## The Melbourne Zoo Bird Department

by Ian Smith, Senior Birdkeeper, Bird Department, Melbourne Zoo Victoria, Australia

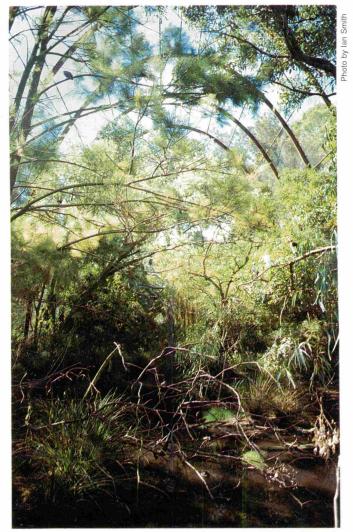
he Melbourne Zoo is one of only four major zoos in Australia. It is also one of the largest, covering 52 acres, and is situated in the middle of a large innercity parkland, and only five minutes by car from the center of Melbourne.

Animals from Australia and all over the world are displayed in landscaped enclosures. Some exhibits are located in Bio-Climatic zones which is the beginning of the zoo's masterplan. This plan will see the zoo divided into Bio-Climatic Zones, including Asian and African Rainforests and Australian Eucalypt Woodland. Each zone will have species of animals on display that are indigenous to the specific habitat.

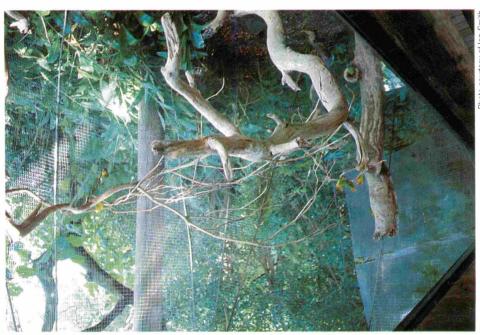
The Bird Department has over 141 species represented by over 900 individual birds from Australia and around the world. Most are on display in a range of landscaped aviaries and open roofed exhibits, while a small number of birds are in the extensive off-limit quarantine and hospital complex.

The bird displays are located around the zoo grounds and include aviaries, lakes, and ponds which are landscaped and planted to represent particular habitats, including Rainforest and Woodland.

I would now like to take you on a tour of the bird displays at the Melbourne Zoo and show you our displays and collection.



The great flight aviary.



A view of the lovebird exhibit. Look carefully for the little birds.

#### **African Rainforest**

Our first stop is the African Rainforest where we climb a wooden boardwalk to the Arboreal Primate Complex. The two aviaries are glass fronted at tree-top height and are planted as Rainforest Aviaries. The exhibit brings us face to face with a pair of African Grey Parrots Psittacus erithacus who might be mimicking the high pitched call of the White-cheeked Gibbons next door. The next aviary is at the other end of the boardwalk and this has a group of Fischer's Lovebirds Agapornis fischeri.

#### The Asian Rice Field Aviary

We continue through the African Rainforest and enter the Asian Rainforest where we come to the first of the Zoo's newest aviaries "The Asian Rice Field Aviary." Entry is via an entrance foyer which removes reflections from the floor to ceiling glass across the front of the aviary. This allows clear viewing of the aviary without the distraction of wire-mesh. The theme of this aviary is how many birds adapt and can actually benefit from man-made changes to their environment. The main feature is a threetiered rice paddy field surrounded by rainforest. The design represents an area of Asian Rainforest, which has been modified by humans but is still a home for birds.

Black-winged Stilts *Himantopus* bimantopus and Sacred Kingfishers *Todiramphus sanctus* are two species that use the rice field both in the aviary and in the wild.

The other species include the Dusky Lory *Pseudeos fuscata* and the Emerald Dove *Chalcophaps indica*, these birds use the rainforest. Rice is grown and harvested each year in the aviary by the keepers and horticultural staff.

#### **Asian Rainforest Aviary**

The next aviary is the Asian Rainforest Aviary, which is of the same design as the previous one — it is planted and landscaped to represent a small clearing surrounded by foliage. A small number of birds are housed in this aviary so as to avoid damage to the foliage. The birds include the Plumheaded Parakeet *Psittacula cyanocepha*-



A White-browed Woodswallow

la, Blue-faced Parrot Finch Erythrura trichroa, and Siamese Fireback Pheasant Lophura diardi. The two Asian Rainforest aviaries are designed for easy viewing. Because the roof angles upwards towards the rear of the aviary it gives no real indication of the depth; the foliage is thick and so most of the frame is hidden which further improves the illusion that you are actually in the birds' habitat.

Leaving the Asian Rainforest we walk past the Kangaroo Exhibits. We are now at the beginning of a bank of aviaries with a large range of Australian parrots, passerines (softbills) and pigeons. When built in the 1960s the complex consisted of 52 individual aviaries specifically for parrot breeding with one pair of birds in each. A few years ago the complex was re-developed by the removal of several dividing walls to increase the aviaries sizes and reduce the total number of aviaries to 15. Landscaping and planting was completed to create displays representing different areas of the Australian wilderness including grassland, coastal, woodland, and rainforest.

The birds displayed feature parrot species including Scarlet-chested Parrot Neophema splendida, Bourke's Parrot Neopsephotus bourkii, Cloncurry Parrot Barnardius zonarius macgillivrayi, Princess Parrot Polytelis alexandrae, Golden-shouldered Parrot Psephotus



The Cloncurry Ringneck Parrot

chrysopterygius, and Purple-Crowned Lorikeet Glossopsitta porphyrocephala.

Rainforest birds include Regent Bowerbird Sericulus chrysocephalus and Rose-crowned Fruit Dove Ptilinopus regina. Passerines (softbills or song birds) include Superb Fairy-wren Malurus cyaneus and White-browed Woodswallow Artamus superciliosus.

#### Flightless Birds

Opposite the above aviaries are the Flightless Bird (Ratite) enclosures, which are large yards with Southern Cassowary Casuarius casuarius, Ostrich Struthio camelus and Greater Rhea Rhea americana. A pair of Brolga Grus rubicunda are next to the Rhea. They have been at the zoo for over 30 years and have bred successfully every year for most of this time.

#### The Great Flight Aviary

When we walk to the end of the path in front of the Ratite yards we enter one of the feature exhibits of the Zoo. The Great Flight Aviary is a 40-year-old; 110 yards long and 33 yards high walk through aviary. It is divided into three habitat zones Rainforest, Wetland, and Woodland. Entering into the Rainforest you see a Satin Bowerbird *Ptilonorhynchus violaceus*, Common Bronzewing *Phaps chalcoptera* and Australian Brush-turkey *Alectura lathami*.

You continue walking along an elevated wooden boardwalk which is parallel to the aviary wall. The walkway crosses to the opposite side using a large swing bridge which also serves as a division from the Wetland Zone where you are at eye level with White-faced Heron *Egretta novaehollandiae* and Glossy Ibis *Plegadis falcinellus*, to name but a few. The walkway comes to a pier, which looks out over a large water area where a family of Blue-billed Ducks *Oxyura australis* is swimming.

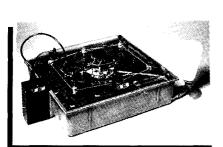
The walkway continues and descends down to the water level and crosses using a pontoon bridge. Rising up to the previous height you see

Cockatiels *Nymphicus hollandicus*, Red-winged Parrots *Aprosmictus erythropterus* and Red-tailed Black Cockatoos *Calyptorhynchus banskii*. The aviary has over 30 species of birds in total including water birds, ground birds, parrots, and passerines. Nearly all of the species breed and raise young in the aviary. Certain species in the collection breed only in this aviary.

#### **Assorted Smaller Aviaries**

Our next stop is a circular aviary, divided into eight separate aviaries with Australian species of birds in land-scaped displays representing Rainforest, Woodland, and Grassland habitats. The birds include Eclectus Parrot Eclectus roratus, Eastern Whipbird Psophodes olivaceus, Laughing Kookaburra Dacelo novaeguineae and Australian King Parrot Alisterus scapularis.

A large selection of finches from Australia and the world can be seen in two aviaries designed especially for these active birds. The aviaries are next to each other and have a shelter across

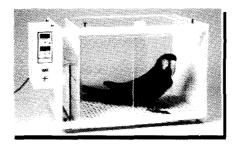


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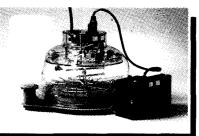


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the rear, which is both the feed area and nesting area with brush for nest building. The birds breed and raise their young in the aviary by themselves. The fronts of the aviaries are landscaped with large bushes and grasses for ground cover. Species include Cuban Grassquit *Tiaris canora*, Blue-faced Parrotfinch *Erythrura trichroa*, Pictorella Mannikin *Heteromunia pectoralis*, Painted Finch *Emblema pictum*, and Star Finch *Neochmia ruficauda*...

One of the aviaries also has a group of Hermann's Tortoises *Testudo hermanni*, which is a small land tortoise from the Mediterranean region; these live happily with the birds. The tortoises stay in the aviary all-year-round and breed regularly each summer although the eggs are incubated and hatched in the reptile department.

There are a number of birds of prey and carnivorous bird species in several aviaries that vary in size and design from a very large wire and cable aviary with Little Eagles *Hieraaetus morphnoides* and Whistling Kites *Haliastur sphenurus*.

Two aviaries feature woodland species including the Blue-winged Kookaburra *Dacelo leachii*, Tawny Frogmouth *Podargus strigoides*, and Bush Stone-curlew *Burhinus grallarius*. Several Australian owl species are on display around the Zoo and these include Barking Owl *Ninox connivens*, Southern Boobook Owl *Ninox novaeseelandiae* and Barn Owl *Tyto alba*.

We are currently doing a lot of intensive husbandry with nest-building, suitable pairings, and diets, to breed as many of these species as possible, as many are not easily bred in captivity.

#### **Popular Little Penguins**

One of the most popular exhibits is the Little Penguin *Eudyptula minor* exhibit, which has a large freshwater pool and is landscaped with coastal plants and sand dunes so as to represent the natural habitat of this bird along the coast of Australia. This is the most successful breeding group of this species in the world, producing about eight chicks a year. Burrows are built into the dunes and the penguins incubate and raise their young in these burrows. The birds range in age from last



The Asian rice paddy exhibit.



An aviary complex used primarily for breeding parrots.



Purple-crowned Lorikeet

year's young to some birds over 18 years old. The penguins are all handfed fish by the keepers twice daily and a presentation is given each afternoon for visitors when the keeper explains the species and their captive husbandry.

#### **Mixed Species Exhibits**

Mixed species exhibits are a new area that we are developing, to create more naturalistic exhibits that allow birds to co-exist with other types of animals. A group of Australian Bustard Ardeotis australis is in the same large open exhibit as a group of large Blackstriped Wallabies Macropus dorsalis. These two species were chosen as they naturally occur in the same habitat.

The bustards settled in well and bred last year for the first time at Melbourne Zoo, although the chick was incubated and handraised by the keepers. The chick was re-introduced to the group and was accepted without any problems.

Other mixed species exhibits include a juvenile brolga on display with a small group of the Red -necked Wallaby Macropus rufogriseus. A pair of Egyptian Geese lives happily with our male Pygmy Hippopotamus.

#### **Behind the Scenes**

The areas off limits to the public consists of aviaries and open-roofed yards, which can hold any of the species in the collection. The off-limit holding areas are used for pre-shipment and post-shipment quarantine, and sick or injured birds which are recuperating, and for intensive breeding.

The bird department has a bird hospital which can house any species from newly hatched chicks to large parrot-sized species. The hospital is temperature controlled and designed to allow the hospital keepers to treat and recuperate the sick and injured birds brought in from both the collection and from public donations.

Nine keepers maintain the bird collection and the displays are divided into five grounds, with a selection of exhibits on each. Each enclosure is cleaned and the birds are checked each morning. The aviaries are designed for specific species such as raptors, finches, parrots, or waterfowl. The displays are landscaped to resemble the natural habitat of the birds using plants, natural perches, rocks etc. Some species can provide problems if they are destructive such as parrots, and in these cases a plant that isn't palatable is chosen.

Plants can also be very important for the birds to use for shelter, nest building and areas to get away from other birds.

Breeding for most species in the zoo begins in October and continues through to March (late spring to early autumn here in Australia), although some species breed all year round. The Little Penguins begin in July and continue through to November.

Generally all the birds will breed in the aviaries, although some species need to be housed as pairs, such as some Passerines so as to avoid disturbance from other birds, or in a quiet aviary not on public view. Birds of prey often require quiet aviaries for breeding success, as they are very secretive birds. The keepers supply nesting requirements such as nest boxes and logs, materials for nest weavers including seagrass, paper bark, human and animal hair, and grasses. The boxes and logs are supplied to suit each species including size, location and number.

The weather in Melbourne is fairly mild with winters in Melbourne only producing snow very occasionally and summers only having a small number of really hot days. The mild climate means that we are able to house birds in outside aviaries all year round. Shelter is provided usually at the rear of the exhibits with a roof of metal or fiberglass sheeting. Heating is provided via ceramic bulbs in certain aviaries for species that are affected by the cold including the Golden-shouldered Parrots Psephotus chrysopterygius and Gouldian Finch Erythrura gouldiae. In summer the aviaries are kept cool with water spray systems which the birds really enjoy as they can have a wash and preen.

I hope you have enjoyed the tour of the zoo and, if you ever visit Australia, please come and visit Melbourne Zoo and experience it for yourself.