

Male Andean Cock of the Rock (Rupicola peruviana) at Zoo Wuppertal

## **BIRDS IN GERMANY**

Nine zoos in thirteen days, or If this is Thursday, it must be Krefeld!

Part I.

By Josef Lindholm, III, Senior Aviculturist, The Dallas World Aquarium Photography by Natalie Mashburn Lindholm

OR AMERICANS VISITING GERMAN ZOOS, the question could easily be where not to go and what not to see. In Abenteuer Zoo, aguide book to zoos in Germany, Austria and Switzerland (*Petzold & Sorge, 2007*), 454 German collections of living animals are described to varying degrees, and another 175 are simply listed—a total of 629 zoos, aquariums, bird parks, nature centers, butterfly houses, city park aviaries, safari parks, etc.

I made my first trip to Germany, for thirteen days, in April and May 2008, in the company of my wife, Natalie, who had been there once ten years before. Among the nine zoos we visited, I'm sure I saw well over 800 species and subspecies of birds, perhaps closer to a thousand, of which at least 110 were birds I had never seen in captivity before.

Before discussing the birds I saw in each collection, I think it would be useful to share some observations:

Always carry some small change. In many, but not all zoos, the restrooms (for both sexes) are managed by middle-aged women wearing white smocks, who expect the equivalent of about 50 cents if one avails oneself of their facility. They usually have a dish with a sign sitting by the door, but often keep watch on the

proceedings.

Zoos, especially the bigger ones, often have one or more restaurants that serve full-scale hot meals (usually cafeteria style, but sometimes with wait-staff). Although one comes across things like the Mexican restaurant at Frankfurt, the food is often very German. I enjoyed it—especially the soused (brinecured) herring in "House Wife Sauce", which I had at both the zoos in Berlin.

Eggs (the kind you eat) have bright orange yolks. They feed the chickens canthaxanthin. (It used to be ground-up beets)

If you see the word "beer" in menus, it means "berries". The beer you drink is spelled "bier".

Dandelions are not considered an eyesore. Rather, they are enjoyed as ornaments on meadows and lawns.

#### **Zoologischer Garten Frankfurt**

It's around a nine-hour non-stop flight to Frank-furt-am-Main from Dallas, over Arctic Canada, the south coast of Greenland, the United Kingdom and Holland. One can take the subway from the airport to the zoo, with, if memory serves, one change of trains.

At 101 species as of mid-2008, Frankfurt's bird collection is not comparatively large, but is very choice, and deservedly famous.

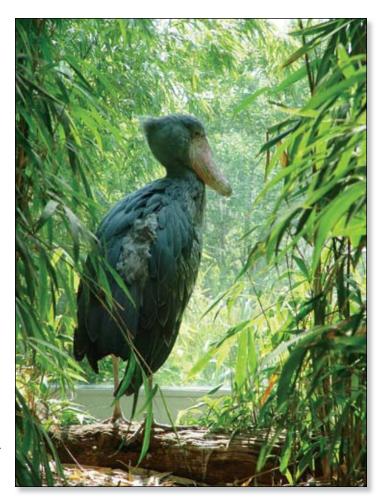
Established in 1858, and relocated to its present site in 1874, this 32-acre zoo is now surrounded by apartment buildings, churches and schools. During the Second World War, an anti-aircraft battery was installed on the zoo grounds, with the result that four fifths of the zoo and nine tenths of the animal collection were destroyed by allied bombing. Under the brilliant postwar administration of Dr. Bernhard Grzimek, reconstruction featured beautifully designed exhibits.

Among these was the Bird House. Opened in 1961, and little altered since then, it features spacious planted aviaries, which have always contained a choice collection. Over the last four decades, the number of species hatched in this building is startling, distinguished by many first breedings. A display case at one of the entrances lists these accomplishments by the year they first occurred.

One species, which has been bred only at Frankfurt, is the Gray-headed Bald Crow (*Picathartes oreas*), first hatched there in 1971. One, hatched in 1984, is the last member of its genus alive outside of Africa. (The other species of Picathartes, P. gymnocephalus, the White-necked Bald Crow, was also first hatched in captivity at Frankfurt, in 1965. The last captive specimen of that species, also hatched in 1984, was hatched and died at the San Antonio Zoo).

While the last living Picathartes outside of Africa, sharing a very large display with a Congo Peacock, may take pride of place among the inhabitant's of Frankfurt's Bird House, it shares it with a very distinguished collection. African monarch flycatchers have always been rare in captivity, but Frankfurt has kept and bred Brown-throated Wattle-eyes (Platysteira cyanea) for years. In one of the specially designed aquarium-like displays for aquatic birds, is a Little Grebe, hatched at the Dresden Zoo. There are a number of species managed in European Zoo consortia, such as the Bali Mynahs (currently breeding), Montserrat Oriole, and the Grayson's or Soccorro Dove (for which the European Associaiton of Zoos and Aquariums [EAZA] studbook is maintained by Frankfurt's Curator of Birds, Dr. Stefan Stadler). Among many other species are a Shoebill, a breeding group of Australasian Pied Herons (Hydranassa picata), Little Pied Cormorants, true wild Budgerigars (Shell Parakeets) from Zoo Koeln, Blue-winged Kookaburras, African Pygmy Kingfishers, Polillo Tarictic Horrnbills, Kikuyu White-eyes, Painted Finches, and Cuban Melodious Finches.

Although Red-whiskered Bulbuls have long been a traditional aviary bird, Frankfurt's flock of forty or so, in its famous free flight hall, is especially remarkable in that this species has bred almost continually there since 1964! This is especially significant in that a ban on the commercial importation of birds to member countries of the European Union has been in effect since



Shoebill (Balaeniceps rex) at Frankfurt Zoo

2007. While apparently most of the more than 100 specimens distributed among other European zoos are related in some way to Frankfurt's birds, the achievement of having created a captive-bred population of this size is especially to be commended in the face of this legislation. (While Red-whiskered Bulbuls were once common in American collections, the only U.S. zoo currently exhibiting any is in Honolulu, where the species is feral).

In an outside cage of the Bird House, Snowy Owls and Hawk Owls are kept together, and the Hawk Owls have bred. Nearby is the "Bird Thicket", a series of medium-sized walk-through aviaries. In late April, nights can still be very cold in Germany, so such species as the European Bee-eaters were still in off exhibit holding. However, there were already quiet a lot of birds on display, including European Rollers, Satyr Tragopans, and a flock of European Avocets (a sight I was to see repeated in a number of places). Other outdoor bird exhibits include Keas, Egyptian Vultures, Old World White Pelicans, and Red-crowned Cranes, and one was being prepared for Lammergeiers.

Two buildings largely devoted to other life forms held very interesting birds. When Frankfurt's famous Aquarium was reopened in 1957 as the Exotarium, it featured innovative combinations of birds and fishes. The "trout stream" included such European species as the Common Kingfisher. Today White Wagtails (*Motacilla alba*) dwell along the stream that empties into a pool

for native minnows. In the entry hall, the South American River was the first splitlevel aquarium to feature tropical fishes and birds together in one environment. Brazilian Scarlet Tanagers and Wattled Jacanas live there now, above an assortment of cichlids, characins, and turtles. At my visit, Jacanas hand-reared from eggs laid in this exhibit were displayed in the zoo's brooder room. On the other side of the entry hall is a large exhibit for Gentoo Penguins.

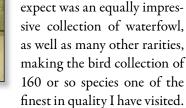
commenced here in 1980.



Exhibits in Zoo Wuppertal's bird house have unique stone backgrounds.

The Grzimekhaus, opened in 1978, is a bewilderingly huge small mammal house, with around fifty individual exhibits. Several birds are exhibited here as well. The first breeding of North Island Brown Kiwis in Europe took place here in 1987. There is a display for Tawny Frogmouths. White-faced Scops Owls are kept with the Aardvarks. This building is also the home of a remarkable colony of rarely exhibited Social Weavers (Phitlerairus socius), whose enormous compound nest dominates an exhibit shared by South African Ground Squirrels. Like Frankfurt's Red-whiskered Bubluls, this flock is a remarkable achievement in long-term passerine aviculture, as several generations have been produced since breeding





**Zoo Wuppertal** 

FOR THE LAST THIRTY

YEARS the Wuppertal Zoo

has done amazing things with

softbilled birds, and main-

tains one of the finest collec-

tions anywhere. As softbills

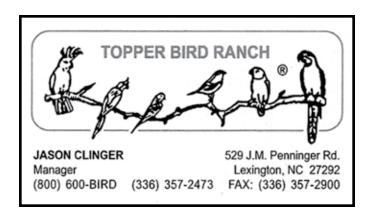
are a particular interest of

mine, Wuppertal was a natu-

ral destination. What I did not

With the exception of Tierpark Berlin (where a "mountain" was built over rubble from WWII) the other German zoos I visited were on level ground. In contrast, Wuppertal's zoo is situated on a hillside, creating a rather alpine atmosphere. Opened in 1881, this 59 acre zoo is located by a quiet neighborhood of beautiful houses, which are not apparent beyond the zoo's entrance. There is a "zoo" train station, and animal-patterned pavement in the sidewalks guides one along the several block walk to the zoo.

The birdhouse includes both indoor and outdoor exhibits, as well as a large, sloping, indoor walk-through aviary devoted to birds of the New World Tropics. Opened in 1993, this aviary has been the site of remarkable breeding successes. The biggest surprise











The Safest Cages and Avian Products Available

## **Revolutionary New Aluminum Travel Cages**



- No more chipping. no more rust
- Will outlast any powder-coated cage on the market
- Easy assembly: no nuts or bolts
- Patented front door lock
- Lightweight: only 17 lbs
- · Easy to disinfect
- · Complete knockdown
- · Swing out food and water cups
- · Sliding grill and tray

### **Pluck No More**

Stops feather plucking



- Recommended by top avian certified vets
- · Promotes re-growth of feathers
- · All natural homeopathic remedy
- · Manufactured in an FDA registered facility
- · Also great for dog and cat hot spots

Only \$34.99 UPS included!



#### Gets rid of parrot odor

- . Use with Pluck No More
- · Formulated to gently cleanse dirt and debris from your bird's skin and feathers
- Helps remove lice and mites \$15.00 / 17 oz.

#### **Beautiful, Safe and Durable Aviaries**



#### Great cages for breeding!

Features:

- · 1 inch bar spacing
- Patented bird proof front door locks
- · Nest box door opening
- · Completely knockdown
- · Perfect for multiple birds or larger parrots

View a huge selection of cages, supplies and accessories at kingscages.com



No Dust -

No Bugs!



#### Scientifically tailored ( Versele-Laga ) food for your bird's optimum health



## **Finest European Nestling Food**



- · Gold Patee is a ready-to-use eggfood moistened with 100% pure and natural honey
- For large parakeets, parrots, macaws, cockatoos
- Promotes optimal growth & feathering



**Hawaiian Sweet Noodle Mix** 

Pasta plus yummy pieces of fruit, papaya, pineapple and raisins



**Exotic Nut Mix** A banquet of 6

kinds of whole nuts and fruits for larger parrots



**Exotic Fruit Mix** 

This colorful mixture of tropical fruits, vegetables and nuts will be a welcome change in the menu of your pet or breeding parrots



King's Cages International, LLC 866-777-7303 www.KingsCages.com

In NJ: 732-698-9800 Fax: 732-698-9806 375 Old Bridge Turnpike East Brunswick, New Jersey 08816 E-mail: info@kingscages.com

**DEALER INQUIRIES WELCOME!** 

Only the Highest Quality Cages, Perches, Foods, Toys & Natural Remedies



Chinese Mergansers (Mergus squamatus) at Zoo Wuppertal

to me was a small flock of House Wrens. I had never before seen this U.S. native in captivity. (Wuppertal's were collected in Guatemala) They have been breeding there for years. I'm mot aware of anywhere else this has happened. Another U.S migratory bird I have never otherwise seen in captivity is the Vermillion Flycatcher (whose range extends to Argentina). These have also reproduced repeatedly in this exhibit, commencing more then ten years ago, a world first. Other species that have bred in this aviary include the Bare-throated Bellbird (the first, and so far only captive breedings anywhere), the Spangled Cotinga (the first complete success [Lindholm, 2007]), Swallow-tailed Manakins, Paradise Tanagers, and Pale-legged Ovenbirds. The distinctive clay nests of the ovenbirds were very much in evidence. From 1997 through 2005 a single pair produced 63 chicks (Schuerer, 2006), and I believe more have hatched since.

The walk-through aviary was closed to the public in late April, though I was privileged to be escorted through on different days by Dr. Ulrich Schuerer, the Director, and Curator Andre Stadler. There was a simple reason for this. The only female



The male of a breeding pair of White-tailed Trogons (*Trogon viridis*) at Zoo Wuppertal

Cock of the Rock to reproduce in a European Zoo had, as was its wont, nested right next to the entrance door. Through the end of 2007 five Andean Cocks of the Rock, all males, have been fully reared at Wuppertal, one parent-raised the others hand-raised. So far, to my knowledge, only seven collections worldwide have achieved complete success (*Lindholm*, 2007). A paper, in German, has just been published (*Schuerer & Rosner*, 2008) detailing Wuppertal's propagation of this species, as well

as another Wuppertal world first, the full rearing of a Purple-throated Fruit Crow (Querula purpurata) in 2006. A pair of Fruit Crows is maintained in a fairly small off exhibit aviary in the bird hose, and the breeding took place there. Their offspring is on display in one of the glass-fronted aviaries in the 1960 birdhouse. These twelve aviaries have distinctive limestone rear walls, which I have not seen elsewhere. I think this makes for an elegant presentation of their inhabitants. They include Jamaican Black-billed Amazons (Amazona agilis) (which have bred at Wuppertal); Palm Cockatoos (sharing their exhibit with Little Friarbirds (Philemon citreogularis)); Blue-faced Honey-eaters; A breeding pair of White-tailed Trogons; A female Guiana Red Cotinga (Phoenicircus carnifex), probably the most-long-lived specimen in captivity, which lays eggs regularly; Recently obtained Pompadour Cotingas; White-throated Bee-eaters kept with Variable Sunbirds (Nectarina venusta), both of which have reproduced; A juvenile male King Bird of Paradise from Walsrode; A Lesser Green, a Longtailed and a Red-and-Black Broadbill in the same exhibit; Hooded Pittas, which have also bred; An aviary where Painted Finches, Gouldian Finches, Diamond Doves, and Timor Zebra Finches have all bred freely; Yellow-rumped Tinkerbirds; An Oasis Hummingbird (Rhodopis vesper) from Peru, sharing its display with a very rarely kept Dusky Hummingbird (Cynanthus sordidus) from Mexico.

Hummingbirds have long been a specialty at Wuppertal. This was the first German Zoo to keep any following the Second World War, when twelve Brazilian specimens arrived in 1950 (Schuerer, 1983). Wuppertal was also the first European zoo to achieve complete success breeding hummingbirds, commencing in 1977 with Redbilled Streamer-tails (Trochilus polytmus), collected on a Zoo expedition to Jamaica (Schuerer, 1983). From 1977 through 1984, 34 hatched there. From a later importation, twenty more hatched from 1996 through 1999. Twenty-one Black-billed Streamer-

tails (T. scitula) hatched at Wuppertal from 1996 through 1999, and nine Anna's Hummingbirds, the common hummingbird of California, were hatched from 1989 through 1992 (Lindholm, in litt.).

Presently, Wuppertal is propagating Amazilia Hummingbirds (Amazilia amazila) as part of the program set-up by EAZA and the Dutch Aviculturist Jac Roovers, to create a self-sustaining population, in the face of the 2007 commercial import ban. (Lindholm, in litt.). Although at least seven Continental European and British Zoos are involved in this project, only Wuppertal has for far met with success, commencing in 2007. Most of the birds are set up, following Roover's guidelines, in off-exhibit aviaries where the females are segregated, but can be visited by males when they are ready to breed. Dr. Schuerer told me he has found this aggressive species far more difficult to breed than the Streamer-tails, where multiple pairs could be kept in the same aviary.

Perhaps the most astounding of Wuppertal's achievements with softbills is the maintenance of a colony of Barn Swallows for more than thirty years. This program began in 1974, when 25 swallows, caught by an autumn cold snap before they could migrate, were brought to the zoo (Schuerer 1983). They were acclimated to eating housefly maggots, and breeding commenced in 1975. Through 1982, 45 had been reared, and 28 had been released on the zoo grounds, where they formed colonies of their own (Schuerer, 1983) Breeding has been consistent over the years, with 184 hatched through 2005 (*Schuerer*, 2006)

More than a dozen Barn Swallows now share their marshy aviary with two White Wagtails, a breeding pair of European Lapwings, and a flock of European Avocets that have produced more than 400 offspring. This exhibit is one of several built alongside the bird house, connected to off-exhibit indoor compartments. Other inhabitants of these outdoor aviaries include: The first European Hawfinch I'd seen; Guira Cuckoos kept with



The Black-billed Amazon (Amazona agilis) is one of Jamaica's two Amazon species. Zoo Wuppertal received confiscated birds, and has since bred this reputedly difficult species.

Crested Tinamous; Toco Toucans (with which Wuppertal achieved a first German breeding in 1986); New Caledonian Horned Parrots, appropriately exhibited with Kagus; An African community where the first Jackson's Weaver (Ploceus jacksoni) I'd ever seen is exhibited with White-cheeked Turacos, Cape Thickknees, Snowy-crowned Robin-Chats, and African Pygmy Geese; Part of Wuppertal's important group of Bali Mynahs (from 1989 through 2005, 89 were hatched, and

avian formula One-Step Disinfectant Germicidal Detergent and Deodorant



Effective: Pet Focus guards against the most severe bacteria, fungi, viruses that promote disease in birds. Guards against Pseudomonas, Avian Influenza, Chlamydia, Avian Polyoma Virus, Newcastle's and more!

Assurance: Pet Focus gives you peace of mind. Cleans as it disinfects. Use for all your daily clean ups. Spray on, wipe off and protect!

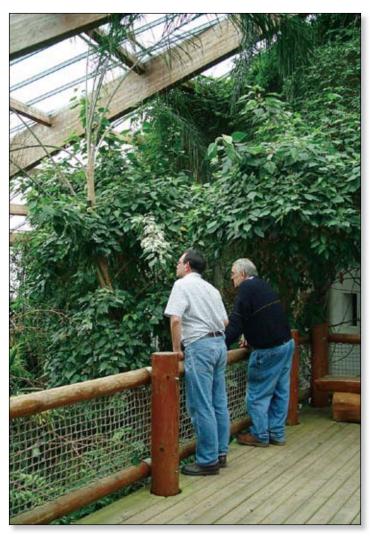
Preferred: Pet Focus is the preferred cleaning product used by thousands of bird lovers. Pet Focus is EPA approved as a rinse free formula and specically formulated for bird diseases and environments. Safer and cheaper than bleach!

Choose other Mango products! www.mangopet.com

Call for free catalog! Phone: 401-232-2290 Fax: 401-232-2291 Email:mangopetinc@aol.com breeding continues), kept with Victoria Crowned Pigeons and the very rarely exhibited Pink-eared Duck.

With nearly sixty species and subspecies, Wuppertal's magnificent collection of ducks, geese and swans is one of the finest in any public zoo. Wonderful sights can be seen all over the grounds. Chinese Mergansers, only recently brought into captivity, were obtained by Wuppertal in 2006. They are exhibited near the endangered Oriental White Storks. Nearby, White-winged Wood Ducks, breeding at Wuppertal since 1999, are kept with a Painted Stork, at the zoo since 1976. Not far away is an aviary for Madagascar birds, which Crested Couas and Crested Ibis share with Madagascar Teal (Anas bernieri), a species considered possibly extinct in the 1970's, but now with a European captive population of around 500. Ruddy-headed Geese, Coscorobas, Yellow-billed Pintails, and Argentine Ruddy Ducks share a very large South American Panorama, with Darwin's Rheas, Guanacos, and Patagonian Cavies. Two Flying Steamer Ducks occupy a pond in a valley. The only time I had previously seen this aggressive species was at SeaWorld San Diego in 1985. The parasitic Black-headed Duck is another South American waterfowl I had previously only seen at SeaWorld.

Another feature of the waterfowl collection was an usually fine series of northern sea ducks. At present Common Eiders are very rare as U.S. public exhibits. I was to find they are rather commonplace in Europe. However the flock of around forty of the European subspecies, in a large sloping enclosure with lawns and deep pools, can only be described as amazing. There were also several specimens of the Pacific subspecies of the common Eider, as well as more than a dozen specimens of the rarely displayed



From left, the author and Dr. Ulrich Schuerer, director at Zoo Wuppertal.

# OTT-LITE LAMPS FULL SPECTRUM, LOW HEAT DISCOUNT PRICES! www.lumenlight.com

800-842-8848 Natural Daylight for the Health of Your Bird!









African Black Ducks (Anas sparsa) at Zoo Duisburg

Spectacled Eider, and some equally rare King Eiders. I was especially surprised to see a long-time captive Black Scoter, as well as Harlequin Ducks and Long-tailed Ducks (or Old Squaws). The Baer's Pochard, from northeastern Asia, was a species I had not seen in more than twenty years.

Space does not allow to more than mention some of the other birds in the collection: Manchurian, White-naped, European, and Wattled Cranes; a Shoebill; Breeding Bateleurs, Lammergeiers, and European Black Vultures; Harpy Eagles; a colony of more than thirty Old World Greater Flamingoes, which have been breeding at Wuppertal since 1966, kept with Chilean and Caribbean Flamingoes as well as a pair of Andean Flamingoes (at the zoo since 1971); a series of aviaries for European birds, such as Stock Doves, Black-caps, Long-tailed Titmice, Bullfinches, and Starlings; Lesser Egrets kept with Scarlet Ibises: Waldrapps (*Northern Bald Ibises*), of which more than 110 have hatched at Wuppertal.

Since 1971, penguins have been the official mascots of Zoo Wuppertal. That year, the Wuppertal Zoological Society celebrated the Zoo's 90th anniversary with a glass enclosed temperature-controlled penguin exhibit. King Penguins were obtained in 1975, and commenced breeding in 1987. Thirteen had hatched through 2006. In 2006, the Zoological Society celebrated the Zoo's 125th anniversary with a naturalistic outdoor enclosure, with underwater viewing, for thirty South African Penguins. Furthermore, the Society inaugurated Pinguanale 2006, a citywide art project. Two hundred larger than life fiberglass King Penguins were sponsored by corporations and organizations, and decorated in all sorts of imaginative ways. The sponsorships will contribute towards an elaborate new King Penguin habitat intended for the near future.

Wuppertal does not have as extensive off-exhibit bird breeding facilities as some other zoos, but some choice species are kept off-display. Red-browed Amazons (*Amazona dufresniana rhodocorytha*) are maintained in what was formerly the Max Planck



Waldrapps (Geronticus eremita) at Zoo Duisburg

research center, where behavioral research on wild cats was conducted in the 1960's. Red-fronted Couas (*Coua reynaudii*) are one of four species of this endemic Madagascar genus exported through Vogelpark Walsrode. Although Couas are cuckoos, the head of this species bears such a remarkable to resemblance to that of a Red-winged Laughing Thrush, that, from a distance, that's what I thought I was seeing.

#### **Zoo Duisburg**

Andre Stadler, Wuppertal's Curator, casually mentioned ten "scientific zoos" within an hour's drive of Wuppertal. Abenteuer Zoo (*Petzold & Sorge*, 2007) discusses 72 collections in Wuppertal's (heavily industrialized) state of North Rhine—Westphalia., perhaps the densest concentration of zoos anywhere. While making Wuppertal our home base, Natalie and I were able to visit three other collections in this area.

Opened in 1934, the 37 acre Duisburg Zoo has long been famous for its mammal collection, including the last Amazon Dolphin outside of South America, and breeding groups of Bottle-nosed Dolphins, Fossas, Koalas and Bare-nosed Womabats. There is also an aquarium with both freshwater and saltwater fishes, but only a few reptiles, with, so far as I could tell, no snakes at all.

While not large, the bird collection is attractive. One of the few breeding colonies of Pink-backed Pelicans will be found here. In various outdoor aviaries are Impeyan Monals, Snowy and Great Grey Owls, Fishcher's Touracos (which are not all that rare in Europe), Violet Plantain-eaters, and a breeding colony of Waldrapps. Among the species to be seen in open-air enclosures are Sarus and Red-crowned Cranes, Kori Bustards, and a breeding colony of South African Penguins..

When the Equatorium was opened in 1962, it was billed as the world's largest monkey house. It still holds an impressive collection of primates, but its exhibits have diversified. The rarely displayed African Black Duck is exhibited with Pygmy



#### Premium Pine Cones, Ltd.

"... the greatest bird toys on Earth"TM New crop, Sanitized, Bird-ready™

No fertilizers, no pesticides Ask about Natty Newfeather's™

NO-PLUCK Collars and Refeathering Kits

801-463-0300

premiumpinecones@acl.com

#### THE 14 KARAT PARROT

Great "Parrotphernalia" since 1982

PO Box 440 Farmingville NY 11738 631-696-6078 www.14karatparrot.net

Call or write for free brochure, visit us on the web or see us at monthly meetings of the LI Parrot Society (www.liparrots.org)



WE HAVE SCOOTERWARE! and more! Visit www.14karatparrot.net



# Bird Toys Etc

Custom Bird Toys, PVC Gyms and Embroidered Shirts "The Kitchen Sink & Forever Toys" 1-800-810-9044 Our On-Line Catalog:

www.birdtoysetc.com

Ieff&Barbara

#### Parrot Peak Preserve

15840 Airlie Road · Monmouth, OR 97361 · (503) 623-5034

#### Home of Triple P™ products:

Pellets: Crumbles; Hand Feed; Orchard Supreme; Snuggle Safe.

Supplies: Seeds; Nuts;

Handfeeds; Syringes; Crocks; Disinfectants; Toys; etc.

Also: Domestic Handfed and Parent Raised Birds

iulieatk@open.org Julie Atkinson, Owner www.parrotpeakpreserve.com Hippos. There is a feeding aviary occupied entirely by Swainson's Lorikeets (which Duisburg breeds). In the huge exhibit for Golden Lion Tamarins are Lesser Kiskadees, an infrequently exhibited Tyrant Flycatcher, and Roulroul Partiridges can also be seen here.

#### **Zoo Krefeld**

The 32-ACRE Krefeld Zoo was founded in 1938, on

the site of a private collection that had existed from 1877 to 1914. It came to international attention when the first Cheetah cubs to survive in captivity were born there in 1960. In avicultural circles, this zoo is renowned for hatching more than 70 Carmine Bee-eaters and distributing them to many other collections (Bernhardt et al, 2007). Krefeld currently maintains around twenty Carmine Bee-eaters in a soaring avi-



Senegal Bustard (Eupodotis senegalensis) at Zoo Krefeld

ary inside the glass-walled birdhouse, built in 1989. A vast sandylooking cliff at the back of this exhibit is pocked with bee-eater nests. Other African species in this building include Senegal Bustards, African Pygmy Geese (which have been parent-raised here) and Egyptian Plovers, successfully bred at Krefeld for the first time in captivity (Bernhardt et al, 2007). Among other birds in this building are Superb Fruit Doves (more frequently seen in Europe than in the U.S.), Red-whiskered Bulbuls, White-naped Pheasant Pigeons, and Toco Toucans.

Elsewhere around the zoo can be seen Snowy, Great Grey, and European Great Eagle Owls; an aviary where Inca Terns and American Black-necked Stilts have bred for years; breeding Old World White Pelicans which have become rather famous for perching on the Aldabra Tortoises that share their enclosure; Southern Ground Hornbills; Humboldt's Penguins; Hyacinth Macaws; South African Ostriches that have raised chicks in the huge exhibit they share with Scimitar-horned Oryx and Ellipsis Waterbuck; an extensive collection of waterfowl including Maned Geese, European Eiders and Emperor Geese (a more common zoo bird in Europe than in America); European White Storks that nest in the flamingo exhibit; Red-crowned Cranes, which stalk up and down outside a glass wall of the ape house.

I did not see the Red-legged Honeycreepers or Turquoise Tanagers in the huge south American Rainforest, but was amazed by two species of free-range primates: the very rare Black Lion Tamarin, and a prolific colony of White-faced Sakis.

#### Zoo Koeln

FOR MANY YEARS, THE COLOGNE ZOO, opened in 1860 was famous chiefly for its birds and primates. In the early 1950's, it held the leading German bird collection (*Jones, 1954*). In recent years, it has expanded in other areas, for instance constructing a truly amazingly huge house for Asian Elephants, where they have bred well. However, its collection of 169 taxa of birds remains an important feature, in beautiful exhibits all over this 50-acre zoo. Koeln's Director, Theo Pagel, is the son of the late master aviculturist Theo Pagel, who will be remembered by those present at the 1986 AFA Convention in New Orleans. The younger Theo Pagel provided translation for his father's presentations on finches and lories. He had been Curator of birds at Koeln for years. When he became Director, in 2006 the curatorship was filled by Dr. Bernd Marcordes, who arrived from Vogel Park (Walsrode).

The 1890 birdhouse, an ornate Kremlin-like building, was remodeled in the 1950's but is now devoted to New World Monkeys. Instead, birds are exhibited indoors in the huge Rainforest building, which also (primarily) features mammals, reptiles and fishes of Tropical Asia, New Guinea, and the places between. Among the species which share the vast walk-though area with Rodrigues Flying Foxes, the following reared their own chicks in 2007 (*Pagel, 2008*): Roulroul Partridges (which, for some reason, are called "Ostrich Quail" in Germany), Scheepmaker's Crowned Pigeons, Beautiful and Superb Fruit Doves, Purplenaped Lories and Bali Mynahs (which produced ten offspring). Fairy Bluebirds and Red-whiskered Bulbuls also hatched chicks, which were hand-raised (*Pagel, 2008*). Javan Whistling Ducks, Nicobar Pigeons and Green-naped Pheasant Pigeons are other inhabitants of the free-flight area.

Other birds will be found in separate exhibits in this building. A pair of Great or Concave-casqued Hornbills occupies an enormous aviary. A small flock of Java Sparrows ("Giant Finches" in German) shares a glass-fronted display with a pairs of red Stella's Lorikeets, and Hill Mynahs (which have not yet become a rarity in European zoos, as they are now in the US). A pair of Vo Quy's Pheasant is displayed with White-handed Gibbons. Discovered in 1964, and scientifically described as Lophura hatinhensis in 1975, it appears to differ from the Edward's Pheasant by the male having white central tail feathers. While listed by ISIS as a species, recent research suggests that this bird may be an artifact of human habitat alteration. As in domestic populations, the appearance of white feathers may be due to a very small gene pool, the result of deforestation and hunting. At least since Edward's Pheasant was described to science in 1896 its wild population has been small, and, for decades it was feared to be extinct in the wild, existing only in aviculture. Be that as it may, a captive population of Vo Quy's Pheasant, originating from birds collected for the Hanoi Zoo in 1990, is maintained in European Zoos. There are none in American public collections.

Among other birds displayed in aviaries through out



Cologne Zoo's Pheasantry

the Rainforest include Javan Fishing Owls, recently arrived Renauld's Ground Cuckoos, Palm Cockatoos, and Fawnbreasted Bowerbirds.

The Rainforest building is also the site of a series of roomy offexhibit aviaries for softbills and pigeons. Bernd Marcordis toured me through. Among the residents were White-rumped Shamas, Red-tailed and Courtois' Laughing Thrushes, and, from Walrode, Blue Couas and Madagascar Blue Pigeons.

Directly outside this building is a walk-through exhibit for small birds of prey, where a pair of the endangered Saker Falcon is of particular interest. I don't recall seeing Harris Hawks, but three were parent-reared at Koeln in 2007 (*Pagel*, 2008).

The "Pheasantry" is a remarkable series of outdoors aviaries. Two of these especially stand out in my memory. In one, a pair of majestic (and critically endangered) Siberian White Cranes is exhibited with European Lapwings and European Rollers. The other features a remarkable collection of shore birds. While Ruffs have been exhibited in the past by such U.S. zoos as San Diego and the Bronx, seeing a breeding colony with six males in full courtship plumage was breath taking. The breeding plumage of male Ruffs (the females are called Reeves) is a remarkable case of polymorphism—The mane of feathers and the elaborate headdress each can appear in several different colors and patterns, and are themselves interchangeable. This was quite evident in Koeln's birds. Along with a flock of European Avocets, other birds in this aviary include a breeding flock of Common Terns, and the first Ringed Plovers and Rosy Pastors (a Eurasian Starling) I had seen. Among the many inhabitants of the other aviaries in this complex are Magpie Shrikes, Socorro Doves, breeding Whitefronted Bee-eaters, Bearded Barbets, Madagascar Fodies, Madagascar Crested Ibises, Crested Couas, a big flock of Scarlet Ibises, breeding White-backed Australian Magpies, a breeding pair of Goliath Herons, breeding Yellow-rumped Caciques, Boatbills, Hammerkops, Great Curassows, breeding Congo Peafowl, and recently obtained Swift Parrots (an Australian species which has never been abundant in U.S. aviculture, and has recently been

declared endangered). One inhabitant of the "Pheasantry" I did not see was the Channel-billed Cuckoo (*Scythrops novaehollan-diae*). Peter Zwansger told me that Koeln's pair, at the zoo since 2000, had been kept with the Australian Magpies for years, in the hope that they would lay their eggs in their nest. However, the aggressiveness of the "magpies" finally dictated moving the cuckoos to the aviary with the Siberian White Cranes, where, Peter informs me, they like to sit in their shelter, especially on drizzly days like the one of my visit. So I did not get to see this remarkable bird until I visited Berlin.

Near the "Pheasantry" are the "Eulenklosters"—The "Owls' Monastery", abandoned by its monks, which has now gone back to nature. In this romantic exhibit is a walk-through aviary where imposing Black Storks nest in the ruined garden, shared with European Kestrels. There are separate compartments for various European Owls, of which Hawk Owls and Great Grey Owls stand out in my memory.

There is a rich collection of wetland birds in various open enclosures. Among the 61 taxa of ducks, geese, and swans, mostly exhibited in large park-like enclosures with small lakes, are such rarities as Magellanic Steamers, Orinoco Geese, Meller's Ducks, Madagascar Teal, Philippine Ducks, Baikal Teal, Falcated Teal, Laysan Teal, New Zealand Scaup, Red-breasted Mergansers, White-winged Wood Ducks, and White-headed Ducks. Marabou Storks have produced several offspring, as have Old World White Pelicans. There are well over a hundred Flamingos, including large flocks of Caribbean, Old World Greater, and Chileans. It is intended that eventually only Caribbeans (of which there are presently nearly sixty, but mostly male) will be maintained here. Seven Humboldt's Penguins were hatched in 2007 (*Pagel, 2008*), and, for the first time, Koeln's small colony of Australian Little Blue Penguins bred, producing one chick.

The generally park-like atmosphere of Zoo Koeln is enhanced by the presence of feral Indian Ring-necked Parakeets. The presence of this species as a self-sustaining population in Germany is a recent development, and it has been spreading steadily along the Rhine, in increasing numbers, over the last decade.

Part II will cover Erlebnis-Zoo Hannover and Vogelpark Walsrode. Berlin's two zoos will be discussed in Part III.

#### Acknowledgements

My wife Natalie and I could not have made so extensive a visit to Germany without the courtesy extended to us as zoo professionals, of the guest rooms at Zoologischer Garten Frankfurt, Zoo Wuppertal, and Zoologischer Garten Berlin, a European tradition that has yet to catch on with most American zoos.

#### **Zoologischer Garten Frankfurt**

Richard Weigl, Primate Keeper at Frankfurt, is one of the most remarkable zoo historians and collectors of data, and a world-wide zoo visitor extraordinaire. He was not only a wonderful guide at the zoo, but showed us his city, and gave us an excellent introduction to the German rail system.

#### **Zoo Wuppertal**

Dr. Ulrich Schuerer, Director for many years, was a most cordial host, spending hours showing us his collection, and making sure our stay in Wuppertal was delightful. Andre Stadler, Curator, was likewise an enthusiastic host and guide. Both of them made sure our visits to other zoos in North Rhine—Westphalia went smoothly.

#### **Zoo Krefeld**

Although a change of plans prevented us from meeting with Director Dr. Wolfgang Dressen, he made sure we were expected, and provided with literature. Wolfgang Nehring, Elephant Keeper, is one of those European zoo keepers who is interested in everything, and was an enjoyable guide.

#### Zoo Koeln

Dr. Bernd Marcordes, Curator of Birds gave us a thorough tour of the bird collection, and provided us with very useful literature. Peter Zwansger, Okapi Keeper, and master zoo enthusiast, was not only a cordial host in Cologne, but transported us from Wuppertal to Lundi Farm, Hanover, and Walsrode, via the autobahn. His insight from many years of visits to these places was invaluable. He also arranged pleasant accommodations in the town of Walsrode.

#### References

Bernhardt, C, W. Dressen, & P. Vogt (2007). *Zoofuehrer Zoo Krefeld*. Druckerei Meteor.

Jones, M.L. (1954) *Birds of the Cologne Zoological Gardens*. Avicultural Magazine 60:26-30.

Lindholm, J.H. (2007) Cotingas. IN Holland, G. (2007) *Encyclopedia of Aviculture*. Hancock House: 600-611.

\_\_\_. ( in litt). The aviculture of hummingbirds: A historical perspective.

Proceedings—IV International Symposium on breeding birds in captivity.

Pagel, T. (2008) Jahresbericht 2007 der Aktiengesellscchaft Zoologischer Garten Koeln.

Petzold, D. & S. Sorge (2007) Abenteuer Zoo—550 Tierparks, aquarien und reptilienhaeuser. Leopold Stocker Verlag.

Schuerer, U. (1983) Maintenance and breeding of softbills—Todies, Streamer-tailed Hummingbirds and swallows. Proceedings—Jean Delacour/IFCB Symposium on breeding birds in captivity. 1983:567-590.

\_\_\_. (2006) Rundgang durch den Zoologischen Garten der Stadt Wuppertal. ZooWuppertal.

Schuerer, U. & T. Rosner (2008) Die Nachzucht des Roten Felsenhahns, Rupicola peruviana (Latham, 1790) un des Schildschmuckvogels, Querula purpurata (Mueller, 1776) im Zoologischen Garten Wuppertal. Zoologischer Garten N.F. in litt.