbs et al. 2001). In captivity it can be maintained on commercial seed mixtures (millets and mannas) for foreign finches and commercial mixtures (red sorghum, brown rice, tares, popcorn and lentils) for medium-sized species of dove. These can be supplemented with ripe and milky stage inflorescences of indigenous grasses (Konigkramer pers. comm.). South African Aviculturist's Diet Record Cards (ARU, ADRC) record Teff Grass *Eragrostis teff* and Giant Millet *Sorghum dochna*, and Chickweed *Stellaria media* as greenfood. Suitable livefood includes mound and alate termites. It should also be offered crushed limestone and/or cuttlefish bone and crushed egg shell.

Breeding

It has been recorded breeding in every month of the year (Gibbs et al. 2001). The nest is placed 1m-3m (approx. 3ft 3in-9ft 9in) above the ground on a horizontal fork of a large tree such as the Mango *Mangifera indica*, an introduced exotic from India, a leafy tree stump or a sturdy bush on the edge of a forest. Pairs may sometimes make use of a discarded nest of another species as the foundation. There are at least two reports of pairs having utilised discarded thrushes' nests.

The nest is loosely constructed from available twigs and plant stems and may eventually vary from 8cm-20cm (approx. 3¹/₄in-7³/₄in) in diameter. In captivity some pairs will accept artificial nest sites while others prefer to

construct their own nests in plant life provided in the aviary. Non-aviary bred pairs in particular often find it difficult to accept nesting receptacles such as shallow wooden trays, with raised sides about 6cm (approx. 2¹/₄in) high to prevent nestlings falling out, attached to a wall of the aviary shelter. In captivity, nesting materials, to name just a few, have included pine needles, dried Teff Grass, moss and lucerne stalks.

A clutch of two pure white or creamy white smooth-shelled eggs measuring about 23mm x 18mm are laid and are incubated for it has variously been reported 13 or 15-17 days (in captivity 16-17 days). Both parents share the feeding duties and the nestlings have variously been reported as fledging at 13-14 days or 15-18 days (in captivity 16-18 days or 13-15 days due to disturbances by other species). Early departures from the nest are often fatal if young are left without protection during thunderstorms in the summer months. Fortunately most such nestlings are removed from the ground by their owners and returned to the nest before nightfall.

Hybrids

Hybrids between this species and the Emerald-spotted Wood Dove are fertile (Thomson pers. comm.), whereas hybrids between this species and the Tambourine Dove *T. tympanistris* are infertile according to Grey (1958).

Parasites

Zumt (in Rowan, 1983) listed six ectoparasites which have been found on this species, namely *Megninia columbae*, *Falculifer cameronensis*, *Plerophagus monatrichus*, *P. similis*, *Nitzschiella turturis* and *Pseudolynchia canariensis*.

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THE WHITE-HEADED MOUSEBIRD *Colius leucocephalus* AND ITS BREEDING IN CAPTIVITY

by Herbert Schifter

The mousebirds (Coliidae) are a family of birds with very peculiar habits and behaviour, that are not closely related to any other birds and are restricted to Africa south of the Sahara. In the past they were not very popular in captivity and breeding successes were quite rare.



Courtesy of Dennis Pate

The longest lived of the 1990 specimens at Washington Park Zoo, Portland,
Oregon.

The Speckled Mousebird *Colius striatus* was bred in captivity for the first time in Britain in 1912. H. B. Wilson was successful on that occasion and G. H. Gurney was successful in 1914 (Hopkinson, 1926). The successful breeding of the Red-faced Mousebird *Urocolius indicus* (formerly *C. indicus*)



Courtesy of Dennis Pate

This bird was later sent to Sea World, Florida, and lived there until 2001.

in 1962 and again the following year I have already described in the *Avicultural Magazine* (Schifter, 1966). The breeding of other species has been reported in the meantime and lately mousebirds have become more popular (Davis, 2001).

The White-headed Mousebird *C. leucocephalus* is the least known of the six species. It is restricted to eastern Africa from southern Somalia, southwards through eastern Kenya to northern Tanzania. It was collected for the first time by the German explorer Gustav Adolf Fischer (1848-1886). He collected it on October 23rd 1878 at Kinakomba on the lower Tana River, Kenya, and it was named in 1879 by Anton Reichenow (1847-1941). The single specimen taken by Fischer is still kept in the Zoological Museum, Berlin, Germany. V. G. L. van Someren separated the birds from Northern Guaso Nyiro as *C. l. turneri* because of their more whitish or greyish crest, the somewhat darker barring on the neck and the smaller slightly reddish breast band. This subspecies is found only to the south-east of Lake Turkana, Kenya, from the Horr Valley and Marsabit south to Samburu and Shaba Game Reserves, the Northern Uaso Nyiro River and Isiolo District.

We met White-headed Mousebirds for the first time on July 21st 1973 north of Isiolo, north-east of Mt Kenya, where they were feeding on the yellow berries of a *Solanum*. On the same day and later on we observed a large family group near Samburu Lodge in the Samburu Game Reserve. The adult birds were accompanied by a smaller subadult with a greenish bill and much shorter tail; it was still being fed by the adult birds. We never saw them in the southern part of their range but did find birds of the nominate form in September 1974 on the lower Tana River near the type locality where a family group, together with Blue-naped Mousebirds *U. macrourus pulcher* and Speckled Mousebirds *C. s. mombassicus*, had been feeding on the fruits of *Salvadora* bushes. When disturbed the birds departed in different directions showing that they had gathered in the same bush only for the purpose of feeding and not mixing with the other species. Also in spite of the fact that it is a bird of the drier areas it does not seem to move far from water, unlike the free-moving Blue-naped species, and therefore is quite restricted in its distribution. It is no longer found in some areas where it was met with before and more recently has been observed several times in the Amboseli Game Reserve, otherwise its distribution has not changed much over the years.

The nest and eggs were found first by V. G. L. van Someren in August 1918 near the Taita Hills in south-eastern Kenya. Later on young birds were collected, mostly between February-August. Otherwise, not much is known about its breeding habits in the wild. Its behaviour is more similar to that of the Speckled Mousebird though it is usually much shyer and less inclined to approach human settlements than the Speckled Mousebird. In a

paper published quite a long time ago (Schifter, 1976) I summarized all that was known about it up until that time, and not much more has been learned in the meantime.

The White-headed Mousebird was unknown in aviculture until the 1970s when some were imported into the USA and possibly elsewhere. In 1990 some more were imported into the USA and Houston Zoo, Texas, acquired four of them from Bellbird, Inc. in Laguna Hills, California, a business that no longer exists. On May 5th 1990 one of the four was killed by a White-headed Buffalo Weaver *Dinemellia dinemelli* housed in the same aviary. Therefore the surviving three birds were moved to another aviary in a small building off public view. This aviary measured approximately 1.5m x 2.5m x 3m (about 5ft x 8ft x 10ft) and was furnished with a variety of natural perches. In March 1991 all three birds were observed spending time on top of a nest-box where one egg was laid. Therefore a nest-basket was placed on top of the nest-box and the egg was transferred to it. A few days later on March 15th the female was seen in the nest-basket and did not leave even when the keeper was cleaning the aviary. Two weeks later two chicks had hatched and were already approximately three and five days old; on April 1st a third chick hatched. On April 8th the first chick fledged and was seen clinging above the nest. April 13th the other two chicks fledged, when the third one to have hatched was only 13 days old. May 4th 1991 the whole group was moved to an exhibit in the tropical house. There two of the mousebirds died of acute bacterial septicaemia and after two more died on May 18th, the remaining two birds were transferred to the animal hospital for treatment. September 19th the surviving two birds were returned to the tropical house, where one of them died on January 4th 1993 and the decision was taken to euthanase the remaining bird due to suspected mycobacterial disease. I am very grateful to William Todd of Houston Zoo for all the details given above.

On January 9th 1990 Washington Park Zoo, Portland, Oregon, acquired some White-headed Mousebirds, only one of which was still alive by 1995. Later on, in 1998, Disney's Animal Kingdom in Florida kept three pairs and several chicks were hatched but unfortunately none of them were reared successfully (Todd per. comm. 1998). Later Rochelle Plassé, Zoological Manager at Disney's Animal Kingdom informed Sherry Branch that White-headed Mousebirds had been bred not only there but also at Sea World, Orlando, Florida (Branch in litt. 1999). The last surviving specimen at Oregon was sent to Sea World in December 1999 and lived there until November 24th 2001, setting a longevity record in captivity of nearly 11 years for *C. leucocephalus*. The other specimens kept there and at Disney's Animal Kingdom had by then already died (Todd in litt. 2002).

In Europe Berlin Zoo received 10 specimens June 24th 1997 and this species bred there the following year. The birds were very secretive when it

came to nesting and nested in a nest-basket only 7cm ($2\frac{3}{4}$ in) in diameter. Two young hatched in August 1998. One died August 25th just before it was ready to leave the nest and the second fledged August 28th and was reared successfully. A youngster hatched in September 1998 died October 25th the same year. In June 1999 the White-headed Mousebirds bred again in a Yucca plant and two young fledged July 6th. At the time of leaving the nest they were much smaller than the adults, as is usual with all species of this family (Reinhard in litt. 1999). All this information was summarized by me in a paper published the following year (Schifter, 2000). In the same year two broods totalling five young were reared at Berlin Zoo (*Bongo* 31:136 (2001)). In 2001 the mousebirds bred twice and hatched four young (*Bongo* 32:106 (2002)). Afterwards the White-headed Mousebirds were transferred to another aviary, as they were being attacked by other inhabitants, this disturbed their breeding activities and no more breeding successes were reported. In 2003 four more White-headed Mousebirds were acquired by Berlin Zoo (*Bongo* 34:160 (2004)).

At the same time as the birds were received by Berlin Zoo in 1997, Jurong BirdPark, Singapore, also received 10 White-headed Mousebirds but I have no further information about them. Davis (2001) recorded that a very small number were imported into the USA in 2000 and 2001 but provided no other information except that "the author and a couple of other private aviculturists are now working with them to establish domestic bloodlines".

Postscript (September 13th 2004)

Very recently White-headed Mousebirds have again been imported into Germany and specimens correctly identified as belonging to this species have been acquired by Walter Fuchs a bird breeder living in Austria. So, it is to be hoped that this species will be bred in Austria before too long.

Acknowledgments

For the information on the breeding of this species I have to thank William 'Trey' Todd, Assistant Curator, Birds, Houston Zoo, Inc. and Dr Rudolf Reinhard, Berlin Zoo, and I have to thank Dennis Pate, General Curator, Oregon Zoo, USA, for supplying the accompanying photographs of the long-lived specimen taken at that zoo.

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Until his retirement Dr Schifter was Curator of Birds at the Museum of Natural History, Vienna, Austria. In the late 1960s he had articles published in the magazine about breeding the Red-faced, Blue-naped and Speckled Mousebirds, of which he bred more than 100 young.

In February 2005, Avicultural Society member Phil Cleeton advertised for sale a number of East African birds, including White-headed Mousebirds. It appears to be the first time this species has been imported into the UK. He imported 16, which originated from Tanzania, via Germany. He said that the males have much bolder heads and he thinks this species is the most attractive of all the mousebirds. Avicultural Society Vice President Raymond Sawyer obtained six and hopes to add this species to his long list of UK first breedings.

*Raymond also obtained a number of the other East African birds including Temminck's Courser *Cursorius temmincki*, Two-banded Courser *Rhinoptilus africanus*, Long-toed Lapwing *Vanellus crassirostris*, Kittlitz's Plover *Charadius pecuarius* and Three-banded Plover *C. tricolor*. - Ed.*

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AVICULTURAL MAGAZINE BACK ISSUES

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THE VULTURE RECOVERY PROGRAMME

by Nick Lindsay

Since the late 1990s field biologists in India, Pakistan and Nepal have been concerned about the decline in the numbers of three species of vulture, the White-backed *Gyps bengalensis*, the Long-billed *G. indicus* and the Slender-billed *G. tenuirostris*, which were becoming less numerous in all areas. By early 2000, literally millions of vultures had died, but the cause remained unknown. A coordinated effort involving scientists from the Bombay Natural History Society (BNHS), Zoological Society of London (ZSL), Royal Society for the Protection of Birds (RSPB) and The Peregrine Fund was undertaken with the aim of identifying the cause of this catastrophic mortality. The cause of the die-off was traced to diclofenac, a veterinary drug to which vultures are highly sensitive. A non-steroidal anti-inflammatory drug, it is used widely in south Asian countries to treat domestic cattle and buffalo for a variety of illnesses. During treatment, and for a short period afterwards, the tissues of the treated animals contain diclofenac, and if treated animals subsequently die during this time the carcasses can be toxic to vultures and have fatal consequences.

We estimate that more than 98% of the population of each of the above three species of vulture has died within the past 10 years at a rate of over 50% per annum. At this rate these species could be virtually extinct within five years. Although research into vulture mortality continues, the programme has moved forward with an aim in all three countries to establish breeding centres into which wild-caught vultures can be placed and breeding populations established. Vultures are known to do well in captivity and there is great confidence that the affected south Asian species will thrive in breeding centres, although the numbers required to ensure a viable population for the future presents considerable resource and expertise challenges.

An international meeting was held in February 2004 in India to devise an international recovery plan for the affected vulture species and to ensure that all the range states work together to avoid possible extinctions. Since then there has been considerable activity and signs are encouraging that plans will be well advanced for the coming breeding season.

Although getting the vultures into captivity and, therefore, away from the risk of contaminated carcasses is of the highest priority, finding a solution to the continuing use of diclofenac is also urgent. The sooner that this drug can be taken out of the system and replaced by one safe for vultures and other wildlife the sooner we will be able to consider releasing birds back into the wild. Diclofenac is a very effective and economical drug and is therefore widely used. As yet no suitable alternative is known, but work on this is ongoing.

Vultures play an extremely important role in the ecosystems of countries that support a huge population of cattle. Dead animals are left in the open for nature to take care of. Vultures strip the carcasses clean, removing potentially hazardous material from the environment. It has been found that when vultures do not carry out this important job there is a risk to public health. Following the catastrophic decline of vultures the number of feral dogs is increasing and, with this, there is an increased risk to humans of dog attacks and diseases such as rabies. The cleaned bones are collected for use in the production of fertiliser and this source of income has now been lost in many areas.

Andrew Cunningham, Head of Wildlife Epidemiology at the Zoological Society of London's Institute of Zoology, has been leading the society's involvement with the vulture programme. With funds from the Darwin Initiative, Andrew, with Dr Vibhu Prakash of the Bombay Natural History Society and the RSPB, constructed the Vulture Care Centre at Pinjore in the State of Haryana, north of Delhi. This centre, opened by Elliot Morley MP in February 2003, currently holds 38 vultures of two species - the White-backed and the Long-billed - many of which were brought in as sick birds and survived following successful treatment. These birds will form the nucleus of a population at the centre. Funds from ZSL, the RSBP and the National Birds of Prey Trust (NBPT) will enable the centre to be expanded with the construction of breeding aviaries, both to hold colonies of vultures (up to eight pairs in each) and single pairs. This work is only possible with the tremendous commitment of the Forestry Department in the State of Haryana working closely with the BNHS. This centre will also be the model for a further five or six centres in India, one in Nepal and possibly two in Pakistan.

The challenge is now to find sufficient birds to establish the founder population. Where vultures still occur they are very nervous of humans, which may be related to the reduced numbers now present at any one site. The capture of adult birds is going to prove difficult. The alternative is to take fledglings from nests, which is not an easy task as nests are often high above the ground in trees or on cliffs. There is also concern that chicks are dying in the nest as young as four weeks of age, presumably after being fed contaminated meat. This may force the collection of chicks at a younger age, making the rearing of the chicks more complex.

The aim is for each centre to hold 25 pairs of each appropriate species. In most cases this will mean a total of 50 pairs of two species depending on the centre's location in relation to the distribution of the three target species. We are working on a 10 year programme, but with a more realistic target of 15 or even 20 years. With vultures maturing at five years of age we hope the vultures in the breeding centres will increase and we are aiming to double the captive population over the next 10 years.

Each vulture breeding centre will have its own dedicated team, comprising a site manager, a veterinary officer and four or more staff who will work with the birds on a daily basis. The team of field biologists will increase the amount of time spent monitoring the remaining wild birds as it is hoped that some remnant populations will continue to survive. It is also important to monitor other species that may be vulnerable to the same problem. Each centre will require a considerable amount of food and the safest option may be to produce food for the vultures on site to ensure it is safe and of sufficient quality. All the centres will use local staff and the Pinjore Vulture Care Centre will be used as the training base for new staff. Not only does this provide an opportunity for ZSL staff to assist with the training, but also to develop their expertise, both in the training and in the management of vultures on this scale.

Andrew Cunningham has now received an Extension Grant from the Darwin Initiative which will enable further expansion at Pinjore as well as covering the costs for ongoing research and staffing costs for the next two years. ZSL is committed to supporting the Vulture Recovery Programme over at least the next two years during which time it will support the development of new centres in India and Nepal, working with the Bombay Natural History Society, the Department of National Parks and Wildlife Conservation in Nepal and Bird Conservation Nepal. The RSPB, NBPT and The Peregrine Fund are also committed to the programme in the long term, but more partners and funds are required if we are to meet the required scale of operation to ensure the survival of these species.

The above account is based closely on A Decade of Decline, The Vulture Recovery Programme by Nick Lindsay, Head of International Zoo Programmes, Zoological Society of London, published in Lifewatch (Autumn/Winter 2004, pp.10-11), the magazine for members and supporters of the Zoological Society of London, and is reproduced here by kind permission of ZSL.

Nick Lindsay reports that the signs for 2005 are very encouraging and they hope that good progress will be possible in India and Nepal, however, there is a real need for further funds to support this work. If you would like to make a donation to The Vulture Recovery Programme you can do so through the Zoological Society of London. Please contact Nick Lindsay, Whipsnade Wild Animal Park, Dunstable, Bedfordshire LU6 2LF, UK or e-mail:nick.lindsay@zsl.org.

THE RELATIONSHIP BETWEEN A CARRION CROW AND A MAGPIE

by Robin Restall

The notes by my old friend Derek Goodwin (2004) on interactions between Carrion Crows *Corvus corone* and Magpies *Pica pica* reminded me of my own experiences with these two species when I lived in Spain some 35 years ago. We lived in a house set within a walled garden in an old artists' colony on the northern outskirts of Madrid. I maintained an ever changing collection of birds, mostly locally caught and acquired from the Sunday morning bird market in the old part of town. The dealers there knew me as a regular visitor each week and I suspect that occasionally they would catch birds not normally saleable on the near certainty that I would buy them. After I had painted and analysed them, most of the birds I bought were subsequently released. One old couple in particular always had the most interesting birds, often broods of nestlings, and it was thanks to them that I hand-reared European Rollers *Coracias garrulus*, European Bee-eaters *Merops apiaster* and other species aviculturally totally new to me. On one of my sorties however, I returned home with a comparatively prosaic nestling Magpie.

Like most crows, it was easy to rear and a delightful creature that undoubtably thought it owned me. I would take it to the office each day in order to feed it on schedule. It was transported in a shoe box which had a small window cut out of it, that was large enough to allow it to poke its head through and not only call to me to demand to be fed, but to observe me as I went about my work. On one occasion I had to attend a business lunch and, fearful that the heat of the sun on the trunk (boot) of the car would cook the bird, I took the shoe box containing the bird into the restaurant and placed it beneath my chair. Towards the end of the meal we were alerted by a shriek of fear from a lady at a nearby table. There perched on the back of her chair and noisily demanding to be fed was the Magpie. I leapt into action and, moving as fast as I could, grabbed the bird and left the restaurant. Before the poor thing knew what was happening, I had thrust it into the trunk of the car and slammed the door closed. Upon my return to the restaurant I was applauded and presented with a glass of brandy as a reward. Nobody had realised it was my bird!

A few weeks before I had acquired the Magpie, a friend had come to my house with a shoe box (the same one) and pleaded with me to save the life of the poor bird in the box. It was a newly-fledged Carrion Crow that had been saved from a couple of dogs that had been attacking it. The bird, which at the time seemed unable to fly, had been cowering, with its beak open, between

the roots of a tree, as it faced the dogs. It walked around our garden and ran to be fed whenever it saw me. We used to sleep with our bedroom window open and the bird, which by then could fly, would fly up and roost on the window sill, facing indoors so that it could watch me. Each morning I arose at dawn and drove out of town to an area of marshland on which the grass grew tall and lush. There I was able to collect a hundred or so fairly inert - because of the cold - large grasshoppers. These were taken home and formed the morning feed for the Nightingales *Luscinia megarhynchos* and Azure-winged Magpies *Cyanopica cyanus* I was keeping at the time. As soon as I left the bedroom each morning to go downstairs, the crow would turn around so as to watch me as I went to the car and drove off to collect the grasshoppers. Upon my return, it would be waiting on the drive, and as soon as I climbed out of the car, it would run towards me, begging pitifully, like a starved and tragic orphan. I would give it a couple of fat grasshoppers, which it would gobble down, and then the third would be taken, at a run, to the base of a tree where it would be swiftly buried. The bird would then run back to me and once more plead pitifully to be fed. It was a great game to see whether I could get to the door of the house before the crow caught up with me again.

I soon found myself with two free-flying, hand-reared corvids in the garden. Both would wander away, but never went very far and never for more than a few hours at a time. Mostly they preferred to be on the ground in the garden. Each had a very distinctive personality. The Carrion Crow always roosted on the window sill. The Magpie slept in one of the trees. The morning grasshopper-begging routine with the Carrion Crow never changed. The Magpie was never seen on these occasions. It was during the day, especially at weekends when I was at home, that their interaction was most noticeable. The Magpie was a prankster, always playing with things, with people and with the crow. Playing with the crow was invariably a one-sided game for the crow never responded and was seemingly devoid of any sense of humour.

The crow would walk around sedately and with dignity. It never tired of begging and whatever it had scrounged would invariably be poorly hidden at the base of one of the trees near the front door of the house. The Magpie would follow the crow about, always keeping 1m (approx. 3ft) or so behind it. Then suddenly it would run at the crow and jump onto its back and, as the crow turned to face it, would jump off and run and hide behind a tree. The Magpie would peer out from behind the tree, first from one side and then from the other, and when it was apparent that the crow was not looking, the Magpie would run out and jump on its back again. If the crow's attention had been successfully diverted, that is to say, it had turned and walked back, the Magpie would run to where the crow had hidden its latest cache and

steal it. However, this behaviour was not always, it seemed, aimed at stealing the crow's food, at other times it seemed to be simply a form of play. The children would delight at the "catch me if you can" play of the two corvids.

In Spain there is an old saying, "*Cria cuarvos te sacan los ojos*", which loosely translated means, "Breed a crow and it will poke out your eyes". Obviously a neighbour believed this, for one morning the crow was not on the bedroom window sill and when I opened the gate to drive out, I found it had been laid out dead where I was sure to find it. Following this, I feared for the safety of the Magpie, and some weeks later when we left for a holiday in England, we took the Magpie with us and released it in Devon.

Until I read Derek's notes, I had always regarded the behaviour of the two corvids as having been friendly and playful. I now suspect that I was being more anthropomorphic in my interpretation and can now see that the Magpie might have been indulging in an intuitive attack behaviour that in the wild would have been reinforced by learning. The Carrion Crow's fairly indifferent response, but a reaction nevertheless, could have been equally genetic in origin but lacking any learned aspect that would have made it more vicious.

Reference

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BEALE PARK DAY

Dave Coles has written to say that four new aviaries have been opened at Beale Park. One houses African birds, another houses Australasian birds, a third houses birds from the Americas and the other houses birds from the Himalayas. Species on view in these aviaries include the Superb Starling *Spreo superbis*, Lemon Dove *Aplopelia larvata*, Black-headed Weaver *Ploceus cucullatus*, Bali Starling *Leucopsar rothschildi*, Mountain Peacock Pheasant *Polyplectron inopinatum*, Collared Hill Partridge *Arborophila gingica*, Pheasant Pigeon *Otidiphaps nobilis*, Wonga Pigeon *Leucosarcia melanoleuca*, Bare-faced *Columbina cyanopsis* and Black-winged Ground Dove *Metriopelia melanoptera* and Satyr Tragopan *Tragopan satyr*, plus several common species.

On production of a current issue of the *Avicultural Magazine*, members of the Avicultural Society will be admitted for the concessionary price of £3, on Beale Park Day, Sunday July 3rd.

THE SOCIETY'S VISIT TO BUSBRIDGE LAKES

by Philip Schofield

Last year the Avicultural Society's Spring Meeting was held at Busbridge Lakes, near Godalming, Surrey. Owned by Fleur Douetil, it is home to one of the more all-embracing waterfowl collections, holding lots of unexpected forms as well as all the usual ones. Most of the waterfowl are on three lakes, which flow into each other, each within its own enclosure.

A number of the 'difficult' Long-tailed Duck were in evidence on the elongated 'canal' lake by the house, together with a magnificent pair of Common Scoter which replace a deceased pair of the even more unusual Velvet Scoter that formerly thrived there. It is hoped that the Common Scoter will eventually breed, something the Velvet Scoter never quite managed. Long-tailed Ducks were also in evidence amongst the Eider and other species. A number of Goosanders, bred there the previous year, were still available to prospective purchasers. Current year-bred young birds on view included Black Swans, Egyptian Geese and Australian Shelduck. Black-necked Swans were incubating. In recent years, increasing numbers of waterfowl bred at Busbridge Lakes have been parent-reared, and this has now become the norm. Staff try to have one egg of each clutch in an incubator. When this starts to chip, the parent duck is confined to her nest until the brood has hatched. Mother and young are then removed to a rearing pen, where they are joined by the incubator-hatched young one. With species where the male assumes a parental role, he is placed in the rearing pen as well. These outdoor pens have running water and are partly roofed, with a heat lamp available under the covered end.

Among the more unusual waterfowl and few mutations on view were blonde Lesser Brazilian Teal. Brazilian Teal always seem to be a 'poor relation' to the more glamorous Ringed Teal in collections, and are never kept in anything like the same numbers. There have been times when the Lesser Brazilian Teal has lost out numerically to the more robust Greater Brazilian Teal, an aviculturally less desirable bird because it is more belligerent with other species.

Among the Mallard-type ducks, two subspecies of the Yellowbill, the Abyssinian as well as the more usual southern African form, were in evidence. The distinctions between subspecies are subtle and can be confusing. The Yellowbills I have are pure South African, as far as I can ascertain.

While it is not collection policy, in line with current UK legislation, to have exotic species free-flying, local feral Mandarin Ducks were much in evidence and a delight to see weaving in and out amongst the trees, as they came in to land on the water. Apparently they cause problems by laying

large clutches of eggs in the boxes intended for Goldeneye. Mallard, not being such compulsive hole-nesters, do not create this particular difficulty. A population of large Pike inhabiting the 'wild' lake pose a different problem in waterfowl propagation. Any ducklings whose parents evade the rearing pen system, and instead take them onto the open water, are liable to be snapped up by these ever-hungry fish.

Dusky and Richardson's Canada Geese were on view. The latter, small and pale, has never been as numerous in collections as the more popular, small and dark Cackling Canada Goose, and it was nice to see them given a place in the collection. From a very shaky position a few years ago, numbers of the medium-sized Dusky seem to have been rebuilt, but it still deserves to be more widely kept. The skies may be full of naturalised Atlantic Canada Geese, but this is no reason not to have the other subspecies in our collections. At Busbridge Lakes there is also a small group of Orinoco Geese. Numbers of this charming little shelgoose in UK collections fluctuate wildly according to breeding success (it is often prolific) and winter weather (it is not entirely cold hardy).

A large aviary housed what I heard described as "a constellation of Cockatiels". Every conceivable colour variety was represented and the impression was that the reason for them being there was to add variety to the collection; something different to look at for those bored with ducks. Groups of Archangel and Fantail Pigeons added further variety.

While not as comprehensive as the waterfowl collection, there is on display a good series of pheasants in attractively planted aviaries. I noted the following pheasants: Golden, Lady Amherst's, Reeves', Mikado, Silver, Swinhoe's, Nepal Kalji, Edwards', Grey Peacock and Sonnerat's Junglefowl. An apparently pure Red Junglefowl cock was running loose with some bantams, as were Blue Peafowl. A few years ago, such a group of relatively common aviary pheasants would have included Hume's and Elliot's. While showing us round, Fleur Douetil commented on the current difficulty of finding either species.

Pairs of Demoiselle and East African Crowned Cranes were loose in the waterfowl enclosure nearest the house. The former had bred, and we saw two young from the previous year, awaiting transfer to a new home.

Busbridge Lakes, which is 1½ miles from Godalming off the B2130 on the Hambledon Road, is open to the public on a limited number of days each year. Details can be accessed on the well laid out website - www.busbridgelakes.co.uk - which gives a good idea of two prominent non-avicultural aspects that I have not mentioned above, the mature plantings of often rare specimen trees and shrubs, which compliment follies, ornamental bridges and an ice house cut deep into a hillside. Further information is also available from Mrs Douetil, Busbridge Lakes Waterfowl & Gardens, Hambledon Road, Godalming, Surrey GU8 4AY. Tel/Fax:01483 421955.

BOOK REVIEW

BIRDS OF WESTERN AFRICA

Field Guide to the Birds of Western Africa by Nik Borrow and Ron Demey is described by its publisher Christopher Helm as a new field guide which uses the plates from the same publisher's *Birds of Western Africa*. Several of these have been reworked and improved according to the blurb on the back cover, while 10 are said on p.6 to be entirely new and a significant number have been amended. *Birds of Western Africa*, published in 2001, is a 800 plus page hardback, while the present title, the subject of this review, is a 512 page paperback which was published towards the end of last year.

Illustrated and briefly described are all species, some 1,304 including some potential species, recorded from western Africa, as well as some that have been claimed but whose occurrence still requires proof. There are six new species for western Africa, the Great Blue Heron, Ring-necked Duck, Sociable Lapwing, Greater Yellowlegs, Moussier's Redstart and Yellow-browed Warbler, not in the 2001 hardback, while the Nyanza Swift, Variable Indigobird and Eurasian Rock Bunting are missing from the present title, as they are no longer considered to occur there.

Western Africa, as defined for the purposes of this guide, comprises the 23 countries south of the Sahara, from Mauritania in the north-west, to Chad and the Central African Republic in the east, and Congo-Brazzaville in the south-east (but not the Democratic Republic of Congo, formerly Zaïre), as well as the Cape Verde and Gulf of Guinea islands. It is a huge chunk of Africa, which of course also includes bird-rich countries such as Senegal, Ghana, Nigeria, Cameroon and Gabon.

The species accounts are often very brief and are confined to identification, habitat and, unless the species is mainly silent or its voice is unimportant for identification purposes, there is a description of its call and song if it has one, at the end of which are the CD and track number on which they can be heard on Chappuis' 15 CD *African Bird Sounds* series.

Nowhere in the present volume does it seem to say whether Nik Borrow or Ron Demey, or both, painted the plates. To discover that all 148 colour plates were painted by Nik Borrow, I had to go to Mark Andrews' review of *Birds of Western Africa* in the *Bulletin of the African Bird Club* Vol.10, No.1, pp.38-39, March 2003. The plates, each of which are on the page facing the relevant text, are of a consistently high standard throughout.

I like the convenience of having the distribution map for each species on the same page as the relevant text and the colour plate on the facing page. However, such maps are often woefully small and to have done so in this guide would have been impracticable. I have to concede that having them

grouped together on the following or previous page as they are, means the maps are larger and therefore give a more accurate indication of the distribution of each species.

Although intended primarily for birdwatchers visiting the region and those resident there, *Field Guide to the Birds of Western Africa* will certainly be useful to aviculturists wishing to reach for a handy guide for identifying species from western Africa, many of which at present continue to be available to aviculturists. I would loved to have had this guide back in 1959 and 1960, when I stopped-off at Mauritania, Senegal and Guinea and then spent several months in Sierra Leone. Bannerman's two-volume *The Birds of West and Equatorial Africa* (Oliver & Boyd, 1953) was far too bulky to carry about in the bush, besides which, although it was packed with information, very few of the birds were illustrated in colour, if at all, unlike the present guide which is both a convenient size to carry about and has every bird illustrated in colour.

Field Guide to the Birds of Western Africa by Nik Borrow and Ron Demey, *Helm Field Guides*, is published by Christopher Helm, an imprint of A & C Black Publishers Ltd., London. A paperback, it has 512 pages, 148 colour plates and 1,250 distribution maps. UK price £29.99.

Malcolm Ellis

DVD REVIEW

BIRDKEEPING THE SOUTH AFRICAN WAY THE FINCHES OF AFRICA

Most of the video/DVD titles available seem to be aimed either at the pet bird market (those keeping talking parrots etc.) or have been produced on a tight budget and as a consequence have lower production values. This DVD, filmed by Eelco Meyjes and scripted and researched by Fred Barnicoat and Eelco Meyjes, rises above such shortcomings providing as it does useful, accurate information for the aviculturist combined with superb filming of the birds in a captive environment.

The DVD covers 70 species including waxbills, mannikins, whydahs, weavers, sparrows, serins and others. It provides information on their housing, breeding, feeding etc. together with a useful key and distribution maps, all accompanied by top quality film work which often includes females and eclipse plumages where appropriate. The parasitic species (whydahs and indigobirds or combassous) are introduced alongside their host species which is useful if breeding is to be attempted. The majority of species depicted are available outside South Africa and some of the ideas included have certainly got me thinking of ways to apply them in my own aviaries.

There is always a fear with productions from a particular location that much will not be relevant in other parts of the world, however, there is very little here that cannot be applied or adapted to UK aviculture, or, presumably aviculture in the rest of the world, although here in the UK we cannot match the wonderful South African climate and particularly the availability of termites as livefood. The only problem I found was the lack of scientific names which would be useful when the names used on the DVD are different to those used here.

Birdkeeping the South African Way, Part 2, The Finches of Africa, has a running time of 58 minutes, is multizone format and is also available on video. The DVD is priced £18 (US\$34) and the video £15 (US\$28). The video is available only in PAL format. Prices are inclusive of p & p. Part 1 of the series is available only on video and gives an introduction to aviculture in South Africa with footage of aviaries and private collections. Part 3, which is in production, will cover non-native finches in South African aviculture. All purchases can be made by means of a postal order sent to Birds of a Feather, PO Box 782403, Sandton 2146, South Africa or alternatively can be purchased online by visiting the website: www.birdkeeping-the-sa-way.co.za

Paul Boulden

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NEWS & VIEWS

LITTLE KNOWN AFRICAN BARBET

The latest *Bulletin of the African Bird Club* Vol.12, No.1, March 2005, included (pp.50-52) a profile by Claire Spottiswoode, Peter Leonard and Michael Mills of the Chaplin's Barbet *Lybius chaplini*, a little known African bird and the only bird species truly endemic to Zambia. To have described it as "black-and-white", was not entirely accurate, for it is bright red on the sides of the forehead back to and below the eyes, the wings look to be dark brown rather than black and the secondaries are edged with yellow. It measures 18cm-19cm (approx.7in-7½in) in length and looks to be closely related to the White-headed species *L. leucocephalus*. It is almost always found in open savannah with a scattering of trees. It is especially likely to be found where the Sycamore Fig *Ficus sycomorus* is plentiful. This barbet was first described in 1920 and was named after Sir Drummond Chaplin who was the Administrator of Southern Rhodesia (now Zimbabwe) at the time. Chaplin's Barbet is considered Near Threatened by BirdLife International.

SIGNIFICANT DISCOVERY IN CAMBODIA

Last year BirdLife International and the Wildlife Conservation Society (WCS) announced the discovery of a significant number of the highly threatened Slender-billed *Gyps tenuirostris* and White-backed Vultures *G. bengalensis* in Indochina. More than 120 birds were counted in Sien Pang District, north-eastern Cambodia, the largest gathering recorded in Indochina during the past 15 years.

Most significant was the sighting of at least 28 Slender-billed Vultures, the rarest of the Asian vultures. This was one of the highest numbers recorded anywhere in the species' range during recent years, and at least four times greater than the previous largest single count in Indochina.

Fortunately diclofenac appears to be rarely used in Cambodia, the greatest threats appear to be from a lack of available food, persecution through hunting, capture for the pet trade and for their perceived medicinal value.

A working group has been formed by BirdLife International, WCS, WWF, and the Ministries of Environment and Agriculture, Forestry and Fisheries of the Royal Government of Cambodia, with the aim of coordinating conservation activities and developing specific action and management strategies to protect vultures across northern Cambodia. BirdLife International and WCS believe that the immediate priorities are to ban the distribution and sale in Cambodia of veterinary medicines that contain diclofenac, the establishment of a monitoring programme to determine vulture population sizes and trends, and the protection and monitoring of breeding sites.

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NEW ARRIVALS AT WADDES DON

For much of last year the Aviary at Waddesdon Manor, near Aylesbury, Buckinghamshire, was hidden by scaffolding as a major restoration project took place. It is now resplendent in blue and gold, the gilding in homage to German Rococo pavilions that inspired its design.

New additions to the collection for 2005 include Fairy Bluebird *Irena puella*, Chestnut Thrush *Turdus rubrocanus*, Orange-headed Ground Thrush *Zoothera citrina*, Chestnut-capped Laughingthrush *Garrulax mitratus*, Omei Shan Liocichla *Liocichla omeiensis*, Amethyst Starling *Cinnyricinclus leucogaster*, Snowy-crowned Robin Chat *Cossypha niveicapilla*, Luzon Bleeding Heart Dove *Gallicolumba luzonica* and Crested Wood Partridge *Rollulus roulroul*.

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INCREASED INTEREST IN THE KEEPING OF SEABIRDS

Last year a pair of Common Guillemots *Uria aalge* incubated an egg and raised a chick at Rotterdam Zoo in the Netherlands. The zoo received 20 Common Guillemots and two Atlantic Puffins *Fratercula arctica* from a German breeder. A further four Common Guillemots arrived from Madrid Zoo. The Pacific Kittiwake *Rissa tridactyla pollicaris* also bred at Rotterdam Zoo, as did the King Penguin *Aptenodytes patagonica*. The zoo also received 10 Ruffs *Philomachus pugnax*, 10 Redshank *Tringa totanus* and three Lapwing *Vanellus vanellus* from Rheine Zoo, just over the border in Germany.

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GOLDEN KEA DISCOVERED

A so-called "Golden Kea" has been discovered living in the wild in Fiordland, South Island, New Zealand. It is not of course a new species but a rare colour form of the normal Kea *Nestor notabilis*. The plumage of the bird appears to be mainly yellow or slightly orangish-yellow, that is darker somewhat brownish or more orangish on the forehead and face, the ear-coverts are slightly greyish and there is orangish or reddish 'lacing' on the hindneck and to a lesser extent on the back and wing-coverts; the secondaries, except for the two innermost feathers, are a dull slightly greyish yellow and the primaries look to be mainly dull greyish-white. The cere looks quite light, the bill appears dark horn coloured and the toes look pinkish or light horn coloured.

The last time such a bird is said to have been reported was in 1896, and on that occasion it was shot and stuffed. The well-being of this bird is being treated as paramount and its whereabouts remains a secret that is known to only a few people, amongst whom are staff of the Department of Conservation.

The above information came from a cutting from a New Zealand newspaper, which included a large colour photo of the bird and was sent by Prof. J. R. (Bob) Hodges, a previous Hon. Editor of the *Avicultural Magazine* (1991-1993). Bob was in New Zealand again during February, March and April last year but unfortunately found little time for birdwatching. However he did spend one splendid day at Mount Bruce watching many Kaka *N. meridionalis*, some of which had been bred in aviaries there and liberated, coming into the centre for food. Bob also had an enjoyable afternoon in the Botanical Garden at Palmerston North inspecting several Blue Ducks *Hymenolaimus malacorhynchos* which had been bred there as part of a conservation project.

PARROTS AND PENGUINS

There were some notable breeding successes at Chester Zoo in 2004. Princess Parakeets *Polytelis alexandrae* bred there for the first time, Humboldt Penguins *Spheniscus humboldti* bred again and other notable successes included the breeding of the Blue-eyed Cockatoo *Cacatua ophthalmica*, Greater Vasa Parrot *Coracopsis vasa* and Derbyan Parakeet *Psittacula derbiana*. The Keas *Nestor notabilis* laid eggs that hatched but unfortunately the chicks failed to survive. Sadly this was also the case with one of the zoo's pairs of Hyacinth Macaws. Staff feel sure that both pairs will become successful parents in the future.

In *Zoo Life*, Spring 2005, Issue 21, p.5, Team Leader Andrew Woolham, a son of Frank Woolham, a former Hon. Editor of the *Avicultural Magazine* (1994-1995), also reported that the zoo's recently completed - Magnificent Macaws enclosure - now houses a spectacular mix of parrot species including Blue-throated Macaw *Ara glaucogularis*, Golden Conure *Guaruba guarouba*, Red-tailed Amazon *Amazona brasiliensis*, Blue-throated Conure *Pyrrhura cruentata* and Golden-capped Conure *Aratinga auricapilla*.

Following the demolition of the old parrot conservation centre, the construction of the new off-show breeding centre is well advanced and staff are looking forward to moving in the birds and participating in the future conservation of threatened species such as the Red-vented Cockatoo *C. haematuropygia* and Blue-throated Macaw.

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LOSS OF LAST KNOWN POO-ULI

The last known Poo-uli *Melamprosops phaeosoma*, a member of the Hawaiian Honeycreeper family, died November 26th 2004, barely 30 years after the species was discovered by college students in 1973. The bird, a male, that was missing one eye, died in captivity. Because he was growing old and was apparently doomed to a life without a mate, biologists and conservationists decided to capture him, in the hope that one or two other individuals then known to remain might also be captured, thus giving the species a chance to breed, and survive, in captivity. Sadly, however, despite arduous searching no others were found and it is probable that the Poo-uli is now extinct.



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