



WORLD PARROT TRUST HOSTS PARROT SUMMIT

New action plan initiative agreed By Michael Reynolds.

It is nearly three years since a draft 'Parrot Action Plan' ground to a halt, after substantial differences of view between groups of scientists could not be resolved. The main areas of disagreement revolved around questions relating to the concept of 'sustainable yield' as it refers to wild-caught parrots, plus the contribution that captive breeding can make towards the conservation of parrots in the wild.

The World Parrot Trust had helped the process involved in creating the frustrated Action Plan, and regretted the lack of an internationally agreed document on parrot conservation which would be a reliable and regularly updated source of reference for information on the status of threatened species and the measures recommended for their preservation. Such an authoritative plan would be bound to focus attention, study, and funding in a way beneficial to all the parrots.

The World Parrot Trust sees itself as being 'on the side of the parrots'; advocates for their survival in the wild and their welfare in captivity. We put these concerns far above all other considerations, in particular such human frailties as the pursuit of profit or the enjoyment of academic disputes.

So while the Action Plan impasse continued, the Trust went on its way, investigating situations where parrots were in trouble, reporting them in *PsittaScene*, and doing its best to fund work to help these

birds survive.

Into this scene came Rod Hall MBE, who created British Airways Assisting Conservation (BAAC), which for more than twelve years has provided transport of people and cargo to help a number of international conservation organisations. Rod discovered WPT four years ago, and has helped us with flights to Mauritius, Brazil, the Caribbean, and the United States plus a multitude of animal and material cargos. You can imagine the immense help this has been to a small, new and impoverished charity trying to help a family of birds which occurs around the globe.

BAAC had recently assisted the World Pheasant Association with flights to a global conference in China, which was concerned with

producing a series of action plans for the pheasants. Rod pointed out how damaging it was to parrot conservation for there to be no agreed plan for them, and offered BAAC's help with a meeting of the various parrot experts. What a wonderful offer!

From our base in Cornwall, UK, we set to work, speaking to parrot specialists and organisations, and also to such august bodies as IUCN (the World Conservation Union), and BirdLife International, which had taken a leading role in the previous draft Parrot Action Plan. We invited representatives from the Association for Parrot Conservation (APC), which represents parrot experts from the Americas (see *PsittaScene* Vol.5 No.4, November 1993 for more detail). We persuaded Joe Forshaw to come

from Australia, and Mike Perrin came in from South Africa. The meeting took place on 27 and 28 June at the Croydon Park Hotel, London.

The attendees voted Joe Forshaw to be chairman, and the minutes of the meeting record the very positive discussions which took place. Two working groups were formed, one dealing with the new plan's production process and administrative details, the other with basic biological issues and scientific/technical matters.

As the meeting went on it became clear that when people of expertise, commitment and goodwill meet face to face, it is possible to find agreement on issues which are difficult to resolve at long distance.

To put it as simply as possible,



Design created for our award-winning Paraguay Ecobus by 'Ysanne', see article on pages 10 and 11.

“psittacine
(sit'á sîn) Belonging
or allied to the
parrots; parrot-like”



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(From L to R) Noel Snyder (APC), James Gilardi (APC), Alejandro Grajal (APC), Nigel Collar (BirdLife), Joe Forshaw, Phil McGowan (seated), Rod Hall (BAAC), Frank Lambert (IUCN), Mariano Gimenez-Dixon (IUCN), Mike Perrin (seated), David Waugh (WPT), Roland Wirth (ZGAP), Mike Reynolds (WPT). Other attendees were: Colin Bibby (BirdLife), Andrew Greenwood (WPT), Charlie Munn (WPT).

the net result was that agreement was reached to proceed with a new Parrot Action Plan. A coordinating committee will be formed, consisting of one representative each from IUCN, BirdLife International, APC, and WPT. This committee will appoint one or more central compilers and three regional compilers, one each for Neotropics; Afrotropics; and Asia, Australasia and the Pacific. These regional compilers will draw upon the expertise of all available contributors, and will provide introductions to 'set the scene' and identify particular regional problems. The central compiler(s) will contribute discussions on all key issues affecting global parrot conservation.

A maximum timescale of eighteen months was agreed for the completion of the new action plan, although it is hoped to improve on

that. It seems virtually certain that IUCN will publish and distribute the plan as part of their series of action plans. Funding for the preparation of the plan has to be found, and this will need about \$30000. The only offer towards this amount came from the World Parrot Trust, which can provide \$5000, subject to adequate total funding coming from other sources. The Trust has also agreed to supply secretarial and coordinating services for the project.

Rod Hall of BA says that this new initiative is far and away the most important challenge undertaken by WPT. All readers should note that British Airways have donated around £20000 worth of flights to get this initiative under way - please remember BA's long term commitment to supporting conservation when making your own travel arrangements. The World

Parrot Trust incurred £3000 of expenses in arranging the meeting.

I would like to emphasise that this new Parrot Action Plan is intended to encompass all available knowledge about the parrots of the world, together with recommendations for action to help their survival. It is **everybody's** plan, and when we have our compilers in place we will invite contributions from every possible source. In addition to information and expertise, we will need actual cash to cover the costs of compilation, so please consider whether you or any organisation you are connected with, would like to have a part in funding this very important task.

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NEW APPOINTMENT FOR DAVID WAUGH

Regular readers of this newsletter will be aware of the important work carried out for The World Parrot Trust by Dr. David Waugh. Over the past two years he has helped us as a consultant on a case by case basis, and investigated and reported on a number of parrot conservation situations. Notable amongst these has been the Red-tailed Amazon *Amazona brasiliensis*, which led to our working with Dresden Zoo and Fonds fur Bedrohte Papageien to support the vital task of preserving the fledglings from poaching.

Another species which David has investigated for us is Buffon's Macaw *Ara ambigu*. At the

present time we are still working on how best we might be able to assist in the protection of a remnant population in Ecuador.

David has been offered, and has accepted, a most interesting position as Scientific Director of the Loro Parque Foundation. In that role he will be able to use his considerable expertise - much of it gathered in his previous position as Director of Jersey Wildlife Preservation Trust's International Training School - to ensure that Loro Parque's substantial funding potential is used effectively to assist the conservation of parrots.

I am sure members will join us in wishing David well in his exciting new job. Our most basic



David ringing an *A. barbadensis* on Margarita Island, Venezuela.

aim is to encourage all activity designed to help the survival of parrots in the wild, so we should be pleased that substantial new funds are likely to be made available, and that they will be deployed by someone very well qualified to do so.

Michael Reynolds

ECOLOGY AND CONSERVATION OF THE RED-TAILED AMAZON

By Paulo Martuscelli

Summary

The Red-tailed Amazon *Amazona brasiliensis* was found to be restricted to a complex mosaic of forests growing on the narrow coastal plain of eastern Brazil. The species depends on habitat heterogeneity both for food and breeding. In São Paulo state the 1,550 individuals are divided into 16 populations. The global total of the species may be around 3,600 birds. They feed mainly on fruits, flowers and nectar, also occasionally insects. Most nests are found in permanently flooded forest, apparently because of greater cavity availability. Poaching has had a great impact and is the most immediate threat to the species.

Introduction

The Red-tailed Amazon *Amazona brasiliensis* is a threatened species of parrot endemic to a narrow stretch of forest along the coasts of São Paulo, Paraná and Santa Catarina states, eastern Brazil (Collar et al. 1992). The first time it was recorded by scientists was in 1821, when J. Natterer collected one individual at Mel island, Paran, with later records from southern São Paulo (Collar et al. 1992), but long before this, in 1501, A. Vieira dos Santos described "huge whirlwinds made of flying amazons, toucans and parakeets, and armies of beautiful ibises dressed in scarlet" over Paranguá bay (freely translated from Paulino de Almeida 1966).

The species is known from lowland forest up to 700m elevation, also using adjacent habitats like mangroves and sand-plain forest both for feeding and breeding (Scherer-Neto 1989). Red-tailed Amazons have been found to feed on over 42 species of fruits, leaves and flowers, *Callophyllum brasiliense* (Gutiferae) fruits being considered a particularly important resource (Scherer-Neto 1989, Collar et al. 1992). Six of 18 recorded nests were found in the same species of tree, five others being recorded in dead palms (Scherer-Neto 1989).

The known population of the species is estimated to lie between 2,000 and 4,000 individuals, restricted to a 6,000 km² area (Diefenbach and Goldhammer 1986, Scherer-Neto 1988, 1989, Collar et al. 1992). The main factors affecting its survival have been habitat destruction (most intense in

São Paulo), the felling of trees for the building of canoes, and illegal trade, which has increased since the 1980's; also, killing for food and target practice by local people ('caícaras') has been a serious problem (Collar et al. 1992).

In this paper I present the results of a five-year study of the ecology, distribution and conservation of the Red-tailed Amazon in São Paulo state.

Study and Methods

Over the period 1991-1994, the distribution and population size of the Red-tailed Amazon was assessed through exhaustive searches of virtually all the remaining areas of Atlantic forest left in the region, spanning the entire length (over 550km) of the São Paulo state coastal belt (Figure 1). In areas where the parrot was located, local populations were censused in the night roosts from April to September 1993.

Censuses were carried out after the night roosts used by each parrot population were located, a minimum of two counts (one in late afternoon and one in the early morning) being made at each roost. Since each population has several different roosts and moves between them, the figure used for population size was the maximum number of parrots counted at any of a given population's roosts.

During the censuses the direction of flight of birds arriving at and departing from a given roost, was the same for all birds even though they did not all arrive and depart at the same time. This direction was recorded and assumed to indicate the general foraging areas of each flock of parrots that made up the population, and I used this information to establish the ranges and identity of the different populations. I assumed that flocks which belonged to the same populations, used the same roosts and foraging areas. During censuses I also counted family groups (adults and juveniles) in order to estimate recruitment.

Breeding biology was studied through the intensive monitoring of nine nests. Another 40 nests were discovered at different stages of the breeding cycle, and for these the characteristics of habitat, nest tree height, number of eggs or nestlings and breeding success were recorded.

Available nest cavities were

counted in 1/ha plots marked in each of the seven forest types in the region. Each of the seven plots was exhaustively searched for cavities that a parrot could use for nesting. This was done only to obtain a general impression of the distribution of cavities in the forest mosaic.

Numbers of poached nestlings were assessed by interviews with trappers, middlemen and aviculturists throughout the state of São Paulo. In most cases the actual number of captured birds could be determined directly, as most trappers would show me their catch.

Population

In 1993 the amazon population along the São Paulo coast was 1,550 individuals, mostly concentrated in the south. The amazons were divided into 16 distinct populations which numbered from 20 to 115 birds (for security reasons, no further details are given here). A certain degree of intermingling occurs between neighbouring

populations, as noted at Ilha Cananéia, where the resident birds were once joined by individuals from Ilha Comprida, making a total of 157 birds.

The amazons are faithful to traditional roosts, using them as long as the trees are standing. Some roosts are located in isolated groups of trees, left standing when the surrounding areas were cleared, often quite close to towns. This behaviour makes censusing easier.

Food habits

I observed Red-tailed Amazons feeding on 68 different plant species in 143 feeding bouts. Main food plants were *Syagrus romanzoffianum*, *Psidium cattleianum* and *Callophyllum brasiliense*, all of which are found in different forest types.

Most records were of fruits (88.7%), both pulp and seed being eaten in most instances. Flowers and nectar accounted for 9.8% of the records, the amazons selecting species with abundant nectar that also attracted other birds like



Red-tailed Amazon *A. brasiliensis*.

Photo: Paulo Martuscelli

hummingbirds, Bananaquits *Coereba flaveola* and tanagers. When feeding on *Noranthea* flowers only the large nectaries were eaten. *Pseudobombax* flowers had their nectaries and ovary eaten without being plucked from the tree, whereas *Erythrina* flowers were plucked and completely destroyed, their cups being ingested.

Breeding biology

Data on 49 nest cavities was obtained. There was a great deal of variability in nest height and size. For example, nest cavities ranged from 4.2m to 0.2m deep, the highest nest being 15m up in a tree, while the lowest was only 1.0m above the water in a swamp. One nest was located in an arboreal termitarium 3m above the ground. Another was in a 20cm deep cavity amid the petioles in the crown of a live *Attalea* palm. (Both nests successfully raised two nestlings to pre-fledging stage, when the chicks were poached). The general impression was that the amazons are not strongly stereotyped in nest-site selection.

Of 49 nests, 67% were in dead trees. The great majority of the nests (79.5%) were found in flooded forest and at the interface between flooded forest and other forest types. Dead trees occur throughout these habitats, owing to the variations in water level, which occasionally cause flooding in forest patches on adjacent higher ground, killing the trees, mostly *Syagrus* and *Callophyllum*.

Searches for cavities in the different forest types showed zero cavities per hectare in mangrove forest, 7/ha in sandplain forest (only in the tallest type growing on Pleistocene soils), 18/ha in seasonally flooded forest, and 39/ha in flooded forest. It was not possible to make a thorough search for cavities in transitional forest because of the heavy bromeliad populations of this forest type and because of the tallness of the trees; data from such areas were thus bound to be underestimates and were not used.

The minimum distance between nests simultaneously used by different pairs was 8m. Territorial behaviour was restricted to the immediate vicinity of the nest.

Observations on the behaviour of birds at roosts revealed that pairs kept together within flocks, both when flying and feeding. This strongly suggests that amazon pairs remain together throughout the year.

From August to early September pairs leave the collective roost, keeping separate from other amazons during the day. The pairs start prospecting for potential nest cavities, one of them being more active in the search (observations of copulating birds suggest that the active bird seems more likely to be

the male). After finding a cavity, one of the birds calls to the other and both examine it. The investigation of cavities is, however, a behaviour that occurs throughout the year.

After a cavity is selected, by the middle of September, courtship begins at the collective roost and around the nest. The male walks along the branches around the perched female, with head and facial feathers raised, giving him a fluffy appearance, and he opens his tail displaying its red patch. During this period one bird actively attempts to keep by the side of the other. Allopreening and regurgitating food into the partner's bill are common. Copulation has been observed from early October, coinciding with the discovery of the first active nests.

The number of amazons using the collective nocturnal roosts diminishes as females begin to spend the night at their nests a few days before laying, although some of the males continue to sleep at the roosts. Of nine nests, four males stayed in the collective roosts at the beginning of incubation, the other five roosting with the females in the nests. Only after the first week of incubation did all the males take to roosting in the nests. The collective roosts are not used subsequently during the breeding season, and roosting habits of the non-breeding birds at this time are not known.

Of the nine nests closely monitored, five had four eggs and four had three eggs, laid at two-day intervals. Incubation lasted 27-28 days, and began with the first egg, so that hatching was asynchronous. This took place in late October and early November. Not all eggs hatched. Three nests had three chicks, five had two and one had one. The three nests with three chicks had contained four eggs each; of the five nests with two chicks, two had held four eggs and three had three; the nest with one chick had three eggs.

The young were covered by feathers at 38 days, and obtained their fully grown flight feathers at 53-55 days. All nests were poached, but observations on captive birds suggested that fledglings would begin to leave the nest by early December at an early age of 50-55 days.

Some pairs have a delayed nesting cycle. I have found nestlings as late as early April. These may represent re-nesting of pairs which lost their first brood earlier in the season.

All 49 nests studied failed. Forty-one were poached by trappers taking nestlings for sale. The remaining eight failures were caused by natural predators such as snakes, opossums and owls (six instances) and by strong winds causing trees to fall (two instances).

I did not witness interference or failure caused by African bees.

A crude measure of recruitment rates could be made by observations of family groups which clearly contained juvenile birds in and immediately following the main fledging period. The protected population of 11 pairs breeding in Ilha do Cardoso State Park fledged 26 chicks in 1991, while in 1992 15 pairs produced 31 offspring (although for reasons unknown the total population, as censused at nocturnal roosts, remained stable at 94-98 individuals throughout the study period). At Cananéia, where poaching occurs, 87 parrots produced two fledglings in 1990-1991 and four in 1991-1992.

Threats

During my study, only one instance of natural predation of adult Red-tailed Amazons was witnessed, when a Mantled Hawk *Leucopternis polionota* killed a flying parrot returning to the roost at Ilha do Cardoso. Natural predators and winds take their toll of nestlings (see above). Strong intermittent winds of 60-80kph, caused by the approach of cold fronts, occur during the onset of the rainy season in September/October, felling dead and emergent trees. The shallow roots of most trees make lowland forests vulnerable to these winds. For example, of 39 potential nest cavities in one flooded forest plot, seven were destroyed by wind in September 1992.

Deforestation has been identified as a threat to the survival of the Red-tailed Amazon. From 1985 to 1990, 12.5km² of lowland and mangrove forests were destroyed in São Paulo, a 1.27% decrease in available habitat. In all, 35.54km² of Red-tailed Amazon habitat was destroyed in the entire species's range in that five-year period (SOS Mata Atlântica 1993).

The main cause of habitat destruction has been the building of holiday and second homes. Most of the remaining lowland forest all over São Paulo is already held by development enterprises which are ready to clear their areas of land as soon as political opportunity permits.

Another threat is the expansion of agriculture and water-buffalo ranching. The state of São Paulo has implemented an official policy of converting wetlands into rice and other grain plantations. Such a policy is a direct threat not only to the main breeding grounds but also the foraging areas of the species. Water-buffalo ranching, an increasingly popular option in the marshy lowlands where the amazon lives, is a direct competitor for food resources such as *Erythrina* and *Gomidesia* (the buffalo browse these small trees)

and *Syagrus* and *Euterpe* (which buffalo will push over to obtain the leaves and fruit). Moreover, ranchers clear forest to increase the area available for pasture.

Local people traditionally use hardwoods for making canoes, paddles and homes. The favoured timbers are from *Callophyllum* and all large myrtaceous and lauraceous trees. Such species provide both nest cavities and food for the amazons. The increasingly commercial nature of what were once subsistence crafts is leading to the over-exploitation of the resource, and to the elimination of all large trees in the more accessible areas.

Commercial exploitation of *Tabebuia cassinoides* trees and *Euterpe edulis* palms, although mostly illegal, is now taking place on a large scale, destroying both habitat and food resources. Wood from *Tabebuia* is used for making pencils for export to European markets. The enterprises involved are based in the city of Iguape and are controlled by multinational companies. The intensive harvesting of *Euterpe* palm-hearts, which are mostly consumed in Brazil, now represents a serious conservation problem throughout the Atlantic forest, as these fruits are probably a keystone resource for the large frugivore community of the ecosystem (Galetti in prep.), including the threatened Black-fronted Piping-guan *Pipile jacutinga*, Blue-bellied Parrot *Triclarina malachitacea* and Cinnamon-vented Piha *Lipaugus lanioides* (Collar et al. 1992).

Poaching for the cage-bird market is, however, the most immediate threat to the species. This began in 1980, when traffickers first found the species's breeding area. Interest has been so great that trappers have now started capturing adults and taking eggs from the nests. All trappers are from traditional communities, both "caícaras" (artisan fishermen) and Guarani Indians.

In the 1991-1992 breeding season, 356 nestlings were stolen from nests in the municipalities of Iguape, Cananéia and Ilha Comprida alone, which cover only 25% of the species's total range (Martuscelli 1994). Poaching has been recorded at every single locality in which the species occurs, even the ones where the population is relictual. The result has been virtually zero recruitment of young birds into the population (see Breeding).

Trappers frequently fell the nest tree, which diminishes the overall availability of nest sites. The two nests found in a termitarium and amongst the petioles of a palm were in an area of high poaching levels and apparently no natural cavities.



The author deep in the swamp that covers much of the Red-tailed Amazon's territory.

Hunting amazons for food still takes place. In São Paulo I recorded two instances. One case involved children killing a bird with slingshots. The other occurred at Cananéia in June 1990, when 40 birds from a roosting flock of 87 were shot by local caiçaras for target practice and food.

Captive breeding has never occurred in either Brazil or Europe (Low 1992). (Breeding achieved in UK in 1994 - Ed.). The so-called captive-bred birds offered for sale by prominent Brazilian aviculturists are in fact wild-caught. All the captive populations are composed of birds illegally trapped and smuggled out of Brazil (Martuscelli 1994a). Indeed, it is the interest of foreign bird-fanciers and zoos, mainly in Europe, that has fuelled the poaching, by creating a demand among Brazilian aviculturists acting as middlemen. All the people trafficking in the species in Brazil are well known, but the government agencies have been lax in intervening.

Discussion

The Red-tailed Amazon is restricted to the narrow forested stretch between the sea and the coastal massifs. This habitat was probably once much more extensive, perhaps double its historical area, during the last sea regression 15,000 BC (Suguio et al. 1978), when the continental shelf was exposed. It is to be noted that the broadest stretch of shelf is exactly adjacent to the area in which the amazon survives today.

The findings of this study strongly suggest that Red-tailed Amazon distribution is tied to the

sympatric occurrence of mangroves and forests dominated by *Callophyllum brasiliense* and *Tabebuia cassinoides*, and higher amazon densities are attained only where there is a rich mosaic that includes both mangrove and all types of lowland forest. The southern limit for the sympatry of these assemblages is at 26° 50'S (Reitz et al. 1978, Cintron-Molero and Schaefer-Novelli 1992), close to where the southernmost population of amazons is found. This also strengthens the case for regarding the old record of the species from Rio Grande do Sul (von Ihering 1899) as erroneous. Moreover it helps explain the apparent puzzle of the species's concentration south of the Ribeira de Iguape river, given that a fairly large (c. 400km²) tract of lowland forest exists in the Juréia-Itatins Ecological Station (c. 24°20'S 47°10'W).

The area is protected from trappers, yet only 40 amazons live there. However, it is only south of the river that there are broad expanses of mangrove bordering lowland forest. At Juréia-Itatins, amazons are found in the places where mangrove is associated with lowland forest, while at Pariquera-Abaixo State Park (24°40'S 47°50'W), where all forest types are disjunct from mangrove, amazons are present only seasonally. The northern limit of the sympatry of mangrove and lowland forests is the point where the Serra do Mar massif approaches the sea and there is almost no plain, around the cities of Santos and Cubatão (c. 24°00'S). From this point to the border with Rio de Janeiro (23°20'S)

the only amazons found in the coastal plain are *Amazona farinosa* and *A. rhodocorytha* (P. Martuscelli and F. Olmos unpubl. data).

The population of the species is 1,550 birds in São Paulo, a far greater number than the 300 estimated by Scherer-Neto (1989). The earlier figure seems to be the product of limited survey time and the missing of several important areas located in less accessible forest and swampy areas. In Paraná Scherer-Neto (1989) found 2,101 birds during four years of fieldwork. This figure was arrived at by pooling numbers found at collective nocturnal roosts and censuses while foraging and flying, and so may be an overestimate.

Red-tailed Amazons use a wide range of fruit resources, being mainly seed predators. Feeding on arthropods has rarely been recorded in Neotropical parrots, but it is possibly commoner than thought (Martuscelli 1994b). Food plants grow in all types of forest in the region, but plants found in swampy areas seem most important. Breeding is synchronised with the fruiting of trees with large crops (most Myrtaceae, *Callophyllum brasiliense*), especially those growing in restinga. These data agree with de Grande and Lopes (1981) and Kirizawa et al. (1992).

The amazons do not seem to be selective with regard to nest cavities, using what is available and showing a certain degree of adaptability.

Conservation

Trade is at present the most immediate threat to the Red-tailed Amazon, despite views to the contrary in Low (1984), Scherer-Neto (1988, 1989) and Silva (1991), who all consider habitat destruction to be a worse threat. The only places where nests can be expected to escape poaching are Ilha do Cardoso State Park and Juréia-Itatins Ecological Station, and even adult birds are now being captured. Poaching has been so intense that the market has been flooded by Red-tailed Amazons, causing the prices to fall. In the early 1990's, Argentinian middlemen were selling the species for as little as US\$90 (Bertonatti 1992).

It is clearly vital to stop this international trafficking. Despite being listed on CITES Appendix I and being fully protected under Brazilian law, the species is becoming increasingly common in collections in Europe and the USA. As stated above, all birds in these collections have been smuggled from Brazil and their possession is the result of illegal acts. In other words bird-fanciers around the world are pushing the Red-tailed Amazon to the brink of extinction, as they have done with

another Brazilian endemic psittacine, Spix's Macaw *Cyanopsitta spixii*.

Of 16 populations in São Paulo state only two, totalling 138 birds, are in protected areas such as parks or ecological stations and are not being poached. Occurrence within a protected area is, however, no guarantee on this issue. Another three populations, involving 254 birds, are being poached despite their presence inside protected areas. The main problem is lack of effective protection for most areas, which are "paper parks". Of the remaining habitat in São Paulo, only around 470km² are in protected areas, and this is probably too low a figure for the long-term security of the species.

Based on the surveys undertaken during this study, four new protected areas have been proposed: on Ilha Comprida, on the mainland facing Ilha do Cardoso, at Parquera-açu and Mongaguá. These, together with existing protected areas, would encompass the bulk of the population and remaining habitat in São Paulo. Nevertheless, a stronger commitment by the government is necessary to implement the full establishment of the parks and to provide them with adequate financial support.

The proposed reserves would also protect populations of several other threatened species such as Golden-tailed Parrotlet *Touit surda* and Brown-backed Parrotlet *T. melanonota*, Blue-bellied Parrot, White-necked Hawk *Leucopternis lacermulata*, Black-headed Berryeater *Carpornis melanocephala*, plus mammals such as the black-faced lion tamarin *Leontopithecus caissara* and giant otter *Pteronura brasiliensis*.

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THE PARROT PHENOMENON

The past, present and future of the world's most charismatic birds

By Michael Reynolds.

As our species has pursued its dominance of our planet and its resources, other animals have been bent to our will and exploited in every conceivable way. We have hunted, domesticated, traded and exhibited them. Much of the time we treat them with indifference, sometimes with cruelty, denying them the freedoms they were created to enjoy. A lucky few will encounter respect, consideration, even affection.

This may well be a statement of the obvious, but it serves as a background for a review of the present position of an important family of birds, the parrots. Over 300 species exist, in a kaleidoscopic array of sizes, colours and characteristics. The World Parrot Trust has described them as 'the world's most charismatic birds'. Since the earliest times man has valued them as prestigious and fascinating household ornaments. Their hardiness, longevity and ability to mimic our speech have placed them in a unique position in our homes.

This situation endured for hundreds of years and continued virtually unchanged until the second half of this century. At this point a variety of factors combined to bring about dramatic changes for the parrots. With increased affluence in the industrial world, a demand for prestige exotic pets stimulated traders to bring in supplies of wild-caught parrots. At the same time, transport by air became a readily available facility. During the 1970s and 1980s, millions of parrots were removed from the wild, and those that survived, perhaps 25%, ended up as

pet or 'companion' birds in homes around the world.

A survey carried out by MORI for The World Parrot Trust showed that there are 600,000 pet parrots in the United Kingdom; there are also about 4M budgerigars.

So there appears to be one large pet parrot per 100 population in Britain. If this figure is extrapolated globally, and bearing in mind that parrots are more frequently kept as household pets in the developing world, it is reasonable to assume that there are around 50 million pet parrots worldwide. We will return to this statistic later.

The next development in the history of the parrots is probably the most profound: the discovery, refinement and dissemination of the techniques required to breed them in captivity. This was a cumulative process, with spasmodic breedings occurring, mostly in private collections, from the 1920's to the 1960's. A major factor inhibiting breeding success was that almost all parrot species are not sexually dimorphic, i.e. not capable of being sexed visually. Since most parrots, if kept as a 'pair' of the same sex, will for social reasons behave rather as if they were a true pair, this depressed early success in breeding parrots in captivity. In the late 1970's the use of laparoscopy to establish conclusively the sex of parrots came into use, and this rapidly transformed the prospects of success. At last, pet parrots of previously unknown sex could be paired up with certainty, kept in aviaries, provided with nestboxes, given more adequate nutrition, and might then reward their owner with some chicks.



Wild caught Goffin's Cockatoos, Tanimbar, Indonesia. Many of these birds died, but the WPT managed to get 300 released.

In 1983 John and Pat Stoodley published their first book, 'Parrot Production'. It is difficult to overstate the importance of this book, which presented to aviculturists worldwide proven methods to achieve the successful artificial incubation of parrot eggs, and the hand-rearing of the chicks to maturity. The consequences of this expansion of knowledge and skills were extensive: some bad, some not so bad.

Initially, the demand for the trapping and importation of wild parrots increased, as more and more 'aviculturists' discovered that what had been a costly hobby was capable of becoming a profitable home-based business. This increased the pressure on wild populations at a time when other adverse factors, primarily the destruction of habitat, were also accelerating.

As time went by, the only positive aspect of this process - from the point of view of ensuring the survival of parrot species in the wild - began to emerge. The ability of parrot breeders to supply the pet trade with young, friendly, hand-reared birds diminished the demand for wild-caught parrots. This traffic received a further massive blow in the early 1990s when 'green' activists, notably the Environmental Investigation Agency, convinced the majority of airlines that the mass shipment of birds by air was not humane, and alienated airline customers.

The work of CITES (Convention on the International Trade in

Endangered Species) has also helped, and most parrot range countries have banned the export of their native birds, or have imposed quotas. Some countries, however, have done nothing, and others fail to carry out their conservation commitments.

In 1994 the United States enacted the Wild Bird Conservation Act, which effectively makes illegal the importation into the US of wild-caught birds. Similar legislation is under discussion in the European Union, but it seems likely to be many years before anything as helpful to the parrots will become law within Europe.

In the meantime, parrots have become big business. The World Parrot Trust has also called them 'the billion dollar birds'. This is not far-fetched as an estimate of annual global expenditure on parrots, if one includes the purchase of birds both wild-caught and aviary-bred, transportation, the cost of cages, aviaries, buildings, incubators and other equipment, food, medication, veterinary treatment and research, travel, visits to zoos and bird parks, wages and salaries, conferences, conservation projects, printing, publications, and insurance.

No other family of birds attracts this degree of interest and investment. The reason is simple: parrots are money. When a quite 'ordinary' parrot can be sold for \$1000, and a very special one for \$20000, the whole affair ceases to be a hobby and becomes a business. In the world as it exists



A pet parrot is part of life in developing countries.

today, if an enterprise will make money, that's sufficient justification; no ethics come up for consideration, and responsibility towards wild creatures barely exists.

It gets worse than this. When parrots cannot be taken from the wild legally, or transported legally, they are stolen from wild nests and smuggled. The authorities in many countries now cooperate to prevent these activities, and are becoming increasingly successful.

Prosecutions are mounting, and penalties are increasing. An excurator of one of the world's largest parrot collections is currently charged with 14 smuggling offences, and faces a maximum of 45 years jail and \$2M fines.

It should be said here that in addition to the financial incentives, there exists the 'collector's syndrome'. Having suffered a mild form of this some years ago, the writer can understand it, but deplors the cases in which no legal, moral or financial restraints are evident. Large collections built up for reasons of ego and/or commercial gain, and with no regard whatever for the laws of the countries of origin or the requirements of CITES, are the worst possible role models for the

ordinary parrot keeper. A high degree of cynicism has been displayed, for example in the case of collectors who received smuggled specimens of a parrot on the brink of extinction in the wild, then proposed that a special committee be set up to promote the 'recovery' of this species. First order of business for this committee was to negotiate an amnesty for the collectors who had acquired their birds illegally.

On the credit side in the man/parrot relationship we can cite a number of conservation initiatives by governments, NGOs and individuals. Parrots are frequently quoted as potential 'flagship species' for the promotion of environmental awareness, and some programmes, such as Paul Butler and RARE's educational programmes in the Caribbean and elsewhere, have had considerable success.

Parrots have also been key factors in the development of ecotourism, and as practised by Dr. Charles A. Munn III of the Wildlife Conservation Society - NYZS in Peru, have contributed to the protection of substantial areas of rainforest.

The essential fact remains, however, that about 100 of the 330 species of parrot are threatened by



A captive-bred, hand-reared parrot can be a companion for life.

the destruction of their natural habitats, and continuing trapping for trade. This is, of course, only one aspect of the loss of genetic diversity that blights our planet, so why should we pay particular attention to the plight of the parrots?

Perhaps the answer is that while other flagship species have been used successfully to highlight the need to save the forests and the oceans, there is one essential difference: tigers, apes and whales don't live in our houses. The parrots do, and that gives them their special value as communicators and educators, with the potential to inspire us and our children with the urgency that is needed.

To exploit this potential is part of the long term strategy of The World Parrot Trust, a charity which was founded in the United Kingdom in 1989. The trust is now also established as World Parrot Trust USA Inc., and has linked trusts in Belgium, Canada, Denmark and Holland. It has raised £600,000 (\$900,000) and used these funds to pursue its stated objectives: the survival of parrot species in the wild, and the welfare of every individual parrot.

The trust sprang from avicultural roots, and strongly defends and represents the fascinating hobby of keeping and breeding parrots in captivity. At the same time, it urges aviculturists to accept a proper measure of responsibility for the conservation of parrots in the wild. It seeks good relations with scientific and governmental bodies, and works on a variety of joint issues with IUCN, BirdLife International, the Association for Parrot Conservation, the Conservation Breeding Specialist Group, Jersey Wildlife Preservation Trust, and others.

The trust has a substantial track record in identifying and supporting parrot conservation projects. Its newsletter 'PsittaScene', and its project review 'Parrot Portfolio' provide much

detail of the work carried out, so far, in 18 countries for the benefit of 20 species of parrot. There is little doubt that the World Parrot Trust's initiatives have stimulated other avicultural organisations into similar activity.

Key individuals in the 'parrot world' give unqualified support to the trust. These include Rosemary Low, author of 'Endangered Parrots' and 20 more books on parrots, who also edits the newsletter. Joseph M. Forshaw, co-author of 'Parrots of the World', acts as an advisor. Dr. Charles A. Munn III, an authority on the conservation of macaws, is a trustee of WPT-USA, as are Dr. Wm. Richard Porter of the International Aviculturists Society and Dr. Andrew Greenwood of the International Zoo Veterinary Group. The trust does not intend to become a complex organisation, preferring the luxury of being able to act with the minimum of debate, but the maximum of sound advice.

The World Parrot Trust has been able to draw attention towards the current threats to parrots in the wild, their sometimes excessive exploitation in captivity, and the urgent need to oppose any examples of cruelty or illegality. It would like to see a significant percentage of the profits created in the parrot business go towards helping the birds in the wild. Very slowly but surely, it sees progress in its aims.

With fifty million parrots kept as pets, and perhaps another five million breeding birds in aviaries, the parrots of the world are also a resource for conservation awareness that has not yet been tapped. In addition to expanding its field conservation work, the trust intends to develop education projects aimed at establishing the parrots as the logical 'spokespersons' for the whole of nature. Only by encouraging future generations to protect and preserve our natural heritage can we hope to ensure the future of all species, including our own.



A trapper takes a Blue-fronted Amazon chick from a wild nest. The chick will probably die, the nest tree may survive. Research shows, however, that over 100,000 nest trees have been destroyed in Argentina alone.

BBC Wildlife Magazine Zoo Conservation Awards for Excellence

In July 1994, wildlife consultant and ex-zookeeper Stefan Ormrod wrote a withering attack in this magazine on the validity of most captive-breeding programmes in zoos. Too expensive, he said, too complex for most zoos, too many failures and too dangerous for wild populations - 'greenwash' in most cases. "Although some species may find salvation through captive propagation," he concluded, "it is patently dishonest for zoos to claim a major role in conservation or, considering the atrocious standards of most of them, that they are ever likely to."

Strong stuff, but was he right?

No way, retorted the zoo industry in an equally bruising response, condemning Stefan's views as damaging, inaccurate and downright "unfair."

Out of this controversy came the idea for a BBC Wildlife Magazine Zoo Conservation Award. In effect, it was a challenge to the zoo industry to put forward real conservation projects to be judged. The first aim: to reward British zoos which can be shown to have genuinely helped the survival in the wild of an animal species, a group of species or a threatened habitat. The second aim: to discover an ideal project to act as a model for others.

Though there were detailed ground rules for the competition, the judges were especially looking for projects demonstrating an holistic and symbiotic approach to conservation. In other words, schemes supporting existing conservation initiatives, and those exploring ways of preserving the whole ecosystem, rather than the more traditional approach of releasing captive-bred animals into exclusionist and protected reserves. If local people were involved that was a bonus.

No wonder then, that the unanimous winner of the main award is a novel project combining on-the-ground education and conservation, with captive-breeding playing a supportive role.

◆ The judges were: Peter Olney, director of The Federation of Zoological Gardens of Great Britain and Ireland; Bob Golding, zoo inspector, former zoo director and a designer of zoo and museum interpretive display systems; John Gripper, zoo inspector, vet and regular consultant to the Born Free Foundation; Nicholas Gould, editor of International Zoo News; John Mackinnon, conservationist, zoologist and director of the Asian Bureau for Conservation.

Winner of the BBC Wildlife Magazine Zoo Conservation Award for Excellence.

The Parrot Bus Projects - Paradise Park, Hayle, Cornwall

Squawking like a parrot and rattling down the roughest of roads, the Jacquot Express not only causes a stir wherever it goes, but has also helped secure the future of one of the world's most endangered parrots by turning it into a potent national symbol.

A one-time British Leyland bus, the 'Express' is a brightly painted mobile classroom which has been touring remote villages on the tiny Caribbean island of St Lucia since it first drove off a Geest banana boat from Britain in April 1991.

If successful conservation is about winning the hearts and minds of the people, then that's what the Jacquot Express is designed to do. Stripped of its original seats, the bus has been fitted with lively interactive displays, games and videos explaining the threats facing the St Lucia parrot *Amazona versicolor* - locally nicknamed 'the Jacquot'.

Hit by hunting, habitat loss and occasional hurricanes, the Jacquot's numbers are believed to have dropped from an estimated 1,000 birds in 1950, to only 100 in 1975. It was this decline which spurred conservationists into action. In early 1990, David Woolcock, curator of Paradise Park in



Healthy as a Parrot. A trainee biologist from Peru feeds a St Vincent parrot chick at Paradise Park, where the birds are captive-bred and hand-reared.

Cornwall, and a trustee of the World Parrot Trust, took up the challenge of St Lucian conservationist Paul Butler to help bring the bird back from the brink of extinction.

The solution was not conventional captive-breeding and release into a reserve, but a programme of travelling to the towns and villages of St Lucia to educate local children. The Jacquot Express was born, with impressive results. St Lucians have embraced the Jacquot as a national emblem, and government hunting bans and forest protection have been enforced with local support. The ICBP/IUCN Birds Red Data



Big trip to birdland. St Lucian schoolchildren get ready for an experience on the Jacquot Express. The Caribbean island is "a nation sensitised to the importance" of an endangered species.

PARADISE PARK WINS MAJOR ZOO CONSERVATION AWARD



Vincie the vulnerable. The St Vincent parrot is one of at least four endangered Caribbean parrots now being rescued through public education projects.

Book now estimates that there are 300-350 St Lucia Parrots on the island, and "a nation sensitised to the importance of the species."

The success of the Jacquot Express did not end on St Lucia. In 1992, a second parrot bus was delivered to Dominica to spread the conservation message on behalf of the red-necked amazon and the imperial amazon, known locally as 'Sisserou'. In 1993, The Vincie Express started trundling around the island of St Vincent for the St Vincent parrot, backed by a captive-breeding programme at Paradise Park in Cornwall, and earlier this year, a fourth bus was launched in Paraguay.

Though the project works alongside captive-breeding programmes and the creation of protected reserves, it is undoubtedly the buses themselves which have focused attention of ordinary local people on the plight of the parrots.

Their education tools include a jigsaw that puts "the environmental pieces together"; Forests for People, showing how water and trees are used by people; a Proud of My Parrot photo-display for each special parrot; and images showing how it is possible to live in harmony with wildlife.

A clear winner of this award, the parrot buses project pulls together all the threads necessary for good conservation. Each has gained the goodwill of the people, thereby helping to support the interlinked conservation programmes on the ground, protecting the endangered parrots and the environment which sustains them.

◆ Readers interested in visiting Paradise Park should send a large sae marked 'BBC Wildlife Magazine Offer' to Paradise Park, Hayle, Cornwall TR27 4HY, for a free entry ticket (one per household) and information about the parrot projects and the World Parrot Trust.

Trust members will be aware of the series of three 'parrot buses' developed by WPT in association with Paul Butler of RARE Centre and sent to the Caribbean between 1991 and 1994. They will read in this issue of the Paraguayan Eco-bus just completed.

The rather amazing news just in, is that Paradise Park - which carried out the work on behalf of WPT and RARE - has won the BBC Wildlife Magazine 'Zoo Conservation Awards for Excellence'. London Zoo won the second and third awards, with projects to help field crickets and sand gazelles.

This recognition of Paradise Park and WPT's work will be very valuable to future projects, and to publicity for both the Park and the Trust. The winner's cheque for £1000 (presented to Mike Reynolds, Nick Reynolds and David Woolcock at the Royal Geographical Society in London by Professor David Bellamy on 23 August) will be useful, bearing in mind that Paradise Park has only a modest number of visitors each year, generating an income of perhaps only five or ten percent of that enjoyed by major parks such as Walsrode and Loro Parque.

This is, dare we say it, an achievement for the little guy, and also for the members of the World Parrot Trust whose donations and memberships provided much of the funding for the parrot buses.

Our thanks to you all.



David Bellamy, the Paradise Park team, and the trophy.

BUILDING THE 'HOUSE OF MACAWS'

Creating a World Parrot Trust Eco-bus at long distance

By David Woolcock (WPT Trustee, & Curator, Paradise Park).

The story of the 'House of Macaws' (or 'Gua'a Raity' in the Guarani language) began some two and a half years ago when Her Majesty's Ambassador to Paraguay, Mr Michael Dibben and his mother visited Paradise Park, home of the World Parrot Trust. Whilst there Mr Dibben was intrigued by a display highlighting the work of the Ecobuses in the Caribbean and he immediately saw the potential for such a vehicle in Paraguay. Discussions followed between the Ambassador and Mike Reynolds (Hon. Dir. WPT & Dir. PP), and with funding assured from the Foreign and Commonwealth Office the idea of a "Bus for Paraguay" was well and truly on the road.

There were two major differences between the Paraguayan Bus and its Caribbean counterparts - the language for all the interpretive text was to be Spanish, with a hint of Guarani for good measure, and the whole thing was to be fitted out in Paraguay instead of Cornwall.

In Asuncion, Isaias Vergara, Aid Officer, was given the task of finding the right vehicle for the job in hand. After a lot of hard work he found and purchased the ideal vehicle: a Mercedes 1113 which was in excellent condition and well suited to the Paraguayan roads. Work then began in Paraguay to remove the windows from the bus, replacing them with sheet metal, and stripping the interior of all its seats and fittings.

As the project progressed it soon became apparent that equipping a bus which was several thousand miles away, was more

difficult than first imagined. In previous buses, any queries, for example, regarding door widths, floor construction, position of chassis members or engine components, could simply be answered by taking a look; but with the bus so far away it just was not that easy. We were now two months behind our schedule. As time went on and with more and more questions needing answers, we decided to send a member of the Cornish team to Paraguay. So it was that in early March 1995, Nick Reynolds, with the invaluable help of British Airways Assisting Conservation, made the trip to Paraguay to get the answers we needed. Four days later, exhausted and with a notebook full of measurements, Nick returned - with all our questions answered we could proceed both with confidence and speed.

By now, Easter was almost upon us - the start of our busiest time at Paradise Park, both with visitor numbers increasing and with the birds breeding, it was becoming more and more difficult to devote time to the bus. Thankfully, most of the major work was in hand and all that we really needed to do was finalise the copy details and acquire some additional photographic material for the interpretive displays, before assembling the final exhibits for the bus. Within a surprisingly short space of time, Judith Venning our trust administrator, with the help of Marilyn Bennett, the Deputy Head of Mission at the British Embassy Asuncion, had accumulated everything necessary



Painting the Ecobus in Asuncion

to enable completion of the exhibits. By mid May all the exhibits were complete and packed in ten packages of varying shapes and sizes ready for their journey to Asuncion. They flew out from Heathrow on May 27, courtesy of British Airways and shortly afterwards their safe arrival in Paraguay was confirmed.

On June 6, Nick and I flew out to Paraguay to fit the exhibits in the bus and to prepare for its official presentation on June 15, at the Queen's Birthday Party at the Ambassador's residence.

When we reached Asuncion our first priority was to check that none of the exhibits had been damaged in transit. They had all fared extremely well with only slight damage to the exterior paintwork of one or two of the packages and that was easily sorted. Not so simple to sort out however, was the fact that one of the packages had not arrived at all. It had vanished during the internal flight through Brazil. The missing package contained the PA System and most of the cable and fittings for the 240v electrical system on the bus. Whilst awaiting replacements from Cornwall, we busied ourselves unpacking the remaining packages and assembling the exhibits into the bus.

We took the opportunity to visit Asuncion Zoo to see how the aviary for the confiscated Hyacinth Macaws was progressing. We met up with Salim Giraldo, an architect and member of Fundacion Jardin Botanico y Zoologico a committee which raises funds and gives

support to the zoo. Salim showed us the site which had been cleared for the new aviary and then took us to the location where the aviary framework was being constructed. The framework was to be erected on site the day before we were due to leave Asuncion and the whole enclosure should then be completed within a month. We also discussed with Salim the display board which WPT was to provide to accompany the Hyacinth aviary and which would reinforce the educational value of the exhibit.

Our work in, on and around the bus caused a great deal of interest amongst the local people and we were often interrupted in our labours to answer questions about the bus. One interruption though, was rather unusual - on Sunday 11 June at about 3pm, Nick was working under the bus and I was working inside when suddenly a car drove past with a group of about twenty Blue fronted Amazons *Amazona aestiva* in a small wire cage on the roof rack! Rather shocked at the sight, we followed the car until it pulled into the driveway of a house less than a hundred yards from where we were working. We enlisted the help of Marilyn Bennett, who spoke excellent Spanish and set about finding out just what was going on.

A rather surprised but very nice lady, who incidentally, spoke excellent English, explained to us exactly what she was doing The Blue fronts had been taken from the wild in the Chaco region of the country and had been confiscated by the CITES authorities when they were discovered for sale at the



Loading the bus exhibits for shipment to Paraguay by British Airways.



Working model of the 'bad forest'.

Remanso bridge, the bridge which crosses the River Paraguay into the Chaco region. Once seized, the birds had been placed in the care of selected individuals who undertook to rehabilitate the birds prior to re-release back into the wild. The lady was merely moving the birds from a small aviary at her home to a larger one at her mother-in-laws, albeit in a rather unorthodox manner!

Once installation of the electrics and exhibits had been completed all we then needed to do was to collect and fit the television & video system which had been generously donated by Lloyd's Bank in Asuncion. With this in place the bus was now ready for its first outing to meet some children. The following morning, we took the "Gua'a Raity" to the English Playgroup in Asuncion, where we were met by the Ambassador and numerous members of the press. The bus was certainly a success if the children's faces were anything to go by! Without doubt the most popular exhibits within the bus were the forest models with their thrilling sounds and stunning effects - Ken Linderman, our modelmaker, had done an amazing job. Time and time again the children would return to see and hear the animals in the "Good Forest" and to appreciate the irreversible destruction occurring within the "Bad Forest". Both Nick and I were so pleased to see the bus come to life as we watched the

children follow the macaws "footsteps" and saw their excited little faces as they interacted with the exhibits and learnt from them. We captured some of the activity on film and video as we wanted everyone who had helped with this project to get some idea of the reception that all their hard work had received.

On leaving the playgroup and at the Ambassador's suggestion, we borrowed a LandRover and drove out to the Chaco - a birdwatcher's paradise. As soon as the Remanso bridge is crossed, the landscape alters dramatically into the Chaco, the extensive plain of western Paraguay. The Chaco comprises of three distinct regions, the Low, Middle and High Chaco. We only had time to explore the region known as the Low Chaco which is a verdant savanna of palms with patches of thorny scrub. It is a poorly drained area full of marshes and ponds which harbour an enormous array of birdlife. Driving along the Trans-Chaco highway, we came across countless species ranging from Black Vulture and Caracara, to Spoonbills and Ibis. On one of the estancias we spent quite some time watching Quaker Parakeets feeding and observing Giant Water Rail on the marshland. If time had allowed, we would happily have spent a lot more time in this region, but as dusk approached and we watched several pairs of Blue fronted Amazons returning to their roost,



Michael Dibben, British Ambassador to Paraguay, inside the Ecobus.



Local children on their way through the bus.

we too had to return, to the capital.

The following day was the Queen's Birthday Party at which we had hoped to launch the bus. Unfortunately, owing to a delay with the external painting, this was not possible. However, many of the people we met at the event, offered to help with various aspects of the project and with the future operation of the bus. We were especially pleased to meet "Ysanne" the renowned Paraguayan artist whose designs were chosen to decorate the exterior of the bus. With each of her designs depicting in vibrant colours a different faunal region within Paraguay, Gua'a Raity is guaranteed to turn heads wherever it goes. The day after the party we met with Felicitas from Direccin de Parques Nacionales y Vida Silvestre. Felicitas had seen how the buses had worked in the Caribbean and knew exactly how she wished to use Gua'a Raity, to the extent of having drivers lined up to take the vehicle to the people. Her enthusiasm and determination, together with that of the other members of the bus committee, will I am sure, secure the success of the bus project in Paraguay.

During our last two days in Paraguay we were able to drive to the waterfalls at Iguazú on the borders of Brazil, Argentina and Paraguay. These falls were the location for the filming of "The Mission" and to say that they are spectacular is a gross understatement. We were fortunate enough to visit both the Brazilian and Argentinian sides of the falls and the views were magnificent. In the forest on the Brazilian side we

were fortunate enough to catch sight of both Saffron Toucanets and Red breasted Toucans feeding amongst the trees; and an early morning trip, before 6am, to the Argentine side of the falls, was particularly rewarding as we were able to watch countless numbers of Toco Toucan as the sun came up, moving off to feed in the forest.

As we saw more of Paraguay, its fauna and its surrounding regions, it really brought home to us just how much diversity and sheer wealth of nature was here to cherish and preserve. We felt privileged to have been able to contribute, in some small way, to that preservation by being part of the TEAM which brought the Gua'a Raity into existence.

THE TEAM

Graham Bee, Lloyd Burchell
Rod Hall, Michael Iversen
Ken Linderman, Guido Rojas
Margaret Ryan, David Waugh

& the Staff of:

The British Embassy Asuncion
Paradise Park
The World Parrot Trust
RARE
British Airways

Additional photographic material kindly provided by;
Colin Bath - Paignton Zoological & Botanical Gardens
Marilyn Bennett - Deputy Head of Mission, Asuncion
David Jeggo - Jersey Wildlife Preservation Trust
David Lawson - Freelance Photographer
Roger Wilkinson - The North of England Zoological Society
Hoy Newspapers - Asuncion

RED TAILED BLACK COCKATOO - LATEST NEWS

By Wayne. D. Caldwell

This is the fourth report of my term of employment as Red Tailed Black Cockatoo (R.T.B.C.) Project Officer.

Population and Distribution

The population is an estimated 1000 birds ranging from sitings from Naracoorte/Bangham area in South Australia to the west of the western fringe of the Black Range in the east.

Areas where the birds are present all year round are a 50-60 Km. radius of Edenhope, Victoria and the Bangham/Frances area in South Australia.

Food Source

The main food source is the Stringybark fruit seed which can be viable all year round, although it does seem to be preferred from early winter through to mid summer. The observations of the Stringybark in the last four seasons have shown that there is a major flowering every three to four years.

In the first year of the project, 1992, the Stringybark had a large flowering which coincided with an above average nesting the following spring/summer. This season, 1995, was a similar season, so lets hope we can look forward to another good breeding season in the coming spring/summer.

Public Relations

I have done numerous press releases over the four years with newspapers, radio and television, which has given the R.T.B.C. a high profile. The press releases have emphasised the importance of the retention of habitat for the long term viability of the species. This has also helped build the large network of observers who have given valuable information. These observers are also of assistance in deterring the smuggling of any birds. I also feel this exercise was made a lot easier by the fact that I am a local farmer in the area.

The project has also given grants to landholders to protect habitat. Fencing has been given to exclude livestock from Stringybark and Buloke areas, and for regeneration of these species. Fencing grants were on the proviso that no further dead hollow bearing trees be removed from their properties.

Breeding

The four seasons during which I have been involved have seen very

inconsistent nestings. I feel a pattern might be evolving which is that breeding in large numbers seems to coincide with a heavy fruiting of the Stringybark. There are three main nest areas which are adjacent to large crown blocks of predominately Stringybark Forest.

In the four years of observation we have gone from 23 to 56 nest trees recorded. The only one live tree recorded was a yellow gum with the nest in a dead spout. The remainder of nests were in dead redgums.

We have also placed artificial nest sites in the two main nest areas. In 1992, 4 nest boxes, being existing hollows removed from dead redgums that were not hollow bearing.

In 1993, one of these fledged a young. Also in 1993, we placed six electricity poles with hollows attached in one area. The following year 2 of these fledged young.

The main reason for the large amount of artificial nest sites was the poor condition of natural hollow bearing trees. One of the biggest dangers facing nest sites is that dead hollow trees have only a life span of another 10-20 years, less in some cases. We hope that these artificial sites will fill a gap that may occur.

My personal comments on the breeding of the R.T.B.C. over the last four seasons has been that although the breeding numbers seem low, the total population has been consistent, if not a small increase. I feel we must remember that the species might be breeding to its food's availability.

I would also comment that if the population is 1000 birds and the average life span is 50 years, you only need 20 young a year to maintain this population.

Recommendations

1) The continuation of good public relations between the government and private landowners. Personally, I believe communication will always achieve a better and more harmonious result than forced regulation, and this has been one of the big plus's in this project.

Public awareness of our open woodlands and their role in native habitat is vital. The majority of our open woodland is farmland. I feel it is important that farmers understand the value of their remaining native habitat.

2) Public land being mainly forests, I feel block burning must cease and only strip burning or edge burning continue. Large block burning especially in springtime is a disaster to native wildlife. A personal comment by an apiarist stated Stringybark areas burnt frequently greatly reduces their fruiting ability.

3) Incentive and effort must be put into regeneration of Buloke areas as this is an important food source of the R.T.B.C. These areas are found mainly in cropping arable country due to the soil type. As we have seen over time, cropping farmers dislike trees. A lot of Buloques left are in poor health and at the end of their lifespan.

4) The Conservation and Natural Resources Department must have a public awareness program on wildlife smuggling. The emphasis must be placed on the sordid people that are involved so as to deter the 'local' from even thinking about making money from this, because of the position they would be placing themselves in.

Conclusion

The R.T.B.C. has a very high profile in the area and the public are right behind the future of this bird. The main nest areas are under very good tenancies and artificial nest sites are in place and being used. Retention of areas of regeneration has been achieved and hoped to be ongoing. A large amount of data has been compiled on the breeding requirements of this bird. I feel the role of this position has been successfully completed.

I would personally like to thank the co-ordinators of this project. Their foresight in placing a local farmer with a good profile in the area as the R.T.B.C. officer has worked very well.

EUROPARROT '95

The dutch society of keepers and breeders of parrots, PAKARA, is organising Europarrot'95 to be held at the zoo 'Ouwehands Dierenpark' at Rhenen, Holland on 14 and 15 October 1995. All WPT members and others are welcome, and they should write for details to: Secretary PAKARA, J. Reijmerink, Marsmanhove 31, 2726 DA Zoetermeer, The Netherlands.

AVRIL DOES IT AGAIN!

One of our most devoted and ingenious members is Avril Barton of Leeds, UK. She has thought up several good ideas for helping the Trust, but her latest is so impressive we thought everyone should know about it. She just wrote to say:- 'Please tell Mike he may get his million - ref. his article in the May '95 PsittaScene. From this week I am putting £1 on the National Lottery for the Trust every week: the numbers are 1,3,16,22,23,42. All winnings if any



Dudley busy selecting his numbers for the National Lottery.

are yours. Check the numbers each week, and I won't break my word to the Trust, even if it's the Big One'.

It seems the numbers were selected by Avril's African Grey 'Dudley', and he has already won £10 for his fellow parrots! The best thing about this idea is that anyone can do it, provided they live in the UK - how about taking up Avril's idea and writing to give us the WPT numbers and the number of weeks you're donating to the World Parrot Trust? Since there are similar major lotteries in most countries now, our members worldwide could also help in this way.

SLIGHT CHANGES TO PSITTASCENE

You will probably notice that this issue of our newsletter has a restyled heading and is printed on a more glossy paper. This is to try to make the most of the wonderful colours of the birds we often illustrate. Some of our shots in recent issues on a matt type of paper have been disappointing.

We have also cut down the number of pages from 20 to 16. This is because 16 pages come naturally out of a single sheet of print, whereas an extra 4 pages adds a lot of complication and expense. We will save £1000 per issue by doing this - that's an extra £4000 available each year to go to our actual work for the parrots.

The cost of printing 3000 16-page copies of PsittaScene is £2500 every three months. Mailing them out costs another £700. That's £12800 each year. Any offers for sponsorship will be very welcome indeed. Perhaps there's a printer out there who would like to help?

DO YOU LIVE IN AFRICA, AUSTRALIA, GERMANY, JAPAN OR SWITZERLAND?

If so, you may want to become involved in helping establish new branches of the World Parrot Trust which WPT-UK is currently discussing with interested members in those countries. Our experience over the past six years has shown that it often doesn't work if we try to initiate the creation of a new branch in a country where the Trust is not represented. We need to wait until a spontaneous offer comes in from somebody who has the desire, time and capability to do something to help the Trust pursue its objectives for the parrots and their habitats.

This has happened in the case of all the countries listed above, so we are cautiously exploring the possibilities; part of this is to try to find others who may be able to help the process along. If this could be you, please write and let me know, and I'll put you in touch with the person or group in your country. Thanks. Mike Reynolds.

INSERTS IN THIS ISSUE

In this issue of PsittaScene you should find two colourful A4 sheets. One is a mail order form, which can be used internationally to order items from our UK headquarters. Christmas is not far away, and we are often asked for suitable gift suggestions for parrot-minded friends and relations.

We have also enclosed a copy of a new poster, designed to help win new members and funding for the

Trust in a variety of situations. Pet stores would be good locations, as would avian vets' offices, bird club meeting places etc.

We have three versions. One has our UK address, another carries the USA and Canadian World Parrot Trust contact addresses. We also have some with the bottom panel left blank, so we can overprint other addresses. We have already supplied a translated version to our French branch.

This poster uses a charming

photograph generously donated to us by Bonnie Jay. Apart from being charming however, we think this poster carries a serious message, that is, if you love your companion and aviary parrots, spare a thought for the parrots in the wild and those in captivity which are not being given the care they need and deserve.

If any reader can place this poster where it will spread our message, we will appreciate it greatly. If anyone can suggest other suitable areas of distribution, or can use a few more copies, please let us know.



WPT GOES WWW

We have some very computer literate people in the World Parrot Trust, and this has enabled us to get WPT Home Pages established. Any computer user with the necessary WWW facilities can find out all about WPT by contacting either of the following two addresses:-

'Welcome to the World Parrot Trust USA'

<http://www.mecca.org/~rporter/parrots/wptintex.html>

'The Canadian World Parrot Trust'

<http://wchat.on.ca/parrot/cwparrot.htm>

Individual e-mail addresses where WPT can be contacted are:-

Richard Porter (USA)

72703,3336@compuserve.com

Cynthia Webb (Administrator WPT-USA)

cwebb@wspl.wspice.com

Michael C. Pearson (Canada)

cwparrot@wchat.on.ca

Michael Reynolds (UK Office)

100437,2253@compuserve.com





INTERNATIONAL NEWS ROUND-UP



UNITED STATES

Tony Silva Responds

I recently read with interest the article in *PsittaScene* on the indictments against my mother and myself. Up until now, I have given only one interview on the charges, but the recent article in *PsittaScene* has made me take pen to paper.

If one reviews the reports made by James Mackman, who set us up for Fish and Wildlife, it becomes evident that he fancied fiction novels. To give readers an idea, I shall cite a few of the claims. I supposedly had someone 'bumped-off', presumably because he/she was investigating me. In crimes there must be a victim but here there is no victim — it was a lie. Mackman visited Loro Parque at his initiative. In the report of the visit, it is said that I forced him to swim with the dolphins on his arrival, so that someone could go through his clothing. He also claims that I had my cleaning lady go through his suitcase daily to remove rolls of film he was taking, supposedly of secretly kept birds. Mackman claims I participated in the sale of arms to counter-revolutionaries.

Allow me to address these accusations. Loro Parque's dolphinarium closes at 6.30pm and Mackman did not arrive at the park until 10.00pm, thus making a 'forced swim' impossible. He swam with the dolphins — but at his own request and many days after his arrival. No one ever went through his clothing or suitcase, and had that been the case, he could have moved to a hotel or locked the room he was staying in with a key.

All of the park's birds are listed on an inventory, have been seen by countless visitors, and are feature in the guidebook and video. There were never any secret birds. My family left Cuba because of Communism, thus I would certainly not negotiate the sale of arms to people whose views are similar to Castro's!

Mackman reports that I was hired by Loro Parque to become a partner in a broad smuggling ring with Wolfgang Kiessling and Antonio de Dios. Both of these men are of great standing and have earned all of my respect. His charge is another lie; I was hired by the park for my knowledge of birds. Mackman cites the names of

many aviculturists, some quite prominent, who are 'smugglers'. He attributes the comments to me, but in fact it is he that makes the comments.

The Canary Islands are described as a 'smuggler's mecca', presumably to try and justify the charge that I sent thousands of illegal birds from there to the US. These islands are not a haven for smuggled birds, and indeed Tenerife (where I lived) has an environmental police force which I trained! I never sent any smuggled birds from any of the islands.

The story then changed that the birds were smuggled through Mexico and across the Rio Grande into the US. Would Fish and Wildlife, which is active in the area, not have confiscated at least one of the bird species which they claim I smuggled? Would someone not have seen the crates of birds in a Texan or southern Californian airport? The birds were, it is claimed, destined for my mother. No one can step forth and claim that they bought a bird from her, because she has a long medical history of allergies to birds. She has also never sold a bird.

Supposedly some of the birds purchased were identified as smuggled from a photograph; not only that, but their age and weight is also described from the photograph. This, as serious aviculturists know, is impossible. The sad part is that the report giving such information is by a prominent American ornithologist who has long been studying macaws.

Two individuals which claimed to have purchased or have seen smuggled birds have dubious backgrounds. One is in jail for murder and drug trafficking and the other, a veterinarian, was arrested at one point with illegal drugs in his possession. What credibility can these people have?

In an attempt to suggest that some of my birds were illegal, Yellow-faced Amazons were confused for Yellow-shouldered Amazons, an endangered species, and three being smuggled in 1990. Fortunately during the seizure, the agents overlooked documents proving that I had these birds long before then. There are also witnesses ready to testify so.

In summary, all that I ask is that judgement be refrained from until the matter appears in front of

a court of law. It should be noted that in the US it is very easy to indict someone — my lawyer always uses the example that even the Pope could be indicted tomorrow. Fortunately, one is still innocent until proven guilty.

Why has this problem arisen? I believe that Fish and Wildlife had to justify its existence and that they are trying to stop aviculture. By creating a smoke cloud around prominent aviculturists, they attack the very heart of bird breeding, for after all, if they destroy the most prominent breeders, they can destroy aviculture. Their actions over many years suggest that they are no friends of the bird breeder.

CANADA

Catherine Soos, a second-year veterinary student from the University of Guelph, is over half way through her tenure with Dr. Charles Munn in Bolivia. In company with Laurel Neufeld, a biology undergraduate at the University of Manitoba, she has been studying the behaviour of red-and-green macaws in Caquiahuana, Bolivia. They are both working with EcoBolivia, a non-governmental organization that is strongly and actively involved in the conservation of land, plant life and wildlife in the Bolivian rainforests. At present, with minimal funding, EcoBolivia is actively protecting a large region surrounding and including

Caquiahuana from chainsaw cutters, poachers, hunters, gold miners, etc. This region is one of the most vulnerable areas of the proposed National Park, particularly because of the large population of red-and-green macaws that live there. Over the years, the population of *Ara chloroptera* in Caquiahuana has significantly declined and therefore the need to protect it is urgent.

A small hike away from the research station that they have been calling home is a 60-90 m high sandstone cliff. The top of this cliff is lush with various trees, plants, fungi, and so on, while the cliff face is dotted with differently sized cavities. Within these holes, *Ara chloroptera* build nests during the nesting season (soon). Prior to nesting season, the cavities are used as roosting sites. This is actually the first report of macaws using cliff cavities for nesting roosting sites. At the moment, 10 pairs consistently use these holes, and may take off to feed or socialize, but always return to their respective holes by the time darkness sets in. They have counted over 32 red-and-green macaws, so there are more pairs than potential cliff sites in this area. During the past month they have studied the competition for these sites, and the use of the cliff holes.

We will provide a further report on this study when Catherine returns to Canada.



Catherine Soos teaching Bolivian children about parrot behaviour. The telescope is focused on a pair of Green-winged Macaws, sitting within their cavity, so the children can take turns watching them.

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 Dr. Charles Munn and his Brazilian colleagues. Further field work is now under way, and our HYACINTH FUND needs help.

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 30 remaining.



Red-tailed Amazon *Amazona brasiliensis*

Only 1,000 birds remain and many chicks are taken from nests for the pet trade. We are working with the Brazilian biologists, Dresden Zoo and ZGAP to protect them.

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, Glamor 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 Fassiere, 45140 Ingre, France.

DENMARK
M Iversen, Alsikemarken 48 2860 Soborg, 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\$

Name.....

Address.....

.....Zip/Postcode

Please charge my Access/Visa Acc/No.

□□□□□□□□□□□□□□□□

Exp. dateAmount £/US\$

Signature.....

OR: I enclose cheque payable to the WPT.

I heard about the World Parrot Trust from

PARROTS IN THE WILD



ECHO PARAKEET (*Psittacula echo*)

Readers of *PsittaScene* will be aware that The World Parrot Trust has been contributing towards the conservation of this species for five years. We began by supplying a four-wheel-drive vehicle (with help from The Parrot Society) and have continued to supply annual funds to the Mauritius Wildlife Fund to be used by Carl Jones' team.

The latest report shows that there are now around 30 birds in the wild and eight in captivity. This is three times the number thought to exist when we first became involved in 1990. New Zealand biologist Tim Lovegrove has played a key role in the last two years and his report states: 'Overall, 1994-95 was the most productive season for the Echos since the mid-1970's with five young recruited into the wild and four in captivity. Five wild adult Echos were caught, measured and banded and blood samples were taken for testing for Psittacine Polyoma virus, Psittacine beak and feather disease and DNA studies. The tests for Polyoma virus and PBFV were negative. Conservation management of the wild birds included population surveys, intensive monitoring of nests, daily checks of the growth of the young, poisoning and trapping of rats around nests, supplemental feeding and observations of roosting and feeding ecology.'

The work programme for 1995-96 is daunting and a new team (Mike Thorsen and Rachel Shorten) is about to start work. The World Parrot Trust would like to increase its funding if at all possible, so perhaps some of our supporters would consider making special donations to help continue the programme to save the world's rarest parrot. MR

We intend to continue this series of 'Parrots in the Wild', and would welcome suitable photographs from readers.