



BUFFON'S MACAW IN ECUADOR: the urgency for conservation action

By David Waugh

The World Parrot Trust (WPT) wishes to provide support for improved conservation action for Buffon's Macaw *A. ambigua* and, rather than stretch effort and resources on action throughout its entire geographical range, it has decided that the best option initially is to concentrate on Ecuador. In this choice, the factors to consider were: a) that a distinct subspecies, *guayaquilensis*, is claimed to exist in Ecuador and nowhere else within the geographical range, b) that the forests of western Ecuador are being cleared at a rapid rate (e.g. Dodson and Gentry, 1991; Parker and Carr, 1992), c) that infrastructure for action might be better developed in Ecuador. Given that some start-up funds were available from the International Aviculturists Society, the one obstacle to immediately initiating a conservation programme was a lack of detailed information about current status, threats, existing conservation action focused on *A. ambigua*, the players involved and which area, south-west or north-west Ecuador, should take priority. Thus, in October 1994 the WPT sent David Waugh to investigate the situation at first-hand, and these are his findings.

Introduction

Buffon's Macaw *Ara ambigua* has an apparently discontinuous distribution, from eastern Honduras to western Colombia, appearing again in western Ecuador. According to Forshaw (1989) and Meyer de Schauensee (1966) the nominate subspecies

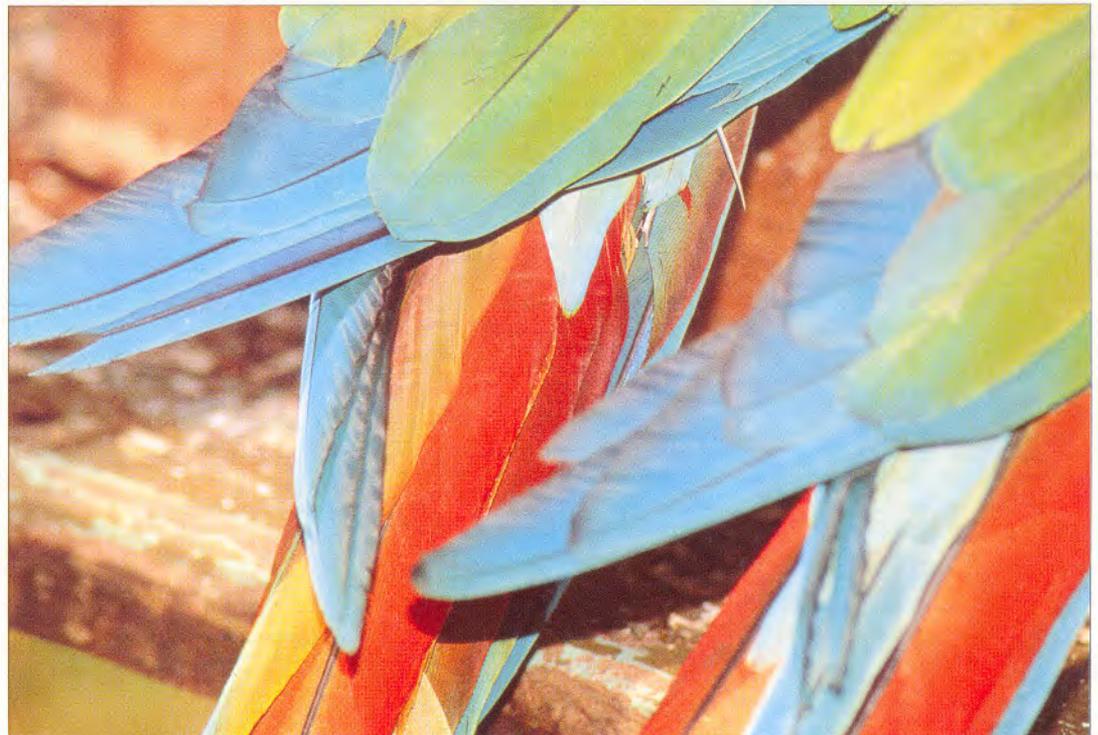
occurs north of this distributional gap and the subspecies *guayaquilensis* occurs in Ecuador. Ejeldsa *et al* (1987) suggest that *guayaquilensis* is not a valid race, and furthermore that *Ara ambigua* and *A. militaris* may be conspecific. Latterly, Toral (1992) has suggested that the nominate race of *A. ambigua* occurs in north-western Ecuador and that *guayaquilensis* occurs in the south-west. Despite these uncertainties, all contributors are agreed that what is currently called *A. ambigua* occurs entirely in the lowlands while *A. militaris* is primarily montane. This article refers to Buffon's Macaw in south-west Ecuador as *guayaquilensis* and in north-west Ecuador only as *A. ambigua*.

Irrespective of taxonomic status, this lowland macaw appears to be under considerable human pressure. Large-scale clearance of lowland forests appears to be accelerating, this being especially noticeable in Ecuador, and with the opening-up of the forest comes the wave of other detrimental activities. Legal protection in various countries of its geographical range appears either too weak or insufficiently enforced.

The forests of western Ecuador are among the most severely threatened of the world's ecosystems (Myers, 1988; Dodson and Gentry, 1991; Parker and Carr, 1992). There has been an explosion of the human population in Ecuador, from 4 to

10.2 million between 1960 and 1980, and it continues to increase at a rapid rate. More than 90% of Pacific lowland and foothill forest below 900m has been converted to agriculture, especially plantations of bananas, oil-palms, cacao, coffee, soy-beans and rice (Dodson and Gentry, 1991). Dodson and Gentry (1991) estimated the aboriginal forests of western Ecuador at nearly 80,000 sq. km, but now less than 6% remain and the coastal forests have been predicted to disappear within the next 20 years.

There is now only one large, relatively uninterrupted area of forest, which is north of the Rio Guayllabamba in the provinces of Esmeraldas, Imbabura and Carchi, and includes two forest reserves



This is the spectacular plumage of *Ara ambigua guayaquilensis*.

Photo: David Waugh.

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Effect of timber felling in wet tropical forest, San Juan, Esmeraldas, Ecuador.

Photo: David Waugh

totalling about 280,000 ha, the Reserva Ecológica Cotacachi-Cayapas (Cotacachi-Cayapas Ecological Reserve). Otherwise there are now just scattered fragments in the coastal hill range. The coastal and foothill forests of western Ecuador have a high biodiversity and endemism. Dodson and Gentry (1991) estimated about 6,300 species of vascular plants in the region, of which 20% (about 1,200 spp) may be endemic. There are more than 800 species of birds in the region, including 40 species and 140 subspecies restricted to the dry forests and scrub habitats of south-west Ecuador and north-west Peru, the so-called Tumbesian centre of endemism. There are 30 species of birds confined to the humid evergreen forests of north-west Ecuador and south-west Colombia, the Chocó centre of endemism. There are similarly high levels of endemism in other faunal groups (Parker and Carr, 1992)

Protection status of habitat and *A. ambigua* in Ecuador

About 15% of the national territory of Ecuador lies within government protected areas and Bosques Protectores (Protected Forests), some of this area being comprised of habitats other than forests, e.g. páramo. INEFAN (Instituto Ecuatoriano Forestal y Arcas Naturales - Ecuadorean Institute of Forests and Natural Areas) has jurisdiction over these areas and the patrimony of the nation's forests in general. As in numerous other countries, the policies and work of INEFAN to maximise protection of forests outside of officially protected areas sometimes conflict with those of a different agency of government,

INDA (Instituto Nacional de Desarrollo Agrario - National Institute for Agrarian Development), formerly IERAC (Instituto Ecuatoriano de reforma Agraria y Colonización - Ecuadorean Institute of Agrarian Reform and Colonisation). In the days of IERAC, the law stated that a colonizer must clear at least 50% of forest on his land, within five years of signing the deeds, to retain possession of it. Any land-owner can make an application to INEFAN to obtain Bosque Protector status for his land (meaning no obligatory forest clearance) and until now most applications have been granted (F. Coello, pers. comm). Like most similar government agencies, INEFAN lacks resources to effectively police the government protected areas.

As a party to CITES, Ecuador gives protection to any *A. ambigua* that are found being exported from the country. The Ley Forestal de Ecuador (Forest Law of Ecuador) provides penalties for illegal hunting and keeping in captivity of protected species, but enforcement of this law solely by the presiding authorities has been weak, and recent confiscations have proven difficult to complete with birds held on private land. Fundación Natura, a leading non-governmental organisation (NGO) in Ecuador, together with military personnel and INEFAN, the government agency responsible for enforcement of the Ley Forestal, has been attempting to confiscate *A. ambigua* in the Guayaquil area. INEFAN also provides badges to guards of some protected areas, including Bosques Protectores, making them Inspectores de Vida Silvestre

Honorarios (Honorary Wildlife Inspectors) and thereby giving them more force.

The southern population of *A. ambigua* in Ecuador

Historically the southern population of *A. ambigua* in Ecuador is considered to have inhabited dry and semi-dry to moist forests throughout the coastal cordillera. Now its recent sightings have been confined to Machalilla National Park, the Chongón-Colonche Cordillera (in 1991 - Parker and Carr, 1992 and specifically at Las Balsas in 1993/94 - E. Horstman, pers. comm.). These rare sightings are undoubtedly of very small, relictual populations, and thus it can be stated that the form considered to be *guayaquilensis* is seriously depleted.

The major threat is continuous clearance of forest for small and large-scale agricultural development. This is faster outside of protected areas, but also occurs in reserves that are not effectively policed. Both absolute loss and fragmentation of the forests cause nest-site and food shortages for *guayaquilensis* and expose active nest-sites to the robbing of chicks. Active nests are also more prone to disturbance from human activities other than outright nest-robbery. Changes in traditional local community land-holding patterns are a strong contribution to habitat destruction.

Conservation action and the role of Bosque Protector Cerro Blanco

As regards current conservation action, the under-resourced government authorities appear willing to implement some joint ventures with private and

voluntary sectors, for example to continue with Fundación Natura the confiscation of illegally held birds. Furthermore, Cemento Nacional, the country's largest cement-producing company, has formed Fundación Pro-Pueblo which is working jointly with Fundación Natura (in a project called Proyecto Aspiazu) to map all remaining forests, and to protect forested areas near to Manglaralto (1° 49'S, 80° 44'W) using the community-owned forest approach.

In another initiative, Cemento Nacional has formed another foundation, Fundación Pro-Bosque, which runs the Bosque Protector Cerro Blanco (BPCB), a private reserve on land owned by the parent company. The BPCB is situated at the eastern extreme of the Chongón Hills (2° 0'S, 80° 02'W) and appears to have all the advantages which come with effective wardening that forests elsewhere in the region do not have. Located only 14 km from Guayaquil, Ecuador's largest city, the BPCB is ideally placed to receive visitors, especially school groups, and Fundación Pro-Bosque has capitalized on this opportunity for conservation education. The BPCB obviously has a primary objective to conserve the dry tropical forest within the area, which incorporates a programme of reforestation with native species. It also has a special

focus on the conservation of some of the more endangered species that occur in the reserve, none more so than Buffon's Macaw, subspecies *guayaquilensis* which the BPCB has adopted as its symbol.

Biological attributes and management of the BPCB

From about 15 to 415m in altitudinal range, the BPCB has been described (Parker and Carr, 1992) as having a moist forest climate over porous limestone, with a related low water-table, resulting in water-stress which has selected for deciduous high-tolerance plants or deep rooters. This was probably moister originally, but a considerable time ago it was selectively-logged and most of the largest trees were cut. The commonest tree in patches of older forest is the Tillo blanco *Brosimum alicastrum*, but the front slope is dominated by *Ceiba Ceiba trichistandra* and the black ridges by *Pigío Cavanillesia platanifolia* with hardly any overlap. The latter two are large trees with little economic value. There are 130 bird species recorded for the reserve, 37 (28%) of which are Tumbesian endemics, and among the 44 mammal species listed are two large carnivores, the Jaguar *Panthera onca* and the Puma *Felis concolor*.

Originally 2,000 ha in area, the BPCB has recently been extended



Buffon's Macaw, *Ara ambigua guayaquilensis*.

Photo: David Waugh.

through the purchase of an adjoining 1,500 ha and Cemento Nacional/Fundación Pro-Bosque is trying to persuade various neighbouring land-owners to sell their land so as to increase the overall reserve size even further. This is also one means to help secure the current northern boundary of the reserve, which is threatened by subsistence farmers who are progressively invading the land to the north and clearing forest principally to grow maize. Thus, Fundación Pro-Bosque deploys eight forest guards to daily patrol the reserve boundaries, and only with this level of vigilance is the BPCB secure. A typical family which has invaded a patch of land to grow maize makes on average each year about US\$600 equivalent, with US\$1,000 as a maximum. Using this knowledge, Fundación Pro-Bosque has taken a pragmatic approach to dealing with the invader problem. It has begun to recruit campesinos operating at the reserve border to help with the reforestation programme and the maintenance of paths within the reserve. By paying them more than the average local wage for this type of work, Fundación Pro-Bosque is embarking on a route of demonstrating to the locals that helping to conserve is financially worthwhile.

Situation of *guayaquilensis* in the BPCB

From spasmodic sightings in recent years it was known that *guayaquilensis* still survived in the BPCB. In 1994 one of the forest guards found a pair using a nest cavity in the trunk of a large broken-off *Pigío* tree. Immediately a field look-out and guard camp was established to provide round-the-clock protection of the nest-site. This paid off and two young fledged on 1 October. The 24-hour camp is still running as a message

to any would-be nest-robbers that there is a continuous presence there.

Fundación Pro-Bosque has known that another active nest-site existed outside the reserve boundary, but the nest-tree recently toppled (after the area was burned). It now transpires that there have been two active nest-trees (with the implication of two separate pairs) both of which have now fallen. If this is the case there could be nine birds (three pairs, a singleton and two 1994 young) in the BPCB, perhaps more.

As regards captive birds, there is potential to use them very effectively for education, possibly captive breeding, and possibly release into the reserve. Fundación Pro-Bosque has the option to set-up a Buffon's macaw captive centre within the BPCB, and the donation of captive *guayaquilensis* from a rescue in Ecuador. It seems appropriate that when other conservation actions are more advanced for wild *guayaquilensis* in the reserve, the BPCB could have a productive centre for captive macaws.

In regard to the most effective use of funds and other aid for the conservation of *guayaquilensis*, Buffon's macaw reflects very well the situation of many other psittacids, which is that we have virtually no detail on its ecological requirements and life-cycle to confidently formulate and implement conservation management plans. To get this information, it seems to make sense right now to concentrate efforts on an area with guaranteed protection, an existing infrastructure which can greatly assist the collection of valuable field data as quickly as possible. Thus, within the BPCB, identification of other active nest-sites is necessary, as is the scientific monitoring of these



Buffon's Macaw nest in *Pigío* tree (*Cavanillesia platanifolia*). Photo: David Waugh.

nests. This information can be used in several practical ways, one being to more easily locate other suitable nest-sites, construct nest-cavities and/or provide nest-boxes of size and shape preferred by *guayaquilensis*, and place them in favoured positions. The provision of more nesting cavities is an important issue because no systematic assessment of the availability of natural cavities has been undertaken, and there may be a real shortage, especially given that the largest trees were removed from the area before it received protective status.

The other major matter of concern is to determine the average area over which a pair of macaws ranges, how this varies with season, what proportion of the area and how much time spent in it occurs outside of the BPCB boundaries, what is the variety of food plants and which ones appear to form the staples of the diet, how these vary seasonally, how much time is spent in feeding per day, and if variation in foraging time and area can identify a period of food stress during the year. If radio-tracking is not feasible, the BPCB fortunately offers an alternative because, by virtue of its hilly terrain, there are high points from which an observer can view large expanses of forest. Fire-control towers are soon to be sited at these points and could be used by the researchers and forest guards to plot the areas of use of the forest by the macaws.

There appear to be four other areas of conservation activity that could merit support: **a)** nest contents manipulation to increase productivity, in the same way that Dr Charles Munn (of the Wildlife Conservation Society) and his team have been doing with macaws in Manu National Park, **b)** the continuing integration of neighbouring campesinos into the guarding of macaws and the reserve in general by offering

inducements, at least in the short-term, **c)** the Fundación Pro-Bosque education programme focused around *guayaquilensis* and, **d)** the centre for captive *guayaquilensis*.

The northern population of *A. ambigua* in Ecuador

According to Forshaw (1989), Buffon's macaw was probably never very widespread or numerous in western Ecuador, and R. Ridgely (pers. comm.) has commented that lowland Esmeraldas State appears to be exceptionally wet for this species, and also that the preferred altitudinal range of Buffon's macaw in Esmeraldas State is between 200 and 700m. Within this altitudinal range occur some of the most precipitous slopes, more so within the Cotacachi-Cayapas Ecological Reserve, which could slow the rate of attrition of forests used regularly by the species. Ridgely (pers. comm.) estimated this population of *A. ambigua* at no more than 100, while Toral (1992) estimated 50-100 (his ranking of uncommon) from his survey, and it is certainly the case that reported sightings have been sporadic.

Despite some precipitous slopes within its preferred altitudinal range, it would appear that Buffon's Macaw is under pressure in the region because of the premium timber that these forests hold. Logging companies are active and there is probably no serious reforestation taking place. The long-time existence of the Ibarra-San Lorenzo railway line, until now the only Andes-Coast connection in the north, has resulted in widespread forest clearance either side of it, and the construction of a new road as another Andes-Coast link is inevitably being followed by settlement and a new wave of forest clearance. Further to the clearance and fragmentation of forest is the increase in hunting pressure: hunting for food is



Buffon's Macaws at the rescue centre of Dr Schlenker, Quito, Ecuador.

Photo: David Waugh

indiscriminate and widespread and macaws are considered fair game.

Conservation action for *A. ambigua* in north-west Ecuador.

Outside of any protected areas it would appear that no conservation measures operate for *A. ambigua*, and it is unlikely that hunting or live capture are ever challenged. Of the two protected areas, the CCER covers 204,000 ha within the altitudinal range 100-4,500m. The SUBIR (Sustainable Use of Biological Resources) project taking place in the CCER is a multi-year, US-AID funded project with CARE-International as the major NGO directing its operations within this reserve. The other protected area of the region is the Awa Ethnic and Forest Reserve which straddles the Ecuador-Colombia border and protects the land and resources for traditional use by the native Awa people. A feasibility study of a 26,400 ha corridor between the CCER and the Awa Reserve has recently been completed (Ortiz and Quishpe, 1993), but in practice this could be very difficult to establish and maintain, given that the new road will run right through it, and that the land in that area is already (or soon to be) parceled out into lots.

The situation in non-protected areas is exemplified by a site investigated in late October 1994 (0° 59'N, 78° 34'W - by the Río San José in the Parish of Santa Rita in the Canton of San Lorenzo) at about 200m altitude in the wet to very wet (4,000-6,000mm ann. rf.) tropical forest zone. At this site there are a range of tree species of commercial interest, principally the following: Chanul *Humiriastrum procerum*, Sande *Brosimum utile*, Chalviande *Virola* sp., Cuángare *Dialyanthera* sp., Amarillo *Persea rigens*, Guión *Pseudolmedia aggersii*, Jigua

Ocotea sp., Paco *Grias tessmannii*, Damagua *Poulsnia armata*, Guasca and Mascarey (FIPAD, 1993). On virtually all the lots of land at this site visited in October 1994 there was frenetic felling of the above commercially valuable species.

A survey of local people about the occurrence of *A. ambigua* at this site resulted in approximately half not recognising the species, and the other half stating that it occurred in the area at another time of year. Some were more specific and said that this was from March when there were fruits/seeds of the Aray tree.

Potential conservation projects in the region for *A. ambigua*

This region of Esmeraldas State presents a very different situation than that found in south-west Ecuador. The extent of the terrain, the different climatic regime and more complex forest, the lack of infrastructure, the lack of clearly defined viewing points and the more overt and rapid clearance of forest outside of the reserves all conspire to make any detailed ecological studies and conservation management much more challenging, and almost certainly more costly. The uncertainty of the status of *A. ambigua* outside and inside of the CCER makes the starting point a basic survey. On a more positive note, the SUBIR Project has started two ecotourism ventures in the CCER together with local people, and a part of future *A. ambigua* conservation could perhaps fit in with these.

Recommendations

Based on the above information it is recommended that funds and other resources are first directed to ecological studies and conservation management actions for *guayaquilensis* in south-west Ecuador, specifically starting with the Bosque Protector Cerro Blanco



Sign at main entrance BPCB, Guayaquil, Ecuador.

Photo: David Waugh

and its immediate surroundings. Potential supporters should consider the funding of ecological studies, conservation management activities including campesino incentives, educational programmes and the centre for captive macaws. The survey of the Cordillera de Colonche for additional nest-sites should be the next priority if sufficient funds become available. Concerning help for *A. ambigua* conservation in Esmeraldas State as a following priority, liaison with the SUBIR is suggested as a potentially effective way to conduct appropriate conservation work for the species in that region.

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FOOTNOTE

To complete our reports on Buffon's Macaw, we would like to remove any doubts about how to

distinguish Buffon's from the Military Macaw *Ara militaris*. In general, the Military is a little smaller, and has a smaller head. The green plumage is a duller, darker colour than the vibrant green of the Buffon's Macaw.

If in any doubt, however, look at the upper central tail feathers. Our picture shows Buffon's and Military tails side by side: the central feathers of the Buffon's are orange, those of the Military are a chestnut colour.



Buffon's Macaw.



Military Macaw.

THE ENDANGERED BUFFON'S MACAW

By Rosemary Low

The Buffon's or Great Green Macaw *Ara ambigua* is one of the most magnificent of all parrots. An imposing bird, it has a powerful head and bill, even for a macaw, and golden-green plumage. Very large, it weighs about 1,200g and most are nearly as large as Hyacinthines. (Of two pairs of each species in my care, the Buffon's

eggs are usually the larger). It has always been rare in aviculture - and in the past was often confused with the Military *Ara militaris*. Unfortunately, it is endangered due to loss of habitat and to trapping and killing.

Dr Charles Munn, renowned for his work with macaws in the wild, describes Buffon's as the "least

studied and the least known of all the large macaws". It has an apparently extensive range but it is missing from large areas and is nowhere common. There is no idea how many might survive in the wild, even in countries such as Panama and Costa Rica where much ornithological field work has taken place.

It is found from western Ecuador through some areas of western Colombia into northern Panama. From there it reaches Central America, from north-eastern Costa Rica and spreads northwards to Nicaragua and Honduras. However, except possibly in some intact forests in western Colombia and northern Panama, it meets with many problems.

In southern Honduras almost total deforestation and the use of pesticides in cotton fields have caused the virtual extermination of macaws in most areas, according to Sherry Thorn (in Clinton-

Eitniear, 1991). In Honduras (which has the highest human population growth rate in Latin America), its habitat was fragmented by the opening of two more highways during the 1980s. Conservation projects were halted there due to the war with Nicaragua. Unfortunately, Buffon's is limited to the wet tropical forest of the Caribbean slope, near the border with Nicaragua.

The war resulted in military firearms being available. As the large macaws are such noisy, conspicuous birds in flight, some may have been shot. At the end of the 1970s, thousands of peasant farmers moved into the region which this species inhabited. This resulted in part of its habitat being destroyed for agriculture and in the capture of birds for trade. According to Martinez-Sanchez (in Clinton-Eitniear, 1991), the only viable populations in Nicaragua are in the north, in Bosawas, and in the south in the lower watershed



Ara ambigua.

Photo: Rosemary Low.



Ara ambiguus at 16 & 10 days.

Photo: Rosemary Low.

of the Indio, Maiz and San Juan rivers. In Panama, this macaw is illegally captured for trade, for food and even for its feathers. These are just some of the problems which it is facing.

Recently, David Waugh, on behalf of The World Parrot Trust, spoke to Robert Ridgely about the situation in Ecuador, which he last visited in 1987. He believes that in the state of Esmeraldas fewer than 100 Buffon's Macaws survive. However, the population there may be stable. It may stretch as far north as the Colombian border; the southern limit has not been defined. The birds probably have to range widely in search of food, due to the impoverished soils of the area. They occur in the foothills, at an altitude of 200m to 700m, where the rainfall is very high. The area is difficult of access and, with its poor soils, has not encouraged settlers. Part of its range falls within the Cotacachi-Cayapas National Park - but the Ecuadorian Government is not effective regarding practical protection of what is decreed on paper to be a national park.

South of Esmeraldas, in the Chongon Hills in the state of Guayas, there is a very small population of Buffon's. It is found within the Cerro Blanco Reserve. A few birds may or may not still exist further north-west than the Chongon Hills.

The main threat to this species must be loss of habitat. Buffon's Macaw is believed to be a specialist feeder in Costa Rica and it seems likely that this applies throughout its range. There it moves around to find ripening fruits of *Lysiloma* species. It is limited to large expanses of broadleaf forest, within which it migrates seasonally. If it needs large areas of forest, fragmentation of this habitat could cause its extinction, as almost certainly happened with the Glaucous Macaw.

Although Buffon's is protected by law throughout much of its range, these laws are almost impossible to enforce. Conservation biologist Charlie Munn believes that: "Before any efforts or funds are spent trying to

conserve this species through reproduction in captivity, it probably would be much more cost effective to diagnose the conservation status of the species to determine which huge wild areas could serve best to protect this species into the future."

Munn and the macaw biologists who have been working with him in Peru believe that by learning how to use artificial nest-boxes for large macaws in intact forests, they may be able to extend the use of nest-boxes to aid the recovery of critically endangered species of tree-nesting macaws such as Buffon's (Munn et al, in Clinton-Eitniear, 1991). Since the foregoing was written, they have erected many artificial nest sites for macaws in Peru which were readily accepted. Hopefully, if the funds are forthcoming, it will be possible to assist Buffon's in the same way.

Available funds should be spent as a matter of urgency on trying to assess the status of Buffon's Macaw. No official breeding programme is necessary. It is already breeding in a few collections in Europe and the USA at a cost, of course, only to those private individuals and bird parks

who hold it. Overall in captivity, this is a rare macaw and one which is most unlikely to be kept as a pet.

Not until 1993 did I have a breeding pair of Buffon's in my care. In the breeding centre at Palmitos Park, Gran Canaria, there are two pairs which were obtained as young birds in the early 1980s. By 1991 neither pair had made any attempt to nest; they did not appear compatible. To allow them the opportunity to re-pair if they wished, they were then placed on exhibit in a large macaw aviary of mixed species in the park.

After two years one pair was observed behaving aggressively, not permitting other birds on the nearby perch. They were therefore returned to the breeding centre and placed in a small aviary, measuring 10ft (3m) long, 6ft (1.8m) wide and 7ft (2.1m) high. The nesting site, made of concrete, is set into the back wall and can be inspected without entering the aviary. Concrete would not be recommended for most climates but it is ideal for macaws in the hot, dry climate of Gran Canaria. The front is covered with split logs; wood shavings and pieces of wood to be chewed up are placed inside.

The nest was soon investigated and eggs were laid on March 27 and 30. These were incubated for the full period and proved to be infertile. The first egg of the next clutch was laid on May 17. The second egg, in which the embryo died, was probably laid on May 23. The first egg hatched on June 13 to give an incubation period of 27 days.

The chick was extremely well cared for by its parents. It gained weight even faster than the Hyacinthine Macaw being reared in the next aviary. I weighed it on a

few occasions when I could do so without causing any stress to the parents. Incidentally, average weight of 11 newly hatched chicks in one collection was 22.6g.

At one day old the chick had longish white down on the middle of the back; it was sparse elsewhere and wispy on the head. At 21 days there was second down on the back and the wings were grey with feathers developing under the skin. The eyes were open but not wide. At 30 days the feathers were erupting with yellow and red feathers on the forehead. At 22 days the young Buffon's was ringed with a 14mm ring. Thereafter it was weighed only once and inspection was made daily. The parents would generally leave the nest.

They ate mainly walnuts, sunflower seed, fresh corn and large pieces of carrot. Other items in the daily food mixture are boiled maize and various fresh fruits and vegetables. Mineral blocks are usually available.

After spending several days looking out of the entrance, the young Buffon's left the nest on September 11, aged 90 days. It was a joy to see this family; the parents were extremely protective, always perched on on each side. After a few days they began to over-preen the young one, thus its appearance was then less than perfect. However, it was confident, steady and healthy.

On December 3 it was removed from its parents and placed in a much larger aviary with some Military Macaws *Ara militaris*. Three of these had been hand-reared. As I had just removed them from the hand-rearing room I continued to feed them warm rearing food from the spoon once daily. I also handed them cracked



Ara ambiguus at 37 days.

Photo: Rosemary Low.

walnuts. On the second day I was surprised by the young *ambigua* coming up to take walnuts from my hand. Soon he (or she) was demanding a taste of food from the spoon! He was quite fearless, unlike many parent-reared macaws.

In 1994 the female laid three eggs during the third and fourth weeks in May. The first hatched on June 15 (two days later than the previous year) and what was probably the third egg hatched on June 21. When the chicks were small the parents were aggressive and protective when nest inspection was carried out so this was limited to about twice weekly. After this they ceased to be aggressive and would merely look into the nest entrance during inspection. The development of the young appeared to be normal and the few weights obtained were slightly lower than that of the single chick (see table). This is normal, as single parent-reared

chicks of any parrot species usually exceed the weight of those reared with siblings.

The first youngster was seen looking out of the nest on September 5. Both left the nest on the same day - September 19, aged 96 and 90 days. I was immediately concerned about them because they did not look strong. Next day the eldest was on the floor; it did not look sick but I guessed correctly that the parents had ceased to feed it.

I immediately took the eldest Buffon's to the hand-rearing room. It fed ravenously and, indeed "pumped" on the fourth spoonful. (A parrot removed from its parents at three months old must be very hungry indeed to do that). It was very gentle and offered no resistance at all to being handled. The same day it received calcium and multi-vitamin injections.

Three days later I had to remove the second young Buffon's which was found to be quite thin.



Ara ambigua at 68 & 62 days.

Photo: Rosemary Low.

It was slightly less easy to feed and to handle but neither bird ever attempted to bite me. When I picked them up I always tried to calm them by speaking to them quietly and by rubbing their heads. For the first few days they made no attempt to sample the food which was always in front of them. Their weights fell and I increased the initial three feeds daily to four. I also added peanut purée obtainable from health food stores and a few drops of olive oil to the food. Macaws need a higher fat diet than most other parrots and there is a belief that without some form of vegetable oil in the diet, they cannot utilise the fat in the food. I am not sure whether this has been scientifically proven but the fat content of the peanut purée is high and a few drops of olive oil can do no harm. The weight loss was reversed and after six days, I reverted to giving them three feeds daily. The food consisted of two parts wheat germ cereal, two parts Milupa baby food, one part Nekton-Lori and one part peanut purée. A small amount of Nekton MSA (calcium, minerals and trace elements in powder form) was added to the spoon at one or two feeds daily. At the time of writing the young Buffons are aged 114 and 108 days. The youngest takes less food from the spoon in the morning and is now sampling a wide range of foods, especially cracked walnuts, fresh corn, sunflower and various fruits. The first one still takes a lot from the spoon (at least 50g at the morning feed and about 100g at the two other feeds) and is slowly starting to eat on its own. Both are now strong and much more active.

It is difficult to know why the Buffons lost interest in feeding their young when in the previous year they had proved to be perfect parents. I have related in some detail the course of events after I had to remove their young to make others aware that it can be extremely easy to hand-feed such young at this advanced age. Of course this is not always the case:

much depends on the individual and the species. This year I also had to remove a Red-fronted Macaw *Ara rubrogenys* after it had left the nest. There were five adults in the aviary and a single chick was reared. Fourteen days after it left the nest it was hungry and dehydrated. Although it fed readily from the spoon, due to hunger, it was always difficult to handle and did not become tame.

Macaws of large species should be observed carefully after leaving the nest and, if there is any doubt about their condition, they should be examined in the hand. If they are very thin action must be taken.

This year, the second female Buffon's started to lay. Unfortunately, she broke all the five eggs in her first clutch within minutes of them being laid, although the nest was checked before light when it was known that one of the birds was an egg-breaker.

All those fortunate enough to keep this species should regard this as a serious responsibility. I would urge them to register their birds with the European studbook keeper, Martina Muller at Vogelpark, Walsrode.

Captive-breeding of Buffon's Macaw will at least ensure its survival in aviaries. I suspect that it will prove harder to safeguard the existence of the wild populations.

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WEIGHT IN GRAMS OF THREE YOUNG REARED AT PALMITOS PARK

Date Hatched	13/6/93	15/6/94	21/6/94
Age in days			
4	51		
5	68		
7	101		
9	157		188
11	207		
13	273		
14			325
15	338		
16		382 (ringed 14mm)	
17	447		
21		534	
22	631 (ringed 14mm)		
27			681 (re-ringed 18mm)
30	846		
31			798
33		830	
37		900	
43	980		982
49		1096	
90	left nest		left nest
94			removed - starving
96		left nest	
97		removed - starving	775/834*
98			780/801?
99	#	784/850	
100	3	878/936*	782/836 eating sunflower
101	3	871/940	780/818
102	3	863/930	783/860
104	4	827/888	785/843
105	4	862/939	788/865
106	4	871/970	796/?
107	4	864/961	799/884
108	4	880/960	813/?
109	3	877/976	
110	3	888/1000	
111	3	895/998	
112	3	914/985	
113	3	914/1020	
114	3	927/982	

* Weights before and after first feed of the day. # Number of times spoon-fed daily.

PROGRESS WITH LEAR'S MACAW

By Michael Reynolds

Readers will be aware of on-going interest in preserving the critically endangered population of Lear's Macaw in its rugged territory in NE Brazil. Directing our efforts is Dr Charles A Munn, who incidentally has just been chosen as one of '50 US leaders under 40' by Time Magazine.

Charlie, who we are fortunate to have as one of the trustees of World Parrot Trust USA, has a uniquely dynamic way of extracting the maximum output from his time, and after spending a week on our behalf in Brazil last November he wrote us a 19 page report on his flight back to the US. This report was intended primarily for our sponsors of this work, the People's Trust for Endangered Species, the International Aviculturists Society, and a supporter in Florida who prefers to remain anonymous. I have attempted here to summarise Charlie's report for all our members and especially those who have supported this project.

During his week in Brazil, Charlie accomplished the following:-

In Sao Paulo airport, met with officials of CETREL, a Salvador-based environmental protection

company, which works closely with WPT in the Lear's area, and provides at no charge the services of its field biologist and environmental educator Pedro Lima. CETREL had just been presented with two top awards for ecological protection in Brazil. Charlie also gave press interviews about our activities, and arranged for us to have access to CETREL'S professional videos of the Lear's macaw project. CETREL also helps us with the importation red tape and transport to move 50,000 plastic pots to our palm growing sites.

Also in Sao Paulo, Charlie met with a leading aviculturist who has much specialised information about rare birds in Brazil. It is understood that as many as twenty Lear's Macaws have been stolen from the wild during the past year. Ways of countering illegal activities were discussed.

Charlie and Pedro Lima then flew to Belo Horizonte for a meeting with the official Lear's Macaw Working Group. This included representatives from IBAMA, the government conservation authority, BIODIVERSITAS, a leading NGO, CONSERVATION INTERNATIONAL,



A journalist, C. Munn & Danilo Lima at Bahia, Brazil.

Photo: Pedro Lima.

curators from Sao Paulo and Belo Horizonte zoos, and others. Discussion was centred on a draft proposal penned by The Working Group's chair, SONIA RIGUEIRA. A series of difficult issues were discussed frankly. These included purchase and management of key Lear's areas; census figures (previous reports of only about 60 birds have been upgraded to around 118), the need to investigate nests (Munn stated that if the numbers were at the higher level now reported, such studies could be deferred); theft of birds from the wild; new protection measures, full access for WPT biologists to key areas; the formation of a new conservation group in the state of Bahia (where the macaws live); planting and translocation of palm trees; Lear's macaws held by private individuals. The meeting ended with Pedro Lima asking for and receiving permission from all assembled for his World Parrot Trust team of Brazilians to carry out field censuses and research on ecology and ranging behaviour of Lear's Macaw at all known locations for the bird in NE Brazil. (IMPORTANT NOTE: Charlie Munn announced at the IAS convention at Orlando, Florida in January '95 that a new population of Lear's had been discovered by Pedro Lima. More news about this in future editions of 'PsittaScene'.)

The following day Munn and Lima flew to another location in Brazil, where they met with a former bird trapper who is now advising WPT in methods of turning bird trappers into bird protectors. This is a difficult and delicate area, but one that has to be pursued. When a man is

desperate to find a way to feed his family, trapping birds seems a good way to do it. If, however, he can be given a very modest but reliable income to protect the birds, this can be a valid conservation technique. But close supervision is essential.

Next Munn went to Salvador, capital of Bahia, where he met with CETREL management, and then to Ituberá where Danilo Lima (no relation to Pedro) is growing our WPT palms. Those members who have helped by buying a 'Palm for a Parrot' will be pleased to know that the plantation is coming along well. Germination has not been as good as expected, however, and further seeds are being planted. Our consultant Prof. Alan Meerow is helping with this issue. The special Citrapots needed for their cultivation and transplantation have now arrived at the palm nursery.

In Salvador, Charlie met with local dignitaries involved in the setting up of the Bahia conservation group. This will be a powerful organisation, and it will help with Lear's Macaw.

Finally, Charlie flew to Rio de Janeiro and met with other well informed individuals with specialised knowledge of rare parrots.

Quite a schedule, but it resulted in considerable progress on every matter affecting the conservation of Lear's Macaw. In a later issue of this newsletter we will cover the actions resulting from Charlie Munn's trip. In the meantime, our top priority is securing the substantial funds required to allow our work to continue.



The palm nursery at Bahia, Brazil.

Photo: Pedro Lima.

SUMMARY OF ECHO PARAKEET CONSERVATION 1994-95 SEASON

By Tim Lovegrove



Pair of adult Echos in Mauritius aviary.
Photo Andrew Greenwood.

This year we are pleased to report the most productive season for the Echo Parakeets since the mid 1970's. We began the season with four pairs in the wild and one in captivity. All started breeding early, perhaps in the wild birds in response to abundant food supply following a flush of growth after last February's big cyclone.

This season the plan was to harvest as many eggs as possible from wild nests and allow the birds to recycle and lay second clutches, which would be left to fledge naturally. This procedure has the potential to increase normal productivity, and simultaneously boost the numbers in both captive and wild populations.

Nine eggs were removed from three wild nests and brought to the captive breeding centre at Black River. In the meantime the single captive pair, which bred for the

first time last (1993-94) season, had also laid, producing two fertile eggs. All of the eggs from the wild and captive pairs were fostered to the Indian Ring-neck Parakeets, which are specially kept at the aviaries for this purpose. Five of the nine wild eggs, and both captive pair eggs hatched. Unfortunately three of the wild pair young died at various stages, leaving two wild pair and two captive pair young, all of which have now fledged and are doing well. They will shortly become independent, and will be moved to another aviary where they can socialise together away from their ring-neck foster parents. With the successful rearing of these young the captive population will total eight.

Two of the three wild pairs from which eggs were harvested recycled, and both produced two clutches. Unfortunately both eggs in one clutch were infertile. However this gave us the opportunity for the first time in the management of Echos, to carry out an egg transfer between nests, because these two were closely synchronised. This went smoothly, both eggs hatched, and both chicks are now close to fledging. (These have now both fledged successfully).

Sadly the nest of the fourth wild pair failed just as the eggs hatched. The evidence (chicks mutilated, but not eaten) suggested that a second male which has been associating with the pair, may have sabotaged the nest. Extra males (males outnumber females in the Echo population by about two to one), have been known to disrupt



Tim Lovegrove setting a rat trap in the forest.

Photo: Paula Harris.

breeding in the past, but this was the first suspected case of infanticide. However extra males are not always disruptive. The nest to which we transferred the fertile egg also had two males in attendance, but since both regularly provisioned the female we assumed they would do likewise for a chick. Indeed that is what happened, although just lately one male seems to be visiting more frequently than the other one.

Recently we discovered two new Echo pairs, bringing the total of known wild pairs to six. One of them already had two fledged young from an unknown nest site. The other pair had a large nestling when we found them in mid-December. All three young are now nearly independent, so a total of 5 young fledged in the wild this year! It is reassuring to know that in some good years Echos can rear young without our help. This season has been remarkable for the abundance of natural foods and unusually low numbers of ship rats. Despite low rat numbers we have taken the usual precautions trapping and poisoning around nests to ensure maximum protection. We have also been protecting the nestlings from nest parasites by changing the nest material at frequent intervals and replacing it with fresh nest material treated with 5% carbaryl insecticide. Using these management techniques as well as daily monitoring of progress, we are confident of a high success rate in future breeding seasons for the wild Echo parakeets.

With the successful breeding of

the captive pair in two successive seasons, we now know that Echos will breed in captivity. The staff at the aviaries have this season also been refining hand rearing techniques (should these be necessary for Echos), by hand-rearing young Ring-neck Parakeets. Ten were reared successfully.

The only major problem to solve now at the aviaries is the extent of Psittacine Polyoma virus which was found recently in the Ring-necks used as Echo foster parents. Polyoma is still rather a little-known disease, and it is not known if it is already endemic on Mauritius. It can be fatal to young birds, and it is possible that the three young Echos which died at the aviaries this season contracted Polyoma. Samples are being sent to Germany for analysis, and our veterinary advisor Andrew Greenwood will be visiting shortly to take a further batch of blood samples for analysis. We will also be collecting blood from some of the wild birds to determine the spread of the disease in the wild. Until the extent of Polyoma is determined (we hope to have results in a few months), we will not bring any more eggs in from the wild. It might even be necessary to start afresh at the aviaries and replace the stock of Ring-neck Parakeets. This would delay part of the captive breeding programme for several years. Although this is a frustrating setback, at least we know that the wild pairs are breeding successfully, and intensive management will enhance this success rate.

22 January 1995



13 day old Echo.

WELL KNOWN AVICULTURIST INDICTED ON PARROT SMUGGLING CHARGES



The following report was supplied by the U.S. Fish & Wildlife Service

JAMES B. BURNS, United States Attorney for the Northern District of Illinois, together with JOHN J. DOGGETT, III, Chief Division of Law Enforcement, United States Fish and Wildlife Service, United States Department of the Interior, today announced the return of a fifteen-count superseding indictment charging an exotic parrot expert, TONY SILVA, 34, of Monroe Center, Illinois (formerly of North Riverside, Illinois), his mother, and two other individuals, with a conspiracy to smuggle, into the United States, exotic and highly protected parrots, including at least 186 Hyacinth Macaws with a total retail market value in excess of \$1,300,000. Each Hyacinth Macaw can exact between \$7,000 and \$15,000 on the legitimate retail market.

SILVA and his mother, GILA DAOUD, 61, of North Riverside, Illinois, reaped huge profits from their sale of Hyacinth Macaws, and other species of birds. As noted in the indictment, for just two shipments involving 79 Hyacinth Macaws, SILVA and DAOUD paid co-defendant GISELA CASERES, also known as "Ann Koopman" of Asuncion, Paraguay, approximately \$46,959, as her share of the profits earned. SILVA, DAOUD, and their co-conspirators, according to the

charges, engaged in their smuggling activity for profit and added to the depletion of these rare and protected birds from their natural habitats.

Hyacinth Macaws occur naturally only in Bolivia, Brazil, and Paraguay. According to published reports in the field, there are only approximately 2,000 to 5,000 Hyacinth Macaws remaining in the wild. Similar reports indicate that as many as 90% of smuggled parrots perish from their point of capture to final destination.

During the six and a half years covered by the conspiracy allegation, SILVA masterminded several different smuggling schemes, all of which involved highly protected species of parrots. The conspiracy allegation also charges SILVA, DAOUD, CASERES, and a fourth individual, with smuggling various other species of highly protected parrots and macaws into the United States for commercial purposes. Some of those species, such as the Crimson-bellied Conures, the Blue-throated Conures, and the Vinaceous Amazons, are so rare that they are considered priceless.

SILVA's mother, GILA DAOUD, assisted her son in his smuggling operations. In fact, DAOUD is also charged in Counts Eleven and Twelve with smuggling an elephant ivory tusk and a parrot feathered

headdress into the US. Those items were later discovered in SILVA's Monroe Center home, during the execution of search warrants.

As part of the charged smuggling activity, SILVA and DAOUD violated USDA quarantine requirements, which threatened, among other interests, the domestic poultry industry. SILVA and DAOUD, and their co-defendants, failed to declare the importation of the wildlife to the proper authorities. In addition, the defendants took these animals from countries that do not allow the export of their natural wildlife, and imported the species into the United States without proper documentation from the US Fish and Wildlife Service.

From August 1989 through January 1992, while SILVA was Curator of Birds at Loro Parque in Tenerife, on the Canary Islands, in Spain, GILA DAOUD, at her son's direction, managed SILVA's parrot smuggling activity in the United States.

SILVA is a reputed parrot conservationist, and an internationally known authority on the plight of these particular species of parrots. He has authored several books, including A Monograph of Endangered Parrots and A Monograph of Macaws and Conures. He has also written hundreds of articles concerning exotic parrots. GISELA CASERES is alleged to have supplied SILVA and DAOUD with most of SILVA's smuggled parrots during the entire course of the conspiracy.

The final defendant, HECTOR UGALDE, 53, of Miami Beach, Florida, is also named as a co-conspirator with SILVA and DAOUD. It was UGALDE's responsibility, as part of the conspiracy, to arrange the illegal off loading of 50 Hyacinth Macaws in Mexico, and smuggling them into the United States.

The charges filed today come after a nearly four-year investigation into the smuggling activities of TONY SILVA, which was part of an undercover international probe, code-named "Operation Renegade." To date, as a result of that investigation, thirty individuals have been convicted of parrot smuggling and related violations of federal wildlife laws.

The allegations of today's superseding indictment charge SILVA and others with violations

of provisions of "CITES," which is an international treaty intended to protect various species of wildlife from extinction. Also charged as part of the conspiracy are violations of US wildlife protection statutes, including the Endangered Species Act, and the Lacey Act, and the wildlife protection laws of several foreign countries.

Despite the fact that none of the species of birds listed in the superseding indictment are indigenous to the United States, Mr Burns, in announcing the charges, stated, "The United States takes its responsibilities under the Convention "CITES" very seriously. This indictment reflects the government's continued commitment to safeguarding and protecting our global community's natural resources against those who would illegally take those riches to increase their personal wealth."

Counts Three through Ten, and Fourteen and Fifteen, of the superseding indictment, allege specific acts undertaken by TONY SILVA and GILA DAOUD, including facilitating the transportation of, concealing, and possessing, highly protected parrots, including Blue-throated Conures, Yellow-shouldered Amazons, a Lilacine Amazon, Red-vented Cockatoos, and Crimson-bellied Conures, knowing those birds had been smuggled into the United States.

If convicted of the charges contained in the indictment, TONY SILVA faces a combined maximum prison term of forty-five years' incarceration, and a maximum total fine of \$2,500,000; and GILA DAOUD faces a combined maximum prison term of fifty years' incarceration, and a maximum total fine of \$2,750,000. If convicted, GISELA CASERES and HECTOR UGALDE each face a combined maximum prison term of five years' incarceration, and a maximum fine of \$250,000. The Court, guided by the United States Sentencing Guidelines, however, will determine the appropriate sentences to be imposed if the defendants are convicted of the offenses alleged.

The public is reminded that an indictment is only a charge, and is not evidence of guilt. The defendants are presumed to be innocent, and it is the government's responsibility to prove their guilt beyond a reasonable doubt.

WPT PARAGUAY PROJECT BEGINS

By Andrew Greenwood

At the beginning of December, Andrew Greenwood of International Zoo Veterinary Group flew to Paraguay, funded by the World Parrot Trust from a Foreign Office Grant. His purpose was to review progress on a proposed ecological bus for Paraguay, to investigate and make recommendations about a group of captive Hyacinthine macaws at the Asuncion Zoo and to look into the general status of the Zoo and possibilities for improvement. This article records his findings and impressions of the situation.

My trip to Paraguay was to be my first to the Cono Sur (Southern Cone) of South America and was really brought about by the interest and enthusiasm of H.M. Ambassador to Paraguay, Michael Dibben. It was his initiative which had first involved the World Parrot Trust and led to the proposal to construct an educational bus to travel the country, along the lines of those already provided by World Parrot Trust and RARE to St Lucia, St Vincent and Dominica, and it was he who had drawn our attention to the plight of a group of confiscated Hyacinthine macaws at the Zoo in Asuncion.

The journey started badly, with

my very cheap Iberia flight being cancelled due to a strike, which led to my changing to British Airways and travelling the following day via Sao Paulo. Actually this was a blessing in disguise, for it provided me with an excellent daytime flight over Southern Brazil and Eastern Paraguay, and a stop over in Sao Paulo on the way back.

The American Airlines connecting flight to Asuncion takes two hours. After leaving Sao Paulo, one of the world's largest cities, we flew out over an intensively cultivated landscape with almost no surviving woodland, crossed by brown meandering rivers. The soil colour revealed by ploughing is a bright orange-red, which seems typical of most of the region. As we entered Paraguay across the Parana river the change was immediate. Although we were crossing north of the main remnants of the Eastern Atlantic forest (the "Mata Atlantica"), the countryside was scattered with big patches of woodland among the cultivated fields. Yet in some places, these patches were already being reduced to skeletal remains by clearance along parallel roads cut into the forest. Approaching

Asuncion, the countryside suddenly gave way to barren wetlands leading down to the capital city, which lies on the Paraguay river. Asuncion is a total contrast to Sao Paulo - wooded green suburbs with red-tiled roofs and large villas, and not a high-rise block in view. The journey ended in some style, with the Ambassador himself there to meet me, and whisk me through immigration and Customs and away in the official Daimler. There are certain advantages to working with the Foreign Service.

The next six days were completely filled with meetings, discussions and practical work with the zoo, except for the weekend when, at the Ambassador's suggestion, I flew to the east of the country to visit the Iguacu Falls in Brazil. Even then, I managed to fit in visits to a couple more zoos.

The "Ecobus", as it has become known, is an immensely popular project in Paraguay at all levels. The bus itself, which has been purchased locally through a Foreign Office grant, is now complete except for the painting of the outside and the fitting of the interactive displays and

graphics, which will be constructed by the team at Paradise Park. Paraguayan "primitive" artists are to be enlisted to decorate the outside with forest scenes and wildlife. The content of the interior, which will have to be translated into Spanish and Guarani (the local language spoken by 90% of Paraguayans), is being prepared from an initial outline by our research and management consultant Dr David Waugh, with input from Nancy Lopez de Kochalka of the Department of Protected Areas and from the Ministry of Education. There was considerable discussion as to the future management of the project and it seems likely that a committee will be needed, incorporating all the major interests in the country, including CITES, the leading NGOs, and various government departments. The preferred strategy is to generate the maximum interest and publicity within the capital, and then send the bus out into the major nature reserve areas, particularly in the east of the country where the majority of the population live, and where forest destruction is at its worst. Encroachment into forest reserves is a constant problem and it is hoped that the bus will help to educate people around the reserves to respect their boundaries. A major congress on the Ornithology of South America is to take place in Asuncion in August, and the bus is intended to be a showpiece at this meeting.

The problem of the Zoo and the confiscated Hyacinthine Macaws is somewhat less tractable. Paraguayans recognise that their country has long been the main route for smuggling Brazilian endemic wildlife out of South America, something which most people have been vaguely aware of but which has just been thrown into sharp focus by the indictment of Tony Silva and his collaborators in the United States. Such activities are still going on, but Lucy Aquino-Schuster, the head of CITES, informed me that large shipments were now uncommon, and birds were mostly captured in small numbers. CITES here, as elsewhere in South America, has a major problem in deciding what to do with confiscated birds; they are generally aware of the potential risks of reintroducing birds which may have been in contact with other species or even domestic poultry. They are hamstrung by



Roadside forest remnants, Paraguay.

Photo: Andrew Greenwood

lack of funds and clear ideas, and we had a very useful discussion about the possibilities of in situ captive breeding, the criteria for releasing birds, identification and disease problems.

The eight Hyacinthine Macaws at the Zoo are the remains of a group of twenty-six birds confiscated some years ago. One other bird is held by CITES at a private farm and all are in very poor accommodation. Only two of them are female. Part of the World Parrot Trust's grant has been set aside to house these birds and provide interpretive material so that they may become a conservation focus at the Zoo, and I was able to show the Zoo's architect plans and photographs of the big flight at Paradise Park, with a view to constructing something similar at the Zoo. This project is already underway, and it is likely that the aviary will house the Hyacinthines and some Green-winged Macaws, with the future possibility of pairing the two female Hyacinthines and separating these two pairs into an off-show breeding area. There are obviously a considerable number of Hyacinthine Macaws in private hands in Paraguay, none of which are technically legal (there was even one in the garden of my small hotel). I was able to suggest to CITES that they consider rounding these birds up for a future breeding programme, or at least registering them in the way that all St Vincent Amazons in private ownership are registered by their government. This idea was met with surprise, but approval, and is a project which we are pursuing.

Asuncion Zoo itself is in a fairly dire state. Founded in the 1930's by an expatriate from Hamburg, its buildings are small, badly constructed and hopelessly out of



Spix's Macaw at Sao Paulo Zoo; the male on the left, has a different head and beak shape.

Photo: Andrew Greenwood

date. The Zoo is situated in a beautiful botanical garden, owned and operated by the municipality. Thus, although it is the "national zoo", it has no government funding and is entirely the responsibility of the city and local politicians. The botanical garden also contains a Museum of Natural History, the City's Country Club and a 40 hectare reserve of original forest. The zoo has been the subject of innumerable expert reports, the latest by the Sunset Zoological Park of Kansas through the Friends of Paraguay - Kansas, none of which up to now, have had much impact. However, there is a very keen and go-ahead Foundation (the Fundacion Jardin Botanico y Zoologico) of interested private citizens who are providing fund-raising support. Their members include veterinarians, university lecturers, architects and other professionals, who are extremely well motivated but are

the first to admit their ignorance of modern zoo practice.

My feeling was that the key to improving the zoo would be to greatly enlarge the role of the Foundation, and develop the whole Botanic garden complex into a Biodiversity Centre. This approach contrasts with previous ideas, which have tended to emphasise the municipal basis of the zoo, and I shall be reporting to the Ambassador along these lines. In practical terms, much of the zoo needs redevelopment and the animals rehoused, with the emphasis on the exhibition of local species and public education in wildlife conservation. As is always the case, simple demonstrations of surgical sexing of a few macaws, remote injection techniques and contraceptive advice for big cats, generated more enthusiasm among zoo staff than any number of learned reports. We were able to pair up and rehouse immediately

some macaws which had been held in groups for five years, and vacate aviaries for parrots which were currently occupied by pigeons and chickens. The Zoo Foundation has demonstrated its ability by raising funds for the improvement and enrichment of some monkey cages and I was able to attend a fund-raising dinner for the German Chamber of Commerce to see the Foundation in action. Such enthusiasm bodes well for the future and we hope the Foundation will be able to match or complement World Parrot Trust donations.

My visit to the Iguacu falls, at the junction of Paraguay, Brazil and Argentina, involved a low altitude flight due east to Ciudad del Este. Here it was possible to see forest clearance at closer quarters, and it is certainly proceeding at a tremendous pace (in fact the most rapid rate in South America). Active felling and burning could be seen and, in many places, the only remaining trees were those around the farm houses.

The flight into Ciudad del Este passes the world's biggest dam at Itaipu, which in 1976 flooded a huge area of surrounding riparian forest on the Parana river. One of the by-products of the huge wildlife rescue operation which took place is the Itaipu zoo, run by the Forestry Department together with a Museum of Natural History. This zoo was laid out in wooded grounds near to a lake and, although the exhibits for carnivores left much to be desired, most of the animals had plenty of space in naturalistic enclosures. There were relatively few birds, but the wild Muscovy duck and Bare-faced Currawong were breeding in good numbers.

The Iguacu falls are reached by crossing the Parana river into Brazil. They are situated within a



Iguacu Falls at the junction of Paraguay, Brazil & Argentina.

Photo: Andrew Greenwood

large transnational forest reserve and are quite stunning. Despite being the largest waterfall in the world, and visited by thousands of tourists, the park area is very thoughtfully laid out, and tourism does not obtrude too much on the experience. A flock of White-eyed Conures feeding in a tree in the middle of the falls and many Great Dusky Swifts flying behind and even through the waterfall provided some added bird watching interest. In one of those coincidences that seem to occur more and more frequently, the wife of the American couple with whom I shared a taxi turned out to be a great friend of aviculturist Gloria Allen.

Just outside the entrance to the forest park, an enterprising British/South African company has opened a new bird park, Foz Tropicana. This park was very well set out, being cut sympathetically into the forest and with superb walk-through exhibits of local species. Hyacinthine Macaws, Vinaceous and Red-Tailed Amazons were all exhibited, having been obtained from other Brazilian zoos. The technical director, Dr Zalmir Cubas is an alumnus of the Jersey Zoo Summer

training course.

On my last day in Paraguay, I visited the Fundacion Moises Bertoni. This private NGO, mostly funded from the United States, owns and operates a large forest reserve at Mbaracayu Forest in Eastern Paraguay. Their concerns include reserve management coupled with sustainable development, environmental education and the protection of indigenous people. The Fundacion is particularly concerned that the Ecobus visit the area surrounding their reserve to boost their educational efforts. The reserve itself is the largest in Paraguay and holds more than 370 recorded species of birds, including the Vinaceous Amazon. However, there is no clear idea of the number of this species and there is a need for a proper local survey.

After a long final meeting with the Ambassador, I left Asuncion to return to the UK via Sao Paulo, where I had to make a 24-hour stopover. This gave me the opportunity for a brief visit to the zoo, thanks to the help of Yuri Barros, a WCS field worker who happened to be at home in the city writing up his Blue-throated Macaw field work. There I was able

to learn a little about the state of parrot aviculture and conservation in Brazil and to do a rapid tour of the very beautiful and impressive zoo. The star features were, of course, the off-show pair of Spix's macaws, and the large new aviary complex for forest eagles, which included five pairs of Harpy Eagles. The zoo has high hopes of breeding these eagles, but it seems that their 3 Spix's Macaws (2,1) are to be moved to other breeding centres by the Spix's Macaw Committee. In general, their standard of parrot exhibition and aviculture was not high, and it seemed as if this is the case throughout Brazil, with the exception of one or two private breeders. There is little breeding among the various collections, perhaps due to a simple lack of sex-determination, poor diet and a lot of losses from aflatoxicosis (poisoning by fungal toxins from badly stored nuts). Recently a major workshop had been held on the Hyacinthine Macaw, with input from field workers Yuri Barros and Carlos Yamashita, but only one experienced aviculturist from outside Brazil had been invited, and she didn't turn up. World Parrot Trust clearly has

opportunities to help improve this situation. I was allowed to photograph the Spix's Macaws in the aviary and it can be seen from the picture how clearly the male and female can be differentiated by their head and beak shape.

Paraguay is a delightful place to visit. I owe a great debt of thanks not only to Michael Dibben but to all the people I met, for making my visit run so smoothly and enabling me to cover a lot of ground in a very short time. People unflinchingly turned out to meet me (Lucy Aquino even coming in from maternity leave) and all were enthusiastic about World Parrot Trust's proposals and offers of help. Local people were the first to admit that it will need regular follow-up to keep the momentum going (enthusiasm followed by inactivity being a trait the Paraguayans joke about). Nevertheless, World Parrot Trust can accomplish a lot in Paraguay, even with the limited funds at our disposal. Paraguay has been a forgotten country for 40 years - I urge members and readers to go and see for themselves what a lost paradise it is.

WPT FUNDS NEW AFRICAN GREY RESEARCH

When the Canadian WPT held their Symposium in Toronto last November, two of the speakers were Dr. Irene Pepperberg and Dr. Charles Munn III. They discussed Dr. Pepperberg's widely reported work with 'Alex', an African Grey Parrot which has demonstrated extraordinary linguistic and learning abilities. Dr. Munn mentioned a Wildlife Conservation Society site in the Central African Republic where many hundreds of these parrots congregate, and the idea of extending Dr. Pepperberg's laboratory work into a wild context was born. An admirably brief project proposal was drawn up, and after offering it to two potential sponsors who were not able to make a virtually immediate decision to support it, we decided that it should be funded jointly by all six branches of The World Parrot Trust

The total budget is \$10,000, so we will be asking each of our branches for \$1,600, or about £1,000. Since the African Grey has to be regarded as the most sought after parrot for pet or 'companion' purposes, we would hope that individual African Grey owners would be prepared to contact their local branch and make a special

donation. What is more, aviculturists who are successfully breeding this species for the pet market may also want to contribute. A speaker at the AFA Convention last August mentioned a pair of Greys which had earned over \$100,000 in a twenty year breeding career, so generosity would not be out of place! Readers will find all our addresses on Page 19 (note new address for Canada).

This initial three month study will hopefully lead on to further field work on this very neglected species, and measures to counteract the continued capture of these birds in the wild are urgently needed (see report in 'International News' about man charged with illegally exporting 5000 African Grey Parrots).

* * *

HOUDINI'S AFRICAN GREY

On a lighter note, we have a fascinating letter from one of our members, Capt. Kenneth R. Force of New York. It seems that Harry Houdini, the great escapologist, kept an African Grey in his Manhattan town-house. Whenever Houdini came home, the parrot

would say 'Hip hip hooray, Houdini's home.' This talented bird could not escape being stuffed, and since 1926 it has

resided at the American Museum of Natural History in New York City.



Houdini's African Grey



INTERNATIONAL NEWS ROUND-UP



AUSTRALIA

WPT members Frank and Ria Illich, owners of Ashmore Caravan Park, have found a novel way to publicise the Trust. All the staff who work in their shop wear our colourful (and much admired) T-shirts! This beautifully planted park, situated on the Gold Coast near many tourist attractions, has a unique attraction for visitors, especially parrot lovers. Its aviaries exhibit three species of macaws, seven species of cockatoos and many other birds. Those visiting the Gold Coast might like to note the address: Ashmore Caravan Park, Hinde St, Ashmore, Qld, telephone 075 39 322.



Ria Illich (centre) and her staff publicise the Trust in a novel way. Photo: Rosemary Low.

CZECHOSLOVAKIA

New Czech Law to prevent Exotic Animal Trafficking

The Czech Republic has become a world market for smuggled exotic animals' sales, the Czech Environment Ministry says, and that is why it has drafted a bill on international trade in endangered wildlife.

The Czech Republic serves as a transit country for exotic plant and animal smugglers. Parrots and reptiles are also selling well on the domestic market, the ministry reports.

It points to the seizure of a shipment of rare parrots of South American origin worth 3 million crowns (almost \$69,000) on the Czech-German border in March 1993, and the uncovering of a similar shipment on the Czech-Slovak border two months later.

FRANCE

CDE Convention

French aviculture continues to progress very rapidly, as was demonstrated on November 12 at Arras. The Club des Oiseaux Exotiques organised its first convention, with the participation of WPT. The theme was 'Aviculture and Conservation.'

The meeting was attended by nearly 200, with a few people from Belgium, Germany and the UK. The meeting was opened by Dr Didier Lepertois who has played no small part in the progress in France. Aviculturists there, are enormously disadvantaged by unreasonable

legislation which not only forbids import and export of nearly all birds (and forbids even keeping of some species) but prevents movement internally. Permission has to be obtained to take a parrot to a veterinarian, for example. Dr Lepertois works tirelessly (so far with little return) for a reversal of some of this legislation. Admiration is due for the aviculturists there, who work under such difficult conditions.

The ten speakers came from three countries. Representing the Trust, Andrew Greenwood opened the meeting by describing the work of the Trust. He recounted how from a modest beginning in 1989 the Trust has attracted 2,000 members in the UK and many overseas. The other speakers from the UK were Harry Sissen, who described how he breeds rare species of macaws and other parrots, and Rosemary Low who spoke about the factors endangering parrots in the wild and in aviculture.

Marc Boussekey gave a fascinating and informative account of the conservation programme for the Red-vented Cockatoo *Cacatua haematuropygia*. It is found only in the Philippines, a group of about 7,000 islands, yet today it is known to survive only on the island of Palawan. Early searches in 1987 revealed only 17 birds; in 1992, 23 were found but only 10 in 1994. It is critically endangered due to habitat destruction and illegal taking of young from the nest. (More detailed information as presented by Marc Boussekey will be published in a forthcoming issue of *PsittaScene*).

In his closing address, Dr

Lepertois stated the CDE was planning to raise funds for parrot conservation and had chosen to support WPT because of 'its competence and integrity' the fact that little of its income is used for administrative purposes, and because it has its roots in aviculture.

The profit from this meeting will be donated to the project to assist the Red-tailed Amazon *Amazona brasiliensis*. WPT would like to thank everyone who helped to make this convention a success and for their enthusiasm and support for WPT. Thanks are also due to Jacqueline and Gabriel Prin for selling WPT T-shirts. — R.L.

GRAND CAYMAN

Grand Cayman, in the British West Indies, 180 miles northwest of Jamaica and just 15 miles long and 5 miles wide, has pictures of the Queen on its money, they drive on the left and they have a parrot, just! As the Cayman Islands popularity increases as a paradise for tourists, so its endemic parrots are running out of space. As the price of land soars, more and more is cleared to provide space for condominiums and holiday homes, destroying the red pine and tropical lilac whose fruit the birds feed on. Decades ago one man foresaw what would happen and decided that his grandchildren should be able to see the parrots flying free so he set about a breeding program.

At his honey farm Otto Watler built what has now grown into a lifeline for these delightful amazon parrots. *Amazona leucocephala caymanensis*, its predecessors were

probably blown over from Cuba by one of the frequent hurricanes that ravage the West Indies. With a little knowledge and an awful lot of dedication Otto has built up nearly thirty breeding pairs and on the horizon is a ray of hope, work has started on a botanic park owned jointly by the Cayman government and the National Trust, and in it planting has started of the fruit trees that the birds need to survive. Otto is preparing to start building again, in the park, and this time the offspring of his precious stock, some of them his fifth generation birds, will be able to fly free and Otto Watler will have achieved his dream.

HOLLAND

The 10th Parrot Symposium takes place on 29th April 1995 at Antwerp Zoo - contact T. Nuijten in Holland tel. 31 1640 40567 fax. 3115785602 or WPT U.K. for details. Mike Reynolds, Andrew Greenwood and the Benelux WPT Committee will look forward to meeting any WPT members who are able to attend.

JAPAN

I am working at Saitama Children's Zoo and am Studbook keeper and coordinator of Salmon-crested Cockatoos in Japanese Zoos. This is the only studbook of parrots in Japan.

About 80 birds are registered but only 7 Cockatoos are captive bred and not so good breeding



Cayman Island Parrot, (*Amazona leucocephala caymanensis*).



This Moluccan Cockatoo was the first successful hand-reared chick in Japan in 1988.

results in Japanese zoos.

About other species, Scarlet and Blue & Yellow Macaws had relatively good breeding results recently.

Parrots kept in Japanese zoos are mostly common species and not rare or endangered. The following rare or endangered species are kept in Japanese zoos.

Cacatua sulphurea,
C.s. citrino cristata, *C. ophthalmica*,
C. moluccensis, *C. alba*,
C. haematuropygia, *C. goffini*,
Anodorhynchus hyacinthinus,
Ara militaris, ★ *A. ambigua*,
Amazona viridigenalis,
A. rhodocorytha, *A. vinacea*

★ I guess *A. ambigua* are confused with *A. militaris*.

Now we are attempting to establish parrots TAG as we will contribute to conservation of parrots through captive breeding and education. About private sector, I think almost all parrots are pets, and few people attempt to breed large parrots.

Such people, are not interested in conservation. Their interest is only in rare and high prices.

Yours sincerely
 Yoshihiko Takaki

JERSEY

Gerald Durrell, founder of Jersey Wildlife Preservation Trust, died in hospital on the 29th January 1995. The World Parrot Trust wrote to JWPT as follows:-

To John Hartley, Secretary, JWPT.

Dear John
 I just heard the sad news about Gerald Durrell. You must all be devastated at Jersey, and I would like to express the condolences of all of us at the World Parrot Trust and Paradise Park. Gerald has always been the only inspiration for what our team at Paradise Park and the World Parrot Trust have attempted to do over

the past twenty two years.

Absolutely nobody else has so clearly identified what has to be done to rescue the natural world, and nobody has come anywhere near what he, and all of you there at JWPT, have actually achieved. Obviously the work will go on, and we will hope to continue our various associations with you. If you could kindly let Lee Durrell know that my wife and I will be thinking of her, we would be grateful.

Mike Reynolds

UNITED KINGDOM

International smuggling ring trail leads to UK.
 (Report from TRAFFIC)

The tracking of smuggled eggs from endangered birds in Australia paid off recently when United Kingdom Customs and Excise, Police and Department of Environment officers, seized 19 Australian black cockatoos in South Wales. Five people were arrested in connection with the seizure, the first of its kind in the UK.

TRAFFIC, the wildlife trade monitoring programme of the World Wide Fund for Nature (WWF) and IUCN - The World Conservation Union, assisted in the UK investigation and subsequent 8 December seizure. The organisation had lent its expertise earlier to Australian investigators, who found that cockatoo eggs from their country were being smuggled to both New Zealand and the United Kingdom.

The UK seizure included eight Red-tailed black cockatoos, seven White-tailed black cockatoos and one Yellow-tailed black cockatoo, all of which are listed on Appendix II of the UN Convention on International Trade in Endangered Species of Wild Fauna and Flora. The listing prohibits International commercial

trade in the birds without prior application and permits, and UK quarantine laws must be applied upon import. All black cockatoos are also banned from export from Australia.

In addition, two Red-vented cockatoos and 12 Major Mitchell's cockatoos were confiscated, pending DNA tests to determine their origin.

At issue, however, is not the smuggling of endangered birds but of their eggs, which are perhaps easier to hide. It is likely that the seized birds entered the United Kingdom as embryos.

"Smugglers use specially adapted body vests to carry and conceal the eggs," said Crawford Allan, TRAFFIC International Enforcement Officer. "They have built-in pockets to hold the eggs, which are kept warm with body heat. In Australia, one man was caught at the airport in Perth literally wearing 29 eggs."

That man, Christopher Owen, became the first person to be tried for involvement in the international egg smuggling ring. Earlier this month, an Australian judge sentenced Owen to six months in jail and an AU\$1,000 fine. A second man has been charged with conspiracy in Australia and charges are pending against a third there.

In New Zealand, police have arrested two people linked to the case.

Those charged to date in relation to the UK seizure are David Trevor Raymond Farmer of Haverfordwest; Alan Vaughan Griffiths of Llandysul; and Terence David Arthur Owen of Llanbydder. They appeared in Carmarthen Magistrates Court on 9 December, and were remanded on bail until 17 January.

"This seizure and pending prosecution will send shock waves through the avicultural community in the United Kingdom and elsewhere, setting a precedent which signals to smugglers that illegal practices will not be tolerated," Allan said. "International co-operation between enforcement bodies, combined with the increasing use of technology such as DNA testing and microchips, are major obstacles to illicit wildlife trading."

* * *

NCA - BIRD THEFTS

On 7 January a pair of Moluccan cockatoos were taken from an animal centre in Ealing, West London; a pair of Greenwing macaws from near Colchester in Essex and an attempt made at Rode Bird Gardens in Somerset. December 1994 was a bad month for bird keepers in the Birmingham area; in a twelve day period six different premises were attacked, the thieves stealing nearly THREE HUNDRED canaries, mules and British finches from garden aviaries.

Meanwhile near Southampton another canary fancier had 40 of his birds stolen, and in Somerset 12 Senegal parrots, 12 Quaker parakeets, 12 Indian and 12 African Ringnecks were stolen from a back garden aviary.

As administrator of the NCA Theft Register I have written to all three forces pointing out certain similarities. Generally the officers investigating each theft were not aware of the others, not even those that had occurred on their own force area.

* * *

AND NOW FOR THE GOOD NEWS!

The following fax from the NCA on 24 November 1994:

"Each time you receive a fax from me it is bad news of bird thefts, so I have the greatest pleasure to tell you that in the early hours of this (Thursday) morning, thieves broke into LINTON ZOO, activated the sophisticated alarm system and currently two men are helping police with their enquiries.

"No birds were stolen and Len Simmons and his helpers are unscathed. We will keep you informed."

David Neville, 9 January 1995

UNITED STATES

Parrot Smuggler Pleads Not Guilty to Bird Smuggling

A Miami importer of African grey parrots, a protected species popular because of their ability to talk, pleaded innocent on Thursday to charges that he smuggled nearly 5,000 birds into the country using false papers.

Adolph 'Buzz' Pare, 60, stood silently while his attorney, Roy Black, entered the plea before Chief US Magistrate William Turnoff. Pare was freed on \$200,000 personal surety bond.

US District Judge Edward B Davis set a trial date for February 27. If convicted, Pare could face a prison sentence of 2 to 4 years and a \$1.86 million fine.

African suppliers sell the grey parrots for \$85 to \$120 each, but the birds can bring up to \$1,000 each in the United States. Assistant US Attorney Lauren Priegues estimated the value of the parrot shipments between 1985 and 1991 at \$3 million to \$5 million.

The indictment said export documents claimed the birds came from African nations with legitimate captive populations when they actually came from wilderness sources in Zaire, which banned exports in 1984.

Hundreds of the birds have been quarantined in Florida. If Pare is convicted, the parrots could be sent to zoos, auctioned or returned to Zaire if the country agrees to return them to the wild.

ACTION PACKETS

PUTTING THE RECORD STRAIGHT

We have a globe-trotting member of the Trust who seems to take pleasure in creating difficulties for The World Parrot Trust. For example, one of our Dutch members heard him at a bird convention telling a group of German aviculturists that the WPT 'spends all its money on expensive lunches and dinners'. A strange statement and quite absurd. More recently he told a well-known UK aviculturist that we only spend 17% of our funds on the stated aims of the Trust. This is such a grotesque untruth that I think it necessary to publish here the most relevant page from our last accounts. Incidentally, anyone can send us a stamped addressed envelope and ask for our full accounts as approved by the UK Charity Commissioners.

I am no financial wizard, as our accountants will testify, but it seems to me that if you deduct 'Personnel Costs' (our UK administrator and fees for consultants), everything else has been spent primarily on actual conservation projects, but also on printing and distributing 10,000 copies of 'Psittascene' (without which the trust would have made little progress), representing the trust at international events, and meeting the basic costs every organisation faces. This means that we have spent 88.5% of total income on the purposes of the trust, and only 11.5% on paying people to carry out

the work required. I give The World Parrot Trust 75% of my time for nothing, or more accurately, less than nothing - read on.

You will see on your accounts note that Paradise Park has provided 'substantial uncharged benefits' for the Trust. When writing to a US member recently I summarised these benefits, donated by our modest family business over a five year period at a total of £215,000. In addition to that, Paradise Park's 'Eagles of Paradise' flying display has achieved cash donations for the trust from our generous park visitors of £72,000 over the same five years, and my wife and I donated £15,000 to get the trust started. Having therefore, with the help of our superb staff at Paradise Park, given £302,000 (\$470,000) to parrot conservation and welfare, we feel we might reasonably object to this individual's apparent need to draw attention to himself by misrepresenting the facts. While dealing with financial matters, may I say that when I write articles inviting my fellow aviculturists to 'put something back' to help parrot species in the wild, I do have some basis for thinking that Paradise Park is carrying its share of the burden. So come on folks, get out those cheque books and make a donation towards your favourite World Parrot Trust project. Perhaps the

HYACINTH FUND, featured in this issue, would be the one to choose. After all, no species has been so spectacularly decimated in the wild to satisfy the demands of us aviculturists. We all share this responsibility, this debt to nature.

Mike Reynolds

THE PHANTOM VIDEO

For quite a while we have been trying to put together a video describing the work of The World Parrot Trust. We actually completed one version, but it used much footage shot with poor sound quality and lighting, and we scrapped it.

We do have a lot of good quality footage of, for example, our Caribbean parrot buses, and other WPT projects, but we need to shoot new material to bring the record up to date. We also have the opportunity to use some of the marvellous film shot with Charlie Munn in Peru by Superflow Productions.

What we need is a member who has access to professional facilities, and can help us put our video together. If such a person exists, could they please contact either Mike or Alison Reynolds at the UK address.

Thanks.

INCOME AND EXPENDITURE ACCOUNT			
FOR THE YEAR ENDED 31ST MARCH, 1994			
	£	1994	£
		£	1993
		£	£
INCOME:			
Donations under deed of covenant	400		3,723
Other donations	66,674		46,907
		67,074	50,630
Membership fees	4,317		2,855
Sales of souvenirs etc	(2,804)		(1,809)
Cost of souvenirs etc		1,513	1,046
		592	1,235
Gross profit on sales of souvenirs etc		94,598	70,738
Bank interest received			
			37,208
TOTAL INCOME FOR YEAR			10,579
	44,358		12,392
EXPENDITURE:	11,665		339
Conservation projects	10,926		3,050
Educational literature	714		6,972
Personnel costs	5,690		494
Artwork and printing	11,028		764
Advertising and promotion	6,522		660
Postages and stationery	1,000		434
Conferences and travel	393		-
Accountancy charges	661		1,657
Bank charges and interest	704		
Sundry expenses	1,913		
Professional charges			95,574
Depreciation			£(976)
			74,549
DEFICIT FOR THE YEAR			£(3,811)

The Trust continued to receive substantial uncharged benefits from Paradise Park. These included free office facilities, computers, telephones, electricity, and staff time.

ORIGINAL PAINTING OF THE CUBAN AMAZON

This splendid painting of the Cuban Amazon *Amazona leucocephala* is by leading UK bird artist Malcolm Ellis. He has painted it specially for The World Parrot Trust, and the first offer of £600 will be accepted. Call Judith Venning on (UK) 0736 753365. Incidentally, our photograph was taken when the background of the painting was not completed.

Malcolm is prepared to paint any parrot species, subject to fitting the work into his busy schedule. Contact Judith Venning for details. A deposit of £200 will be required.

PARROTS, THEIR CARE, AVICULTURE AND CONSERVATION

Bill Noonan has kindly sent WPT a copy of his new book about parrots which is proving very popular in Australia. The book gives hints on basic parrot care and includes his personal comments on the need for conservation. It costs AUSS\$14.95 and is available from Bill at 69 Breimba Street, Grafton, New South Wales, Australia 2460.



PSINCERE THANKS

...to the many people and organisations who have made donations to the World Parrot Trust in recent months, or who have helped our work in various ways.

They include:-

Mr. Mark Hagen, Mike Pearson and new WPT Canada committee

Organisers of the 5th Canadian Parrot Symposium

Organisers of the French Parrot Symposium, Arras

Mrs. Heather Ewart, the Keith Ewart Charitable Trust

Michael Iversen & Line Wadum, Denmark

Freddie Virili of Italy

Organisers of the IAS Conference, Orlando, U.S.A.

James Rosindell, U.K.

Patagonia, U.S.A.

PARROT STUDBOOK COORDINATORS

R = U.K. Regional Studbook

I = International Studbook

E = European Studbook

BLUE-EYED COCKATOO
(*Cacatua ophthalmica*) *R*

PALM COCKATOO
(*Probosciger aterrimus*) *E*

Dr. Roger Wilkinson, Chester Zoo,
Upton-by-Chester, Cheshire.
CH2 1LH United Kingdom

CITRON-CRESTED COCKATOO
(*Cacatua sulphurea citrinocristata*) *E*

David Woolcock, Paradise Park
Hayle, Cornwall. TR27 4HY
United Kingdom

MOLUCCAN COCKATOO
(*Cacatua moluccensis*) *E*

David Field, Royal Zoological
Society of Scotland, Murrayfield,
Edinburgh. EH12 6TS Scotland

RED-VENTED COCKATOO
(*Cacatua haematuropygia*) *E*

Marc Boussekey, Espace
Zoologique, St. Martin-la-Plaine
42800 Rive de Gier, France.

HYACINTHINE MACAW
(*Anodorhynchus hyacinthinus*) *E*

Dr. Hubert Lucker, Zoologischer
Garten Dresden, Tiergartenstrasse 1
D-8020 Dresden, Germany.

HYACINTHINE MACAW
(*Anodorhynchus hyacinthinus*) *R*

Colin Bath, Paignton Zoological &
Botanical Gardens, Totnes Road,
Paignton, Devon.

GOLDEN CONURE
(*Aratinga guarouba*) *R*

C/O The Parrot Society
108b Fenlake Road, Bedford.
MK42 0EU

GOLDEN CONURE
(*Aratinga guarouba*) *I*

Alan Lieberman, San Diego Zoo,
PO Box 551, San Diego,
California, 9221190551 USA.

CUBAN AMAZON
(*Amazona leucocephala*)

LILACINE AMAZON
(*Amazona autumnalis lilacina*)
R, E

Mark Pilgrim, Chester Zoo,
Upton by Chester, Cheshire.
CH2 1LH United Kingdom

GOFFIN'S COCKATOO
(*Cacatua goffini*) *R*

SCARLET MACAW
(*Ara macao*) *R*

BUFFON'S MACAW
(*Ara ambigua*) *R*

RED-FRONTED MACAW
(*Ara rubrogenys*) *R*

David Woolcock, Paradise Park
Hayle, Cornwall. TR27 4HY U.K.

THICK-BILLED PARROT
(*Rhynchopsitta pachyrhyncha*) *R*

David Jeggo,
Jersey Wildlife Preservation Trust
Les Augres Manor, Trinity, Jersey,
Channel Islands.

BLUE-STREAKED LORY
(*Eos reticulata*) *R*

C/O The Parrot Society
108b Fenlake Road
Bedford. MK42 0EU

For all Amazon Studbooks please
contact:

The Amazona Society
C/O Mrs J. B. Perry, Ways Green
House, Queensway, Winsford,
Cheshire. CW7 1BH

For other Lory Studbooks
please contact:-
Trevor Buckell 0980 622573

IT'S TIME TO REVIVE



the
HYACINTH
F · U · N · D

In 1990 The World Parrot Trust launched its HYACINTH FUND, which raised support for the field research and conservation work of Dr. Charles A. Munn III and his Brazilian associates. Apart from extending Dr. Munn's research into the breeding biology of the Hyacinth Macaw, our funds helped the pioneering provision of vital artificial nestboxes for these birds.

At the January 1995 convention of the International Aviculturists Society Dr. Munn reported the discovery of a previously un-studied population of these macaws. The Trust wishes to provide the services of a field researcher trained by Charlie Munn, to report on the extent of this population, and what must be done to protect it. He will also search for other undiscovered populations.

You can support this effort by buying one of the last 200 of our magnificent limited edition prints of the Hyacinth Macaw: 'The noblest of them all', by Nicholas, a leading British wildlife artist. This



can be ordered from any of our WPT addresses (listed on page 19) for £38 or US\$55 including postage, or any equivalent currency. Please make checks or credit card payments to 'World Parrot Trust Hyacinth Fund'. We are also reprinting our very successful HYACINTH FUND T-shirts, and will offer them in future issues of 'Psittascene'.

Thirty years ago there may have been as many as 100,000 Hyacinth Macaws in the wild, with perhaps 1000 in captivity worldwide. Today there are thought to be only around 3000 to 5000 left in the wild, with possibly as many as 10,000 in captivity. Clearly, many thousands have died in the illegal trapping and shipment of these birds to us aviculturists - you may not like these facts, but they have to be faced. The preservation of this macaw in the wild is partly our responsibility, and we invite you to join us in the task.

**PLEASE PLAY YOUR PART IN THE SURVIVAL OF THE HYACINTH MACAW,
MAKE A SPECIAL DONATION, OR ORDER OUR SUPERB PRINT
FROM ANY OF OUR ADDRESSES.**

5 ENDANGERED BIRDS FROM OUR PARROT PORTFOLIO

St Vincent Parrot *Amazona guildingii*

In 1993 the Trust sent the third of its Caribbean 'parrot buses' to St Vincent. It has also funded a report by Andrew Greenwood MRCVS into the breeding programme in the government aviaries on St Vincent, and the improvements and avicultural support which will follow.



Hyacinth Macaw *Anodorhynchus hyacinthinus*

The World Parrot Trust has funded biological studies of this species by Charles Munn and Carlos Yamashita, and also the provision of supplementary nestboxes. Further field work is urgently needed.



Echo Parakeet *Psittacula echo*

The World Parrot Trust is in partnership with Jersey Wildlife Preservation Trust in a longterm programme to save this parakeet, which is the world's rarest parrot with only about 20 remaining.



Lear's Macaw *Anodorhynchus leari*

This major project is supervised for WPT by leading macaw researcher Dr. Charles A. Munn III, and is centred on the planting of thousands of Licuri palms needed by these macaws. Latest reports suggest that about 100 birds still exist.

Red-tailed Black Cockatoo

Calyptorhynchus banksii graptogyne

The Trust has a six year commitment to this programme to help preserve an endangered sub-species of this cockatoo in Victoria and South Australia.



PLEASE GET IN TOUCH IF YOU WOULD LIKE TO HELP THE SURVIVAL OF ANY OF THESE BIRDS.

AIMS OF THE WORLD PARROT TRUST

The objective of the trust is to promote the survival of all parrot species and the welfare of individual birds.

1. By educating the general public on the threat to parrot survival, and seeking their interest, concern and support.
2. By action to protect and preserve the natural habitats of parrots.
3. By gathering and disseminating information on the status of parrot populations in the wild and in captivity.
4. By advocating effective controls on the international trade in wild-caught parrots, and its replacement by captive-bred birds.
5. By encouraging co-operation in the breeding of parrots by aviculturists and zoological institutions and better liaison between the captive breeding community and conservation bodies, with the aim of creating self-sustaining populations of endangered species.
6. By promoting high standards in the keeping of parrots as pets.
7. By encouraging research projects, i.e. the veterinary care of parrots and the preservation of genetic diversity.
8. By any other means that may be appropriate.

Members receive our quarterly newsletter *PsittaScene* with news about parrot conservation, aviculture and welfare.

Please send your completed form to:

UNITED KINGDOM
World Parrot Trust, Glanmor House,
Hayle, Cornwall TR27 4HY

UNITED STATES OF AMERICA
PO Box 341141, Memphis, Tennessee 38184,
U.S.A.

CANADA
Mike Pearson, PO Box 29, Mount Hope, Ontario LOR 1W0, Canada.

BENELUX
Mrs. J Fiege, Graafseweg 37, 54 51 NA-MILL Netherlands.

FRANCE
M et Mme Prin, 55 Rue de la Fassiére, 45140 Ingre, France.

DENMARK
M Iversen, Alsikemarken 48 2860 Søborg, Denmark.



HELP SAVE THE PARROTS OF THE WORLD

Please join the Trust, or encourage friends to join.

SUBSCRIPTION RATES (please tick)

- UK and Europe (Single) £15
- UK and Europe (Family) £20
- Fellow (Life Member) £250/US\$400
Corporate (Annual)
- All Overseas Airmail £17/US\$25
(payment by Access/Visa preferred)
- Additional donation of £/US\$

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OR: I enclose cheque payable to the WPT.

I heard about the World Parrot Trust from.....

PARROTS IN THE WILD



GALAH or ROSEATE COCKATOO ***Eolophus roseicapillus***

These birds have greatly extended their range in Australia with the expansion of agriculture. Previously they were not able to live in arid areas but stock watering troughs now provide a constant source of water in many arid areas.

They are typical birds of the savannah woodlands and open grasslands of the interior, but are now becoming plentiful in coastal and mountainous areas. They are also common in many urban districts.

The birds will spend hours feeding on the ground in the morning and late afternoon, eating seeds, grain, roots, green shoots of wheat, ripening crops and bags of grain.

The breeding season varies from June to November in the north and August to January in the south. Nests are made in a hollow tree, usually eucalyptus and they will lay between two and five eggs. Both parents will brood for four weeks and the young will leave the nest at eight weeks after hatching. The parents will continue to feed them for a further two or three weeks.

Photo: Rosemary Low

We intend to continue this series of 'Parrots in the Wild', and if any reader can offer us a high quality shot that might be suitable, please get in touch.