

## VISITS TO SOME LATIN AMERICAN ZOOS: PART 2 – MEXICO

BY RICHARD WEIGL

Mexico City, which in 1930 had only about one million people, is now the biggest metropolis in the world, with almost 28 million. It was a Sunday when I visited Chapultepec Zoo, and I found it quite difficult to see the animals – entry to the zoo is free, so thousands of Mexicans want to go there, making it very overcrowded.

### Zoológico de Chapultepec, Mexico City

This is one of the four animal parks in Mexico City: the others are Zoológico de San Juan de Aragón in the east and two in the south, Bosque de Tlalpan and Parque Los Coyotes. Chapultepec, in the west of the city, was founded in July 1923 as the Alfonso L. Herrera Zoo, but now belongs to the government; it has an area of 17 hectares, and last year received 5.5 million visitors. Its collection consists of around 1,750 animals of some 211 species (mammals, birds and reptiles). The zoo is one of the most modern in the world, having closed in 1992 for remodelling on a new concept, and opened again in August 1994. The animals now enjoy enclosures that recreate their own habitats, in a series of biomes representing, for example, tropical and temperate forests, deserts, pastures and tundra. Dr Fernando Gual Sill took over as director in January 1999, having previously worked as head veterinarian since 1990. I was shown round by Dr Everardo Montfort, the vet in charge of the aviary, who has also worked there since 1990.

Just inside the entrance stands a big zoo shop, and nearby a large cafeteria. (This was the first zoo I have visited anywhere in the world which has a McDonald's catering service.) Visitors are not allowed to eat while they walk around the zoo, but only near the food sales areas, which are unfortunately very overcrowded; this rule is enforced by a security staff of about 50. The zoo also has no children's play area, and closes very early, at 4.30 p.m. All these disadvantages are the result of government policy.

To the right of the entrance is a section for desert animals with many open enclosures with large rocks for bighorn sheep, a pair of rare Mexican wolves (the subspecies which now survives in the wild only in northern Mexico, but is the subject of a reintroduction project in the north-western U.S.A.), three pinioned American crows (*Corvus brachyrhynchos*), two coyotes, many collared peccaries, bobcats, hamadryas baboons and five dromedaries. There follows a savanna section: I saw four ring-tailed lemurs; savanna monkeys; two spotted hyaenas; two open glass-fronted enclosures for African spurred tortoises (a very productive group of about 80 of different ages) and yellow-footed

tortoises (*Geochelone denticulata*); lions; a large mixed enclosure with groups of helmeted guineafowl, African crowned cranes (two species), four giraffes (all looking like *reticulata*), five brindled gnus and Grant's zebras; a male ostrich; Carlos, a male black rhino about 35 years old; a male southern white rhino; three common hippopotamus in a nice large pool; defassa waterbuck, a male sable antelope, nilgai, mouflon, blackbuck, a yak, kangaroos, llamas, a guanaco, three male American bison, two female Asian elephants (Ranny and Yammy, both here since 1954) and eland. Next, the section has two very nice rocky enclosures with large underwater viewing windows for Californian sea lions and two adult female polar bears from Canada; it was good to see the bears swimming under the water. An open glass-fronted enclosure held dark grey Mexican naked dogs ('Xoloitzcuintlis').

I then went through a tunnel and came to an aviary about 20 metres high housing 1.2 golden eagles, a pair of whom were busy building a nest, and twelve more good, equally high bird of prey aviaries with two peregrine falcons, one very old Pallas' sea eagle (said to have probably arrived at the zoo in about 1960, as it was already there when the animal inventory was started on 1 May 1965), great black hawks (*Buteogallus urubitinga*), white-tailed, red-tailed and roadside hawks (*Buteo albicaudatus*, *B. jamaicensis* and *B. magnirostris*), Harris' hawks, barn owls, great horned owls, caracaras, black vultures and 1.2 Andean condors, all three bred at the zoo. The parent condors reared seven offspring in all; they arrived in about 1960–1962, but the female died this year. The father and the other four young birds are kept in the off-exhibit breeding area, which also has many breeding pairs of macaws, African grey parrots and amazons.

Other birds to be seen near the bird of prey aviaries, in arched cages with piano-wire fronts, include peafowl, ducks, doves, cockatoos, parrots, a turaco, four thick-billed parrots, an old female great Indian hornbill, a large group of Passeriformes, emus, mute and black swans, many flamingos with a nest area, and some free-flying night herons who are also active by day. A big walk-through aviary called 'Aviario Moctezuma' houses only Mexican birds. Unfortunately access is very tightly controlled by the security staff, who will not allow visitors to bring in things like bags and pushchairs, and often make people angry by keeping them waiting before letting them in. This aviary contains about 80 birds, including macaws, toucans, egrets, one American white pelican, gulls, ducks and curassows.

The next section is the Holarctic region, with many white-tailed deer, American black bears (a nice enclosure), a grassy glass-fronted enclosure for the very rare endemic volcano rabbits (*Romerolagus diazi* – probably the only ones to be seen in any zoo in the world), pumas, raccoons with underwater viewing windows, three small glass-fronted exhibits for a tayra and polecats, a nice wild enclosure with running water and grass for a pair of brown bears (the female Balya, of the Syrian subspecies, was born in January 1994 at Berne Zoo and donated to Chapultepec in 1997), three Canadian wolves, Canadian lynx, many fallow deer, American wapitis (twin females born in 1982), another pair of Mexican wolves, tigers, sika deer, Japanese macaques (a donation from Ueno Zoo, Tokyo, in May 1997) and grey foxes. Three large enclosures with glass fronts house three



The brown bear enclosure at Chapultepec Zoo, showing the Syrian female, Balya. (Photo: Richard Weigl)

spectacled bears, born at the zoo in 1997 and 1998, young emus (hatched in January 1999) and a baby northern tamandua (*T. mexicana*).

Also in this section are the zoo's most valuable animals, the giant pandas. The first of this species who came to Mexico were a pair donated by the Chinese government in September 1975, who died in 1988 and 1989. At the time of my visit there were four at the zoo, all solitary: a male, Liang Liang (born 22 June 1983), and the females Xiu Hua (born 25 June 1985), Shuan Shuan (born 15 June 1987) and Xin Xin (born 1 July 1990). Xin Xin, the last to be successfully born at Chapultepec, was bred by artificial insemination; her father was Chia Chia of London Zoo and her mother was Tohui, the first giant panda to be successfully bred outside China (born 21 July 1981, died 16 November 1993)

The next section, Forests, has nice underwater viewing windows for crocodiles and turtles, and two glass-fronted exhibits, one with good artificial mangrove trees for two crab-eating macaques, and another for a single mantled howler (*Alouatta palliata*) with trees to climb. There is a very nice large grass enclosure with natural trees for two gorillas, the 38-year-old female Mahari from Cincinnati Zoo and her son Bantu, the first gorilla born in Mexico (at Chapultepec on 20 September 1991). Several glassed cages with artificial trees and live evergreen plants house rhesus macaques, pythons, a male white-crowned mangabey (*Cercocebus torquatus lunulatus* – a donation from a famous Mexican musician), one greater white-nosed monkey (*Cercopithecus nictitans*) and 1.3 black-nosed patas monkeys (*Erythrocebus p. patas*). Three male orang-utans (two born at Chapultepec) and two old male chimpanzees are all solitary, and have no live plants in their enclosures except grass. Also in this area are leopards, black panthers, tigers (including a white

one said to be from Memphis Zoo), a binturong, a breeding pair of spectacled bears (the male born at Jersey, the female from Vienna, but born at Tierpark Berlin), white-throated and brown capuchins, black-handed spider monkeys in with kinkajous and coatis, agoutis, pacas, brockets, jaguarundis, black and spotted jaguars and ocelots.

### Zoológico de San Juan de Aragón, Mexico City

The San Juan de Aragón Zoo, which opened on 20 November 1962, now looks very old, rather as Chapultepec did before its total remodelling. Aragón is also to be remodelled in the very near future, and will soon be closed to the public. Of its total area of 36.5 hectares, about 16 ha is developed as a zoo. In 1998 it had about 1.8 million visitors. The Director since February 1998, Dr Juan Carlos Ortega Saez, previously worked at a private veterinary practice and in the statistical department of the health bureau. Earlier the two zoos, Chapultepec and Aragón, shared a single director who devoted most of her attention to Chapultepec. About 1,070 specimens of 129 species of mammal, bird and reptile are kept mostly in very simple enclosures. Dr Patricia Reyes, a veterinarian at Aragón since 1990 and previously at Chapultepec from 1977 to 1989, was very friendly and showed me round.

There were some simple exhibits for two adult male chimpanzees from a circus, a old female savanna monkey, many black-nosed patas monkeys and hamadryas baboons, a male rhesus and two female pigtail macaques, jaguarundis and an island group of black-handed spider monkeys. There were two large enclosures with pools for hippos, and a natural woodland enclosure for Mexican wolves (in March 1998 two families from the zoo were released in New Mexico, U.S.A.). Other mammals I saw included coatis, raccoons, a male mara, ocelots, a group of five kinkajous (active in the daytime), jaguars, leopards, coyotes, bobcats, pumas, lions, tigers and 1.2 American black bears. Two large circular ponds held flamingos, one great blue heron, ducks and Egyptian geese with nine week-old goslings. In aviaries were many species of amazons, macaws and conures, two emerald toucanets (*Aulacorhynchus prasinus*), two keel-billed toucans (*Ramphastos sulfuratus*) and one hill mynah, while on the ground were tortoises, including the rare desert tortoise (*Gopherus agassizii*).

The bird of prey aviary had a male Andean condor, two king vultures, two golden eagles, one collared forest falcon (*Micrastur semitorquatus* – a first for me), red-tailed and roadside hawks and caracaras. In a pool were two female Californian sea lions. There were several large, simple enclosures for two emus from Chapultepec, a male American bison, a lot of llamas (and some hybrids), many collared peccaries and a female white-lipped peccary, 1.2 white rhinos, three male giraffes (a father and his sons), two female Asian elephants (Chacha and Ciba, about 35 to 40 years old, both from a Mexican circus, where Ciba had killed a trainer), many white fallow, white-tailed and sika deer, an old pair of American wapiti, defassa waterbuck, brindled gnus, nilgai, a female yak, aoudads, and two male Mexican porcupines. A small pool housed three Morelet's crocodiles and many turtles. As in Lima, I saw wild hummingbirds. Finally, in the quarantine area were many, mostly old, animals, including

a polecat, a very old female rhesus macaque and a pair of hamadryas baboons, the founders of the zoo's colony.

### Zoológico Zacango, Toluca

Toluca is about 63 km west of Mexico City, and Zacango Zoo is about a twenty-minute car drive south of Toluca. The city has half a million people and stands 2,670 metres above sea level; at this height the climate is quite cool. The zoo was opened in 1982, with a little amusement park; it has an area of 32 hectares and holds approximately 1,600 animals of about 190 species (mammals, birds, reptiles, fishes and insects). There are 33 staff, and it had around 700,000 visitors last year. It is an attractive park with very fine tall trees, but is rather too far from the city, because the land (a 16th-century ranch) was donated. None of the zoo staff knew much English, but luckily for me a boy named Dennis, born in Toluca but now living in Dallas, was staying with his grandparents on vacation and working as a volunteer at the zoo, so he was able to translate into English for me.

In the primate section, grass enclosures with rocks at the back house a wild-caught female gorilla about 18 years old (at the zoo since 1986) and a pair of adult orang-utans. The gorilla takes turns with some chimpanzees in the same enclosure. (The management would like to find a mate for the gorilla, but I was unable to help with this.) Other animals nearby were black spider monkeys (on an island), capuchins, savanna and Campbell's guenons, hamadryas baboons, two mandrills, polecats, one binturong, raccoons, coatis, lions, tigers, a male Kodiak and two grizzly bears from U.S. zoos (at first most of the zoo's animals came from Los Angeles or Texas), pumas, leopards, jaguars, and a pair of Mexican wolves (the female pregnant) in a large enclosure. A pair of cassowaries in a large grass enclosure had laid four eggs. On a large pond were flamingos, many ducks, swans and geese (including one Hawaiian goose). Three golden eagles and two caracaras have not reproduced because they share a single high exhibit. Two semicircular enclosures hold pheasants, many amazons, macaws, cockatoos, little blue herons and one Louisiana heron (*Egretta tricolor*). There were emus in an open enclosure, and a big walk-through aviary for Mexican ducks, curassows and parrots. A reptile house displayed many insects, fishes and reptiles, including many venomous snakes.

There were two enclosures for Asian elephants. In one was a pair, Ted, a tusked bull about 50 years old, and Bee, a female of about 60; in the other was a lone tuskless bull, Ramos, about 50 years old. All three were donations from a Mexican circus, and had narrowly escaped being destroyed because they killed their trainer and another person. (I am not sure that the ages given above are correct, but that is what I was told.) Two bongos, a father and son, are probably the only ones in Mexico. A very large African savanna exhibit had Grant's zebras, ostriches, blackbuck (not, of course, an African species), defassa waterbuck and four giraffes, including one born two weeks earlier. There was a pool for common hippos, with a calf born on 3 July 1998. A female white rhino was with her son, Jimmy, born in April 1984. Various fenced and open enclosures held llamas, fallow, sika and red deer, American wapitis,

Watusi cattle, yaks, African and five dwarf buffaloes, nilgai, addax, scimitar-horned oryx, sable antelopes and aoudads.

The old 16th-century ranch house is now a museum, which displays stuffed animals, mostly from the zoo, including wart hog, bongo and a male white rhino (Jimmy's father). The animal clinic is good, and the quarantine area had jaguarundi, two young jaguars, a pair of lions, tigers, an old American black bear, two black-handed spider monkeys, kinkajous, a toucan and a female woolly monkey, most probably *Lagothrix l. lagotricha*, said to have come from a laboratory in Mexico in 1988 and possibly the only animal of this species in a Mexican zoo.

### Africam Safari, Puebla

Puebla is about 110 km east of Mexico City; it has a population of about two million, and is 2,160 metres above sea level. I was again lucky to find a guide, a young lady named Dagmar whose parents are from Germany, who works as a biologist at Aragón Zoo; she was visiting Puebla with a party of 38 students. The Africam Safari was founded in April 1972, when a private collector, Carlos Camacho, decided to open his collection to the public. (The name 'Africam' was formed by blending 'Africa' and 'Camacho'.) Carlos was killed by tigers in 1976, but the safari park has remained in private ownership. It has about 300 staff and around 2,300 animals on a 200-ha site, and received about a million visitors in 1998.

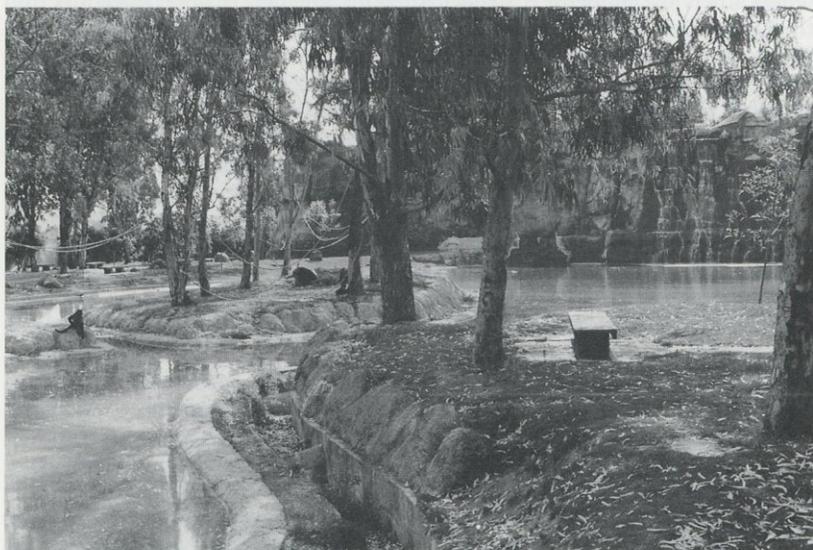
Dr Marco Antonio Benifez, a veterinarian, showed us the quarantine station, clinic and kitchen. In the off-exhibit quarantine area were a pair of Andean condors (from Buenos Aires Zoo), golden eagles, a palm cockatoo (confiscated), several macaws, Patagonian conures etc. Going by bus through the big 'Tanzania' section we saw ostriches, eight giraffes, elands, defassa waterbuck and nilgai (unfortunately not an African species). The next section was an international area for flamingos, crowned cranes, macaws, llamas, guanacos, Scottish and Watusi cattle, water buffaloes, an impala, mouflons, aoudads and capybaras. Two separate enclosures held a pair of maned wolves (both from Prague Zoo, the female born there and the male born in Munich) and a large breeding group of Mexican military macaws. Four white rhinos, five Chapman's zebras and brindled gnus were in the 'Botswana' section. A female Asian elephant, Jeep, had lived alone in her enclosure since 1972. There were many free-ranging lions in the 'Uganda' section; Marco told me that the park's carnivores need 400 kg of meat every day. A section called 'Bakuli' had many white fallow, axis and sika deer. (I don't know what this name refers to.)

Back on the bus, we saw three addax, three scimitar-horned oryx, and (in the 'Mexico' section) American white pelicans in an enclosure with two American black bears (which I was sorry to hear have been de-clawed) and white-tailed deer. Then came the Asian section, with white and normal tigers, water buffaloes and sika deer. We walked past enclosures for three hippos, eight chimpanzees and one orang-utan, and then took another bus to the American section, with bison and wapitis. A section named 'Captain Camacho' had several animal exhibits as well as shops, a little museum with stuffed animals, and a monument of the founder, Carlos, with a tiger. The animals in this section were two emus, three white rheas, flamingos, pheasants, amazons, macaws, a blue crowned

pigeon, a rhinoceros hornbill, hamadryas baboons, a male giant anteater from Buenos Aires Zoo (with a female due to arrive the next week from Venezuela), large hairy armadillos, bobcats, tigers, red pandas (from a Japanese zoo), Mexican wolves, striped hyaenas, maras, two nice artificial dark dens for Egyptian and Jamaican fruit bats, crocodiles (with underwater viewing windows), and two islands for savanna and squirrel monkeys.

### Zoológico Guadalajara

Guadalajara, the metropolis of Jalisco state, is about 470 km north-west of Mexico City; it has 5.5 million people (the second biggest city in Mexico) and stands at an altitude of 1,570 metres. The new zoo opened in March 1988 and has an area of 40 ha, plus 150 ha in reserve (mainly poor trees and a rocky valley with scrub). It has around 2,300 animals of about 370 species (mammals, birds, reptiles, fishes and insects), and 200 staff; last year there were about one million visitors. There are many snack services, and the zoo looks well maintained.



Islands for spider monkeys at Guadalajara Zoo. The nocturnal house is inside the artificial rock in the background of the picture. (Photo: Richard Weigl)

After the nice new Mexican-style entrance, the first area was an 'Australian Village' with a big walk-through aviary for 35 rainbow lorikeets; many of the birds will perch on visitors' arms and hands when offered a small cup of fruit nectar. Nearby was a newly-built enclosure ready for two koalas which were to come for three months on loan from San Diego. Black-handed spider monkeys were on some large islands with high natural trees. Nearby stands a great artificial rock with a waterfall, and inside this rock is the nocturnal house, opened in 1997, with 19 glass-fronted exhibits, well landscaped in old Mexican, 'western'

style. The animals here included some nocturnal insects, barn owls, a female greyish mouse-opossum (*Marmosa canescens*) from Colima south of Guadalajara (which looked like an Australian dunnart), great horned owls, milk snakes (*Lampropeltis triangulum*), grey foxes (*Urocyon cinereoargenteus nigrirostris*), bobcats (*Lynx rufus escuinapae*), jaguarundi, cacomistles (*Bassariscus astutus*), about 40 vampire bats (*Desmodus rotundus*), ocelots, boas, raccoons, basilisk rattlesnakes (*Crotalus basiliscus*), about 40 Jamaican fruit bats, nine-banded armadillos, coatis, two hooded skunks (*Mephitis macroura*) and two large American opossums (*Didelphis marsupialis*).

Now we went to the older part of the zoo. There were many flamingos (only one a Chilean) with a nest area, and a circular aviary for two keel-billed toucans. Everywhere I looked were beautiful free-flying great-tailed grackles (*Quiscalus mexicanus*), which I was told are very common here, and also black vultures. Next to a hippopotamus enclosure stood a big shelter, part of the education area opened in October 1998. Here were some simple exhibits for black-eared marmosets, cotton-top tamarins, a squirrel monkey, 1.2 diana monkeys (from Monkey Jungle, Miami), vervet monkeys (*Chlorocebus aethiops pygerythrus*), crab-eating macaques, kinkajous (*Potos flavus chiriquensis*), ocelots, a greater grison (*Galictis vittata*) and a male tayra (*Eira barbara senex*). A nice large enclosure housed three Aldabran giant tortoises. A pair of polar bears had a large enclosure with underwater viewing windows, but had to be kept apart as the male, Chukchy, had killed two other females. Two circular grassed enclosures held a male American black bear and 1.3 gorillas, the breeding pair Chato and Chiquita, who came to the zoo in 1989, and their two daughters, Faustina (born 21 March 1994) and Yari (9 April 1998), both mother-reared.

Two fenced enclosures had two male Mexican wolves and a big group of Nubian ibexes. A big amphitheatre, seating about 3,000 people, is used for a bird and reptile display. Then came three very large enclosures for American wapitis, American bison, and scimitar-horned oryx in with three female Thomson's gazelles. A children's zoo had llamas, goats, baby white-tailed deer and lechwe, and various large glass cages with two two-toed sloths in with common marmosets and a young male black howler (*Alouatta pigra* - confiscated, but due to be released in Chiapas), four-toed African hedgehogs (*Atelerix albiventris*), fennec foxes, and a pair of pygmy marmosets with three babies. I was allowed to play with a black panther cub (born 6 March), twin ocelots (born 28 February) and a female striped hyaena (born 26 February).

A number of fenced, natural enclosures held two rheas, a pair of dromedaries with a young one, a male nyala (born at San Diego Wild Animal Park), a pair of brindled gnus, a female dwarf buffalo (one of many herbivores brought in from the U.S.A.), elands, Grant's zebras, two subadult female African elephants; a female white rhino, Soraida, about 31 years old, with her daughter born in 1993, defassa waterbuck, 1.4 giraffes (the breeding bull imported from Japan ten years ago), a female impala, and a pair of sarus cranes, the male on loan from Africam Safari, who it is hoped will breed.

From the zoo terrace there was a fine view of the large woodland area, which runs down to the Rio Grande de Santiago river (unfortunately very

polluted). Here were three aviaries with northern helmeted curassows (*Pauxi pauxi*), great curassows (*Crax rubra*) and two highland guans (*Penelopina nigra*), which are found from southern Mexico to northern Nicaragua. Four large open enclosures held lions, jaguars, black panthers and pumas. In several simple circular aviaries were large numbers of macaws, conures, amazons, thick-billed parrots, cockatoos, collared aracaris, chachalacas, a female Sulawesi hornbill (*Aceros cassidix*), a Hartlaub's turaco (hatched at Africam Safari), a turkey vulture (*Cathartes a. aura*), black vultures, Mexican grey hawks (*Buteo nitidus plagiatus*), Harris' hawks, a king vulture, a pair of golden eagles, and a pair of red-tailed hawks (*B. j. hadropus*). These last came to the zoo in 1987 from Agua Azul, a small collection in a park in the city. Rocio Robles Valencia, the zoo's registrar, told me that Agua Azul kept no records, so it is impossible to know the age of these hawks, and many other animals transferred to the zoo from there; but she now keeps all the zoo's data with ISIS.

I next saw two high pyramid-shaped walk-through aviaries with ponds and lots of plants for several species of bird, including one white-faced ibis (*Plegadis chihi*). Then came some simple exhibits for rhesus macaques, De Brazza and savanna guenons, mandrills, a male brown capuchin, hamadryas baboons, chimpanzees and a female hybrid orangutan, Buttons (born at Fort Worth Zoo, Texas, in March 1972). A large open enclosure held tigers, and a circular exhibit had caracaras, bobcats, coyotes (*Canis latrans vigilis*), and a pair of white-tailed hawks (*Buteo albicaudatus hypospodius*). A big circular reptile house included an outdoor enclosure for crocodiles; all the inside exhibits had very nice artificial trees, rocks, wall paintings and live plants. There were also some insects, but I was especially interested in a big *Heterophrynus* sp. spider, said to have been there for two years. Underwater viewing windows showed two anacondas with big fishes. Five albino Asian cobras born in May 1996 are still there; their mother came from the U.S.A. There was also an albino Mexican gopher snake (*Pituophis deppei*), which has been here since 1989.

Outside again, I saw two large enclosures for a big herd of fallow deer and a mixed group of nilgai and blackbuck. A large valley enclosure had many sika deer and a female Turkmenian markhor (*Capra falconeri heptneri*) born at the zoo in 1990. At Guadalajara zoo. Next were a breeding pair of striped hyaenas (the male said to have been born in a Cuban zoo and the female born at Zoofari, a small zoo in Taxco Guerrero, Mexico), and Heather, a female wolf of the subspecies *C. l. columbianus*, who was captive-born in Alaska in 1992, and was donated to the zoo in 1994 by an American woman who lived in Chapala. There were several circular cages for gamebirds (ocellated turkeys, a male Siamese fireback, a pair of great argus pheasants and a pair of Swinhoe's pheasants). Some large mixed-species enclosures had collared peccaries with white-tailed deer (*O. v. sinaloae*); llamas with capybaras and red brockets; a pair of ostriches with a large group of red lechwe (*Kobus l. leche*); and emus with black swans. In an open enclosure were a breeding pair of Morelet's crocodiles (their young were in the reptile house). A large pond had an island for black-handed spider monkeys, and many ducks, geese and swans.

In the quarantine clinic I saw a second young king vulture (hatched at the zoo on 10 February 1999), macaws and two chestnut-mandibled

toucans (*Ramphastos swainsonii*). The off-exhibit breeding and quarantine areas have outdoor enclosures, unlike those in European zoos. Here I saw two Cape Barren geese from Leon Zoo, two pairs of king vultures and the first young one hatched here in 1997, crested guans, macaws, amazons, thick-billed parrots, two Mexican emerald toucanets, two West African crowned cranes (a very prolific pair who came from Agua Azul, where they probably arrived in 1975 – many of their offspring of different ages are still at the zoo), two coyotes, a female striped hyaena (hand-reared), bobcats, margays, many jaguars (some of them black), a female tiger and a young male giraffe (also hand-reared) born on 13 February 1999.

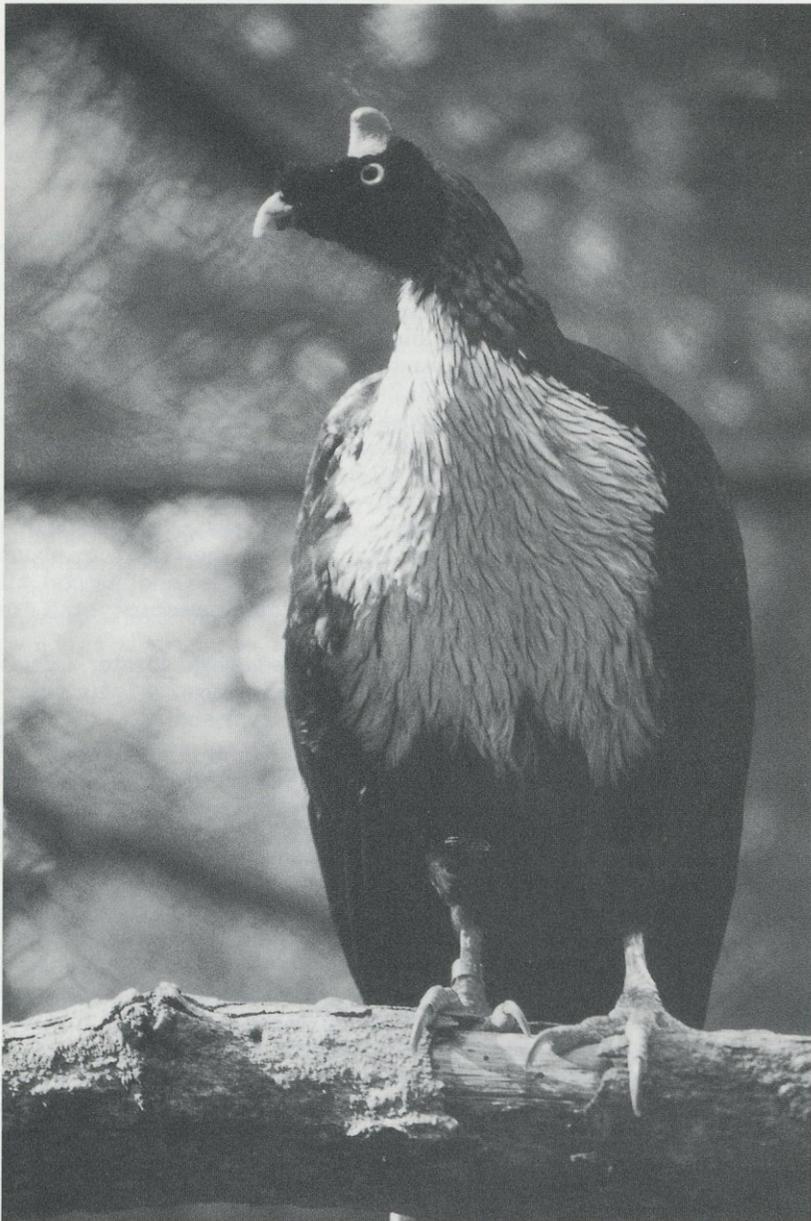
## ZOOMAT, Tuxtla Gutiérrez

Tuxtla Gutiérrez is the capital of Chiapas state in the far south of Mexico. It has a population of 450,000 and stands 530 metres above sea level. The zoo's founder was Professor Miguel Alvarez del Toro; in 1942, when the state government of Chiapas was looking for a director to develop a regional zoo, he successfully applied for the position and remained until his death in 1996. ZOOMAT (the acronym stands for Zoológico Regional Miguel Alvarez del Toro) is one of the few zoos I have visited anywhere in the world which stands among natural forests, native flora and watercourses. The 30-ha grounds are very well maintained, and for me the only unattractive feature were the big red litter bins which stand around everywhere. In 1998 the zoo had 500,000 visitors (entry is free). In 1942 it had 20 animals, but now there are about 1,200, of around 220 species (mammals, birds, reptiles and insects), all belonging to the local fauna of the Chiapas region. The security staff are all women, in elegant red uniforms.

I had a brief chat about the animals with the general curator, Carlos Alberto Guichard Romero, who has worked here since 1987. He unfortunately knows only a little English, but was very friendly. (In his office I was pleased to see a poster from Frankfurt Zoo of a spectacled leaf monkey with her infant.) On a short walk through a forested area I saw many free-ranging plain chachalacas (*Ortalis vetula*) in a very large enclosure for a big group of collared peccaries. While I was standing there, a great many leaves fell around me, and when I looked up at the tall trees I saw a free-ranging group of black howlers. (A second similar group live near the bird of prey aviaries.) I then passed enclosures with greater grisons and Mexican red brockets (*Mazama americana temama*), and aviaries with scarlet macaws, two keel-billed toucans, highland guans and three mottled owls (*Strix virgata*). There were many free-ranging great curassows, crested guans and Mexican agoutis. I was told that approximately 66 species of bird live free in ZOOMAT.

After an enclosure with a big group of coatis, I came to a number of aviaries housing white-throated magpie-jays (*Calocitta formosa azurea*), collared aracaris, emerald toucanets (*Aulacorhynchus prasinus*), West Mexican and white-bellied chachalacas (*Ortalis poliocephala* and *O. leucogastra*), and horned guans (*Oreophasis derbianus*). I was especially interested to see these guans for the first time. The zoo has a male and two females in two aviaries, but unfortunately not one chick has yet been

bred, though the species has been kept here since 1975. These rare birds were rediscovered in Mexico in 1973; they live only in the cloud forests between 1,600 and 3,350 metres in south-eastern Mexico (southern Oaxaca and Chiapas) and western Guatemala.



A horned guan at ZOMAT, Tuxtla Gutiérrez. (Photo: Richard Weigl)

Next I saw jaguars in a very large circular enclosure, and a pair of Baird's tapirs in a nice large enclosure with a valley. (This species ranges from southern Veracruz and southern Oaxaca in Mexico through to western regions of Colombia and Ecuador.) There were five big enclosures with tall trees and rocks for ocelots, jaguarundis, pumas (*P. c. mayensis*) and black jaguars, a large open enclosure for two tayras, and an enclosure with rocks and many trees for two white-lipped peccaries. More aviaries held two great horned owls, a pair of crested guans (the female brooding), ocellated turkeys, many military macaws, a single spectacled owl (*Pulsatrix perspicillata saturata*, here since 1982, said to be from Lacandona forest in Chiapas), a blue-crowned motmot, three white-capped parrots (*Pionus senilis*) and a striped owl. A circular reptile museum had many exhibits with nicely-made model reptiles looking almost like the real thing. In an enclosure with small underwater viewing windows was a male South American river otter (*Lontra longicaudis annectens*).

After some margays and a female bare-throated tiger heron (*Tigrisoma mexicanum* – here since 1982), I reached a nice big aviary with many plants and running water, containing a pair of resplendent quetzals (*Pharomachrus m. mocinno*) with very fine long tails. Two very large open enclosures housed big groups of agoutis (*Dasyprocta mexicana* and *D. punctata*). Another big aviary held many scarlet macaws, a large fenced enclosure had a big herd of white-tailed deer, and two northern tamanduas had an enclosure with many climbing trees. A beaded lizard was in an open, rocky enclosure, and nearby was a small reptile house with many snakes and lizards, and two open enclosures for iguanas and tortoises. Two pelicans (one brown, one American white), an American darter and other birds were on a large pond, and in the middle a lot of free-flying Mexican black vultures were perched on a dead tree. Next came five high aviaries for birds of prey – a grey hawk, a great black hawk, three white hawks of the white-backed race (*Leucopternis albicollis ghiesbreghtii*), two nice collared forest falcons (*Micrastur semitorquatus naso* – the northern subspecies, which ranges from central Mexico south into Colombia and Ecuador), a king vulture in with caracaras, and a female ornate hawk-eagle (*Spizaetus ornatus vicarius*) from Yucatan. Formerly a female harpy eagle lived here for about 41 years until her death in 1990. (A few wild harpy eagles were seen in December 1998 in Lacandona forest, Chiapas.)

I now passed enclosures for coyotes, raccoons and grey foxes, and two common snapping turtles in a little pond. Nearby was a free-ranging troop of Mexican black-handed spider monkeys (*Ateles geoffroyi vellerosus*). There were many more aviaries with amazons, conures and a russet-crowned motmot. A circular house for Mexican invertebrates had many species unfamiliar to me, including another *Heterophrynus* spider and ant lions (*Myrmeleon* sp.) with their sand funnels. A nocturnal house, also circular, had a mother grey four-eyed opossum (*Philander opossum*) with five young, who were captured 15 days earlier in the zoo. Other animals in this house included many Jamaican fruit bats, two pacas, kinkajous, two hog-nosed skunks (*Conepatus mesoleucus*, a species which is found from the southern U.S.A. to Nicaragua), a hooded skunk (*Mephitis macroura*), a spotted skunk (*Spilogale putorius*), an eastern cottontail (*Sylvilagus floridanus*), and six Central American cacomistles (*Bassariscus*

## LETTERS TO THE EDITOR

Dear Sir,

I feel that I must comment upon the piece that appeared in the Zoo News section of the November 1999 issue (*I.Z.N.* 46:7, p. 442) concerning Rome Zoo and my new post there.

The piece contained a number of inaccuracies, which the author would have been aware of had he taken the time to speak to me, or any of the other senior animal staff, and not just to quote from the media, which in Italy appear to have greater than normal selective hearing. When he mentions my desire to export the lone African bull elephant, there seems to be the feeling that the last thing the zoo needs is to lose 'more' animals. This is in fact one of the main problems for the new management, as there are far too many animals in the collection. No sort of population control has been applied until recently, hence many of the herds and groups are far too large for the accommodation available to them. The movement of the African bull is actually an EEP recommendation, as is the eventual acquisition of an Asian bull. The two younger female Asian elephants are 28, not 30, which may be near the end of their potential reproductive capability, but as they are unrepresented wild-caught founders they should not be written off, and there are other avenues open to their being mated sooner that do not necessitate the immediate arrival of an adult Asian bull in Rome.

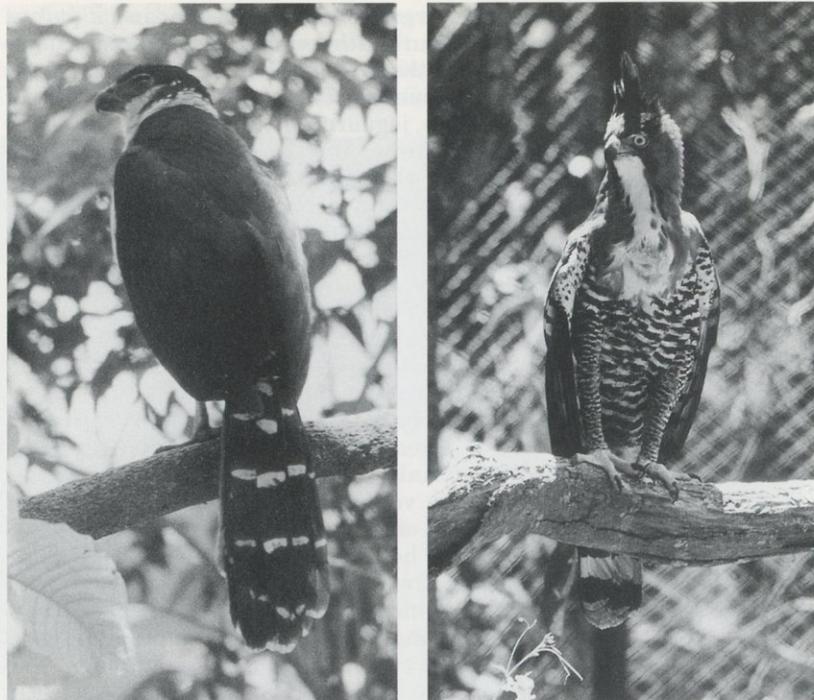
I was appointed as *Zoological Director*, and this was made clear to all. As for the 'administrative director and the scientific advisor' remaining in post, I fail to see the relevance, particularly as I have an almost totally free hand with the manage-

ment of the animal collection, its staff, and the animal facilities, both existing and planned. Which is exactly why I was appointed.

With all due respect to the residents of Rome, whether they can see any change in the quality of the animals' lives compared to when the zoo was run by the municipality is really not relevant, especially when the problem of public feeding is as rife at Rome today as it was in London in 1967 when they instituted the no-feeding policy. I have recently had to install a three-metre high wire fence around the ape facilities to avoid the weekend avalanches of peanuts being thrown to the apes; these have caused recent health problems in at least one chimpanzee. The fence may not look attractive to the lay person, but it certainly improves the health, and the quality of life, of those animals.

I first visited the Rome Zoo in May 1997, when it was still very much under municipal control, and quite frankly the place was disgusting. There was a single female Asian elephant whose small concrete yard was totally covered in a deep layer of faecal material. There was not a single rope in any primate enclosure, and, as I was to discover in detail, there was absolutely no sign that any maintenance had been done to any animal facility in years, if not decades.

Prior to my arrival, but following the appointment of a new curatorial team and veterinarian, and an almost total replacement of the keeping staff, the animal enclosures were cleaned properly. Animals with long-term chronic illnesses that had been locked away off-exhibit were treated, and in some cases euthanasia was the only, long overdue, option. Cages were repurched, diets were reviewed and



Collared forest falcon (left) and ornate hawk-eagle (right) at ZOOMAT. (Photos: Richard Weigl)

*sumichrasti*). The curator of the nocturnal house, Luis Sigler Moreno, told me that the cacomistles have produced 23 offspring in six years from two mothers, and about 65% have been successfully reared.

A walk-through aviary had many species of Mexican birds, including some nice long-tailed manakins (*Chiroxiphia l. linearis*), which have lived here since 1990. From the visitors' footpath there was a fine view of a large pond with tall trees for white ibis, ducks and roseate spoonbills; since 1992, two spoonbill chicks have been artificially hatched and hand-reared by the curator of birds, Graciela Velasco Santiago. She was able to provide me with some interesting data on longevities of birds; for example, one male spoonbill has been there since 1982. Finally there were three good open enclosures for Mexican crocodylians (brown caiman, Morelet's crocodile and American crocodile).

Jacqueline Gallegos Michel of the zoo's veterinary staff also gave me a great deal of historical longevity data, and at the end of my visit she gave me an old poster depicting a harpy eagle, which I like very much.

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