



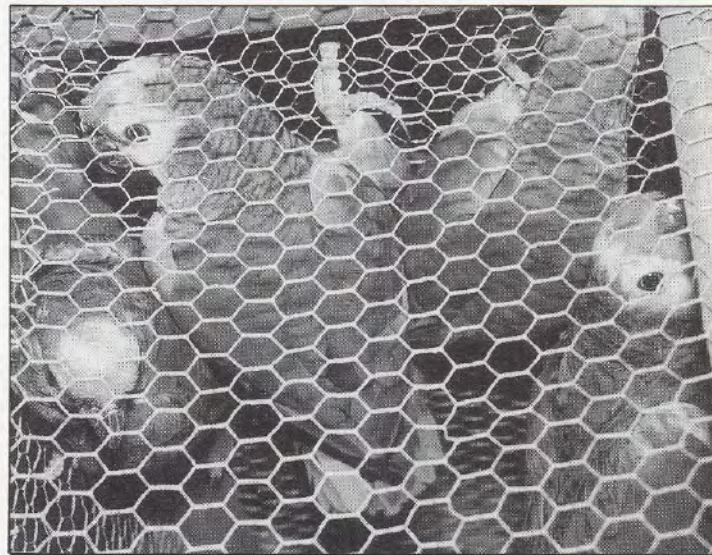
## The Desperate Plight of the World's Parrots

By Guy Mountfort, OBE, Vice President, World Wide Fund for Nature (UK)

To anyone like myself, who has seen parrots in the wilds of four continents, the sight of one confined to a cage in which it can barely spread its wings, let alone fly, is a monstrous injustice. In their natural environment they are extremely active birds. Most of them are gregarious, flying in noisy groups and roosting socially together. They obviously need and enjoy each other's company. To watch them playing tag, or enjoying acrobatics, such as swinging upside-down from one leg, is an entrancing experience.

Unfortunately, this activity and their marked ability to learn and to experiment, combined with their unusually brilliant colouration, has made them irresistibly attractive to the cage-bird trade. And this world-wide trade is now worth many millions of pounds. But the general public has little idea of the appalling cruelty involved in this trade, or of its tragic consequences to the survival of the wild population.

Because of their highly social behaviour and natural curiosity, parrots are easily captured. The process usually begins with a single bird caught by bird-lime spread on the branch of a fruit-laden tree. Its wing feathers are quickly pulled out or cut off and it is tethered by one leg to a stake in the ground beneath the tree. Its struggles and cries soon attract its companions, which are caught in a clap-net. The trapper bundles them into a sack, in which they are confined for several days while he makes his way to the



Untold numbers of parrots are transported around the world every year in cramped conditions like this.

nearest trader. Some of them die by suffocation during the journey. The trader transfers the survivors to an already over-crowded wicker cage until he can go to the nearest town or airfield. By then many more will have died. The exporter now makes out the necessary freight documents, taking care to disguise any officially protected species under a different name, safe in the knowledge that the Customs officials, who have probably been bribed, will not know the difference anyway. If the rare species happens to be easily identifiable, a larger bribe will be involved. Cage-crates, packed with perhaps a thousand birds of various species, are then loaded into an aircraft to begin their long journey to the United States, Europe or Japan. Many and sometimes all the birds will die before arrival, but the high prices paid by the importer for those which survive easily make good any losses. A single ultra-rare species such as a Spix's Macaw is known to have been sold for \$20,000.

In Colombia I once interviewed a wealthy German exporter who had just arranged to fly 16,000 wild-caught birds, all from the Brazilian rain-forests, to Florida. I drew his attention to the many dead birds on the floors of the cage-crates.

"This is inevitable," he said, "And most of the others will be dead within a few months because the buyers won't know how to look after them. But so long as they are willing to pay for them it's none of my business to complain." I have had similar encounters with traders in Singapore, India and Senegal. Money is the main consideration, even though wide publicity has been given to the fact that 80% of wild-caught birds die between capture and final delivery.

Today, despite the ratification by more than a hundred countries of the Convention on International Trade in Endangered Species and despite all the efforts of the conservation organisations, such as the International Council for Bird Preservation, the

World Parrot Trust and the World-Wide Fund for Nature, about 600,000 wild-caught parrots are sold world-wide by dealers every year. Of these, more than 200,000 are sold in the EEC countries. Several species, including the beautiful Spix's Macaw, are known to be now extinct and 77 more are regarded as nearing extinction. Never before has a single, once very numerous family of birds suffered such appalling persecution.

It should be remembered that apart from the losses caused by the cage-bird trade, all of the many bird species which inhabit tropical regions are gravely threatened by the continuing destruction of their forest habitat. Throughout Asia, Africa and Central and South America tropical forests are being felled or burned at a rate of 28 hectares every minute. Brazil, the home of a large number of parrot species, has already lost 97% of its once rich coastal forests. Without these forests the local parrots and most of the other forest species are clearly doomed.

Three things are urgently needed if the parrot family is to survive. First, the general public must bring pressure to bear on governments to stop the destruction of tropical forests. Second, to stop the smuggling of endangered species by strengthening the ability of Customs officials to recognise them and to prosecute their shippers with the utmost severity. Third, to induce bird fanciers and the general public to buy only those parrots which have been legally bred in captivity by reputable suppliers. The sale of wild-caught birds should be totally banned by international law. If such steps are not taken in the very near future, the world is going to lose its parrots for ever.

(See Editor's footnote on following page)

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





## Editor's Footnote:

The author's reference to extinct parrot species should, perhaps, be clarified. First, the Spix's Macaw is probably not yet extinct in the wild. In 1989 wild-caught young were unfortunately again offered for sale, indicating that a second population survives in an unknown locality. Also, of course, there are a few specimens, not exceeding 20, in captivity. Four species have unquestionably become extinct during the past 150 years and one other, possibly two others, have joined them. The Carolina Conure or Parakeet (*Conuropsis* (actually an *Aratinga*) *carolinensis*) was shot and trapped out of existence in North America, the last one dying in the early years of this century, the beautiful Cuban Macaw (*Ara tricolor*) probably survived until the mid 1880s and two

*Cyanoramphus* parakeets, endemic to small islands in the south Pacific, have been extinct since the beginning of the nineteenth century. They were *Cyanoramphus zealandicus* from Tahiti and the Society Islands and *Cyanoramphus ulietanus* from Raiatea, one of the Society Islands. In South America, the Glaucous Macaw is widely assumed to be extinct but there is good reason to believe it does still survive. In Australia, the Paradise Parakeet (*Psephotus pulcherrimus*) is also probably extinct, but probably much more recently than the 1930s, the usual date given for its extinction.

Another parrot which became extinct during the past 150 years is the *Psittacula* from the Seychelles, *P. eupatria wardi* — but this was classified as a sub-species. It was gone

by the beginning of the twentieth century due to deforestation and persecution because it raided maize crops. However, one full species from the Indian Ocean area became extinct in 1834 when a captive bird died in the collection of the King of Bavaria. This was the Mascarene Parrot (*Mascarinus mascarinus*).

Other "extinct" parrots are known only from bones (three species) or from descriptions (twelve), often extremely vague, of travellers. The only convincing account is that of the Amazon from Guadeloupe in the Caribbean, *A. violacea*. Thus the total of extinct parrots which unquestionably existed, is five.

To refer back to the article, 77 species "nearing extinction" is not quite correct. This number has been listed recently by ICBP as being highly vulnerable but most of them are on Appendix 11 of CITES. This, of course, is no cause for complacency — but a warning. They certainly could be nearing extinction within a few decades — in the wild, that is (most are well represented in captivity) — if their habitat is not protected. As far as is known, only three parrots face imminent extinction — the Echo Parakeet, the Kakapo and the Imperial Parrot. (This is my own assessment — and is open to discussion. Some would also include the Puerto Rican Parrot, which now has a secure captive population).

Editor

**Note:** Contributors to *PsittaScene* No. 1 (Oct. '89) were inadequately described.

**A.A.J. Stoodley**, one of the world's most successful and innovative aviculturists, is the author (together with his wife Pat) of 'Parrot Production' and 'Pionus Parrots'. Their book on Amazon Parrots is due shortly.

**Rosemary Low** is our editor and author of many books on parrots including 'Endangered Parrots'. Her new book on macaws is in preparation.

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The World Parrot Trust does not necessarily endorse any views or statements made by contributors to *PsittaScene*.

It will of course consider articles or letters from any contributor on their merits.



Rosemary Low with young Hawk-headed Parrots.



# TRUST TAKES FLIGHT

Michael Reynolds Hon. Director

For all practical purposes, the World Parrot Trust was launched in the United Kingdom on October 15th 1989. On this date a four page article appeared in the Mail on Sunday YOU Magazine, describing the arrival of the trust and its objectives. Since the readership of YOU Magazine is around 5 million of the more thoughtful and concerned members of the population, it is difficult to imagine a better springboard for the trust. It is not surprising, therefore, that a flood of correspondence followed, resulting in over 500 memberships for this new and untried charity.

Other media coverage was also achieved, especially on television. We were invited to appear on 'Blue Peter', the BBC's long established and very prestigious children's programme, which also has a substantial adult audience. We had about seven minutes to get across the plight of the parrots, make the important point about not buying wild-caught parrots as pets, and were also able to show a huge and impressionable audience some endangered parrot species. These were St. Vincent Amazon, Cuban Amazon, Queen of Bavaria's Conure, and Buffon's Macaw, all brought to the studio for the day from Paradise Park in Cornwall. You may like to be assured that the individual birds were selected for their calm temperaments, and all returned safe and well to their aviaries in Cornwall.

The trust also appeared on 'Prime Time', a new BBC TV programme for older viewers, and on TV-AM's 'Anne Diamond on Sunday' show. More recently, BBC TV Southwest filmed an excellent item featuring David Woolcock, one of our trustees and also curator of Paradise Park. Considerable coverage was received in national and local newspapers. Together with publicity resulting from ICBP's launch of their 'World Parrots in Crisis' campaign, and television reporting of Jersey Wildlife Preservation Trust's returning of two Jersey-bred St. Lucia parrots to St. Lucia, it must be the case that public awareness of parrots — and their problematical future — has been dramatically heightened.

Of necessity, international knowledge of the trust's arrival will take time to establish. Copies of the first issue of PsittaScene have been mailed to 350 zoos and to over 150

key 'parrot people' worldwide. A number of these zoos have joined the trust and several have offered to help in fund-raising. Individuals and groups from Scandinavia and the USA have made contact and offered help in establishing the trust in their countries.

What is encouraging is the virtually universal welcome for the trust and the acceptance that a specialised charity to help the parrots is long overdue. The majority of the hundreds of letters received so far presents a picture of individuals or families to whom their pet parrot is the centre of the household. It is pleasing to find that if someone cares for one parrot, they are likely to care about all the parrots.

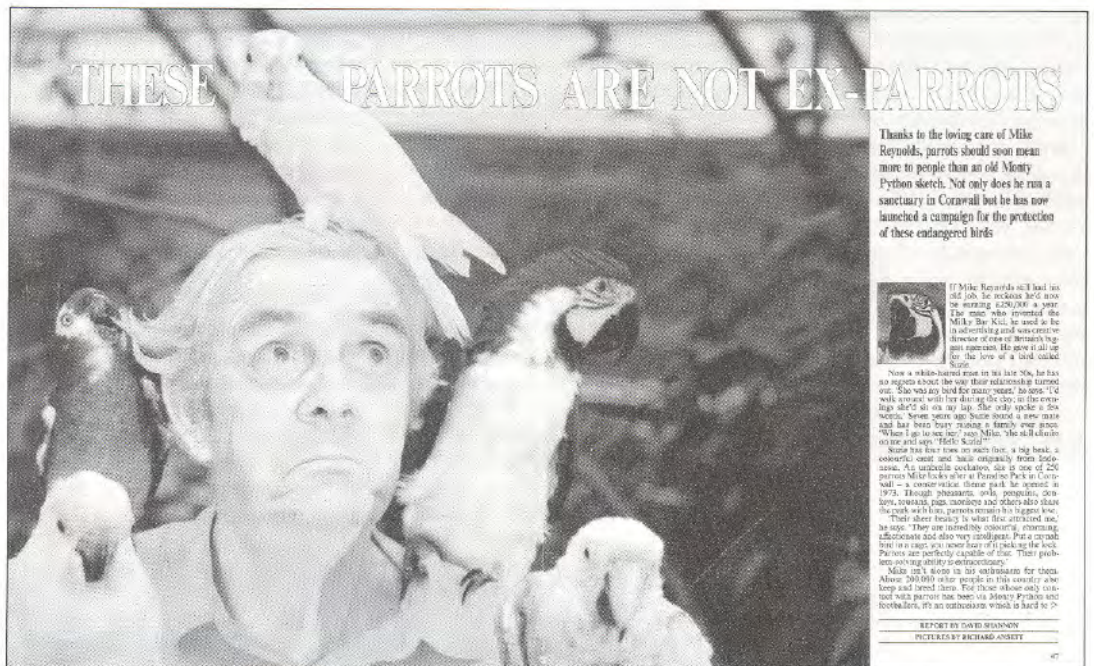
encourage more effective co-operation between holders of A1 species and with relevant conservation bodies.

Nevertheless, since the trust is based at Paradise Park, Cornwall, U.K., where considerable parrot breeding expertise is available, together with a suitable site, any serious proposal about sponsoring a breeding facility could be speedily turned into reality. Potential sponsors, please get in touch.

There has been quite a strong reaction to my proposal in PsittaScene No. 1 that shipments of parrots should be limited to ten individuals, so as to prevent shipments of literally thousands of parrots at one time. As one might expect, this suggestion has not been popular with importers, but surprisingly it turns out that many UK importers would be satisfied with a limit of fifty birds per shipment. Further views on this critical matter would be welcome from all interested parties. What is certain is that the writing is on the wall for the mass shipment of wild-caught parrots for the pet trade; with increased public knowledge and concern it is only a matter of time before anyone contemplating buying a pet parrot will know that what they want is an aviary-

discussion centred on the need to prevent a flood of imported, wild-caught birds but sustain a modest flow for legitimate avicultural purposes. We sought their advice on projects relating to aviculture and the welfare of individual birds, and came away with some valuable ideas. We discussed how the trust's income available for projects might be allocated, and ended up with the thought that conservation should have 40%, aviculture 40% and welfare 20%. Further discussion among the trustees, however, shows a preference for 60% for conservation, 20% for aviculture, and 20% for welfare. The thinking behind this is that aviculture is an interest with a positive financial element and can largely look after itself, while the status of many species of parrots in the wild is desperate. Once again, we would like to hear from our members and others on this important matter. Better still, help us raise the funds needed to make some significant impact on all of these problems.

I would like to close this report by re-stating that the World Parrot Trust needs the support of everyone interested in the fate of the parrots — undoubtedly the world's most charismatic birds, and no doubt that is



Double page spread from 'YOU' Magazine.

Many parrot aviculturists have joined and made proposals about possible activities of the trust. It has been suggested that the trust should aim to set up its own parrot breeding facility, consisting primarily but not exclusively of endangered species. Such an activity has been planned to play a part at a later stage in the trust's development, but the present feeling of the trustees is that parrot aviculture is well served by the work of individuals and institutions worldwide, and the trust's main contribution should be to

breed, hand-reared bird. What the World Parrot Trust seeks is the avoidance of a blanket ban on imports which would inhibit the development of captive breeding of endangered species (hopefully for eventual reintroduction programmes) and the provision of non-endangered species for pet and companion birds.

The trust had an interesting and useful meeting with the Avicultural Society and the Parrot Society — two long established and influential British avicultural associations. Much

the root cause of their difficulties. If parrots were as boring and unattractive as seagulls (that should draw a few letters from seagull fans), they would not be the most endangered Order of birds in the world. We seek long-term practical support from all across the parrot spectrum, from the devoted pet owner to the conservation field worker, from the educationist to the aviculturist, from the civil servant to the scientific observer. Passionate or dispassionate, we wish to provide an intelligent and effective channel for your concern.



# MACAW BREEDER EXTRAORDINAIRE

## a model to follow

by Rosemary Low

Question: If you entered a 100ft (30m) long aviary and 30 or so young macaws - including Hyacinthines, Buffon's and Blue-throated - took it in turns to land on your hand, arms and shoulders, where would you be?

Answer: In Yorkshire, of course, in the aviaries of Harry Sissen. Who else builds flights of this length for young birds, and similar but separate flights for adult parrots out of the breeding season? Who else, with his wife, enjoys outstanding success in rearing macaws and in 1989 bred other parrots as diverse as Palm Cockatoos and Lesser Vasa Parrots, Blue-throated Conures (*Pyrhura cruentata*), Hawk-heads and Queen of Bavaria's or Golden Conure?

In October I visited the UK for the launch of the World Parrot Trust and took the opportunity to travel from Hayle in Cornwall up to Yorkshire. What I saw there is etched on my memory as the model for all breeders of large parrots to copy. It was four years since I had visited Harry and Pat Sissen. I was impressed then; now I am filled with even greater admiration for their achievements.

The modern trend among parrot keepers towards giving their birds a "battery hen" existence is something which is very worrying. This is surely not the way to produce excellent specimens over many generations which resemble as nearly as possible their wild ancestors. Many people who keep parrots in these conditions have never seen them fly. When a parrot escapes from its cage or aviary, the initial reaction for most people, along with anxiety, is "Doesn't it look magnificent in flight?"

But that is something which they should be able to observe on a daily basis, at least out of the breeding season. I believe that the Sissens' set up will inspire a new trend among thinking aviculturists. It could never become the norm because, alas, most people do not have access to sufficient land — but for those who do, and for others who are interested, let me describe how it is done.

At present Harry Sissen has three aviaries which measure more than 100ft (30m) long and a minimum of 30ft (9m) wide. On two sides are small aviaries approximately 10ft (3m) long and 5ft (1.5m) wide. During the breeding season, usually for about six months of the year, the pairs occupy the small enclosures. During the winter many pairs fly together in the large flight. As there are a number of pairs of the same species, they have the opportunity to form new pair bonds, should they wish to do so.

Last winter, for example, there were four pairs of Green-winged Macaws (*Ara chloroptera*) flying together. As Harry initially gave priority to the more endangered species, these pairs had not been set up very long. Only one couple remained paired; the others changed partners. These included a male who was afraid of the female he lived with. Now that he has a female of his choice, he is a happy bird, showing no signs of stress.

Flying many adult *Ara* macaws together in winter has been very successful. Harry no longer does this with the Hyacinthines (*Anodorhynchus hyacinthinus*) as he has found that one pair will try to dominate the others. As a result, his plans for future winter aviaries are a little different. He will construct enclosures 60ft (18m) long, 15ft (4.5m) wide and 10ft (3m) high.

Each will contain one pair of several different species, cockatoos and macaws for example, because pairs will try to exert dominance only over the same or closely related species.

There are several important advantages to the system of using large winter flights. Many captive macaws of the large species are infertile because they are unfit and overweight. Fertility increases when they can fly daily for several months. Harry keeps 36 pairs of macaws and nearly all those which are mature enough have bred. Incompatibility is one of the major problems in breeding large macaws, thus any method which allows them to choose their own partners is certain to lead to increased breeding success.

Harry's aviaries have earth floors which are not generally recommended because disease is difficult to eliminate and moulds can flourish in damp weather. However, when the birds vacate the aviaries for the winter, the floors are thoroughly cleaned and because they remain empty for so long, any bacteria or worm eggs, for example, will be killed by the winter frosts. In the large aviaries there is no chance of uneaten food remaining on the floor and going mouldy because there are rabbits to eat it up! Harry keeps one Kea (*Nestor notabilis*) which is awaiting a mate. In its native New Zealand Keas have a bad and unjustified reputation for attacking live sheep so I asked Harry if his had eaten any rabbits! No, he said, but cockatoos will eat any dead rabbits that they find.

There are many opinions on the subject of feeding parrots, some of which are based on convenience for the owner rather than the needs and preferences of the birds. This is not the case here. Harry's feeding is based on items that the birds like that also produce good breeding results. The basic mixture consists of a large proportion of sunflower, about 70%. Most parrots would become overweight on this but of course these burn up much energy in flight. Also in the mixture are peanuts, oats and

shredded beet or cabbage. Apple is given daily, and whole corn cobs (fresh, or cobs he has bought fresh and frozen for use throughout the year) are spiked onto nails on the perch. Nuts are bought by the sackloads; half a hundredweight (56lbs) of walnuts are fed every day, also almonds and cobnuts.

Harry keeps bees and is a firm believer in the value of his own honey. This is made into a syrup by adding water and mixed with squares of wholemeal bread. Fed thus, it is relished by many parrots.

His location is a high, cold one, with plenty of rain and mist. The large aviaries have a minimum of shelter and roof cover (unlike the breeding aviaries) — yet I have never seen macaws and cockatoos in such magnificent condition. The vibrant colours of the macaws were unforgettable, especially the Blue-throated (*Caninde*) and the Buffon's. Up until 1989 Harry was (and probably still is) the only UK breeder of the Blue-throated (*Ara glaucogularis*).

This is my favourite macaw. What a pleasure it was to be assaulted by five he reared in 1989 when I entered the indoor room where the young macaws are weaned and learn to fly! He has only one pair yet they produced five young during their third breeding season. I, too, have had the great pleasure of hand-rearing this species and to once again have Blue-throated Macaws climbing over me, tweaking my hair and trying to remove my buttons, was a joy to be long remembered.

The young ones are brought to this room as soon as they are old enough to start sampling food, but syringe-feeding is continued as long as necessary. Here they have much space to explore, fly and learn to mix with other birds. A large group must surely be easier to wean.

Harry's wife, Pat, does all the hand-rearing. On the subject of weaning she pointed out that those which are very attached to the people feeding them take the longest to wean. This is true — for they crave the attention as much as the food.

My visit was made in October so the main part of the breeding season was over. Still being hand-fed, however, were two Blue and Yellow Macaws, one Umbrella Cockatoo (*Cacatua alba*), one Military Macaw (*Ara militaris*) and three Hyacinthine Macaws from two different pairs. Harry has three producing pairs and another pair of which the female is laying. In the big outside flight I had seen three superb Hyacinthines which were being kept for breeding purposes. Harry is well known for his wisdom in not selling young of the rarer species until he has set up several more breeding pairs. This is a policy which, in the interest of the species, more



Harry Sissen with two of his youngsters — a Blue-throated and a Hyacinthine Macaw.



aviculturists should follow. The temptation to sell hand-reared young as pets at high prices is more than many breeders can resist. Fortunately, some of these young do eventually end up in breeding aviaries. If this was not the case, the future of some macaws in aviculture (especially Hyacinthines) would be bleak.

One of Harry's favourite species, also one of the hardest to breed, is the Palm Cockatoo (*Probosciger aterrimus*). That he was able to show me not one, not two, but three chicks which were

being hand-reared, is a good indication of his success as an aviculturist. The few people who have reared these stately black cockatoos have all encountered problems, usually when the chicks are feathered or feathering up — and one of Harry's youngsters had caused him much worry.

"We have a lot to learn about rearing Palms", he told me. But knowing the way Harry thinks things through and constantly experiments if he is dissatisfied with any aspect of management, I am sure he will

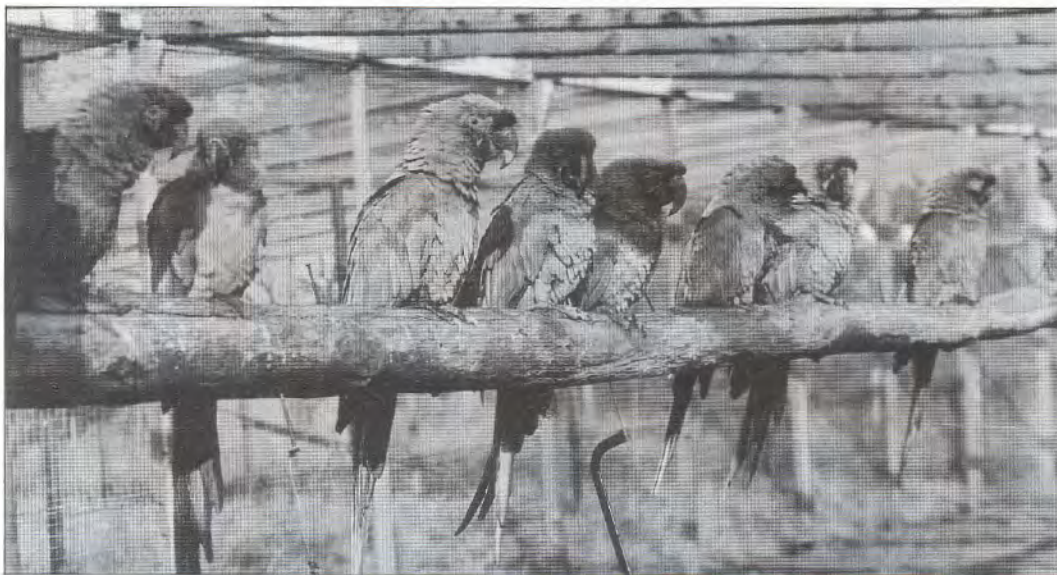
eventually find the key to even greater success with Palm Cockatoos. Wild-caught birds of this species are fortunately not ever likely to be legitimately imported again, so unless breeders like Harry and Pat Sissen can breed them, they will die out in aviculture.

It is undoubtedly dedicated specialists who achieve the greatest success in breeding rare and endangered parrots. Alas, there are many non-breeding pairs in zoos. Harry is confident that if he had some of these pairs, they would

reproduce for him. Indeed, he is willing to offer zoos who have non-productive pairs of such birds as Buffon's (*Ara ambigua*) and Hyacinthine Macaws young birds of his own breeding to place on exhibit while he takes care of the adult birds. In return, the zoo would receive young from the pair which he would almost certainly persuade to breed. What a worthwhile idea! No-one can lose and the species can benefit immensely. A major problem in the breeding of rarer birds is that in many cases there are a few very productive pairs in the hands of half a dozen breeders and countless unproductive pairs. Ultimately, the young from the few productive pairs will dominate the gene pool of the captive birds and genetic diversity is lost. Harry's offer to zoos would help to solve this problem.

It is becoming increasingly obvious that private aviculturists, zoos and field ornithologists must work together in the interests of threatened birds. Here is a wonderful offer from a leading aviculturist. Will anyone take it up?

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Flights 100ft long are used to exercise these young macaws — Buffon's, Militaries and Blue-throated.

## WHY CO-OPERATIVE BREEDING PROGRAMMES FOR RARE PARROTS ARE NEEDED

### Part One: THE PRINCIPLES INVOLVED

**Dr. PETER BENNETT,**  
**CONSERVATION CO-ORDINATOR,**  
**NATIONAL FEDERATION OF ZOOS**  
**& DAVID WOOLCOCK,**  
**CURATOR, PARADISE PARK**

#### Introduction

Parrots have long been popular as pets and exhibit animals in zoos. They are colourful, noisy, sociable birds that are in great demand as pets. The massive trade in parrots, along with habitat destruction, has brought many species to the brink of extinction. Unless urgent action is taken, we may no longer see many parrot species in the wild, including a number of the most spectacular members of this group of birds.

Captive breeding has a role to play by reinforcing conservation efforts in the wild. However, efforts must be

made now to assess what can be achieved, how to do it, and where the priorities lie. An initial step is to get keepers of threatened parrot species to co-operate and manage rare parrot populations on sound biological principles. This article explains why genetic and demographic management of captive parrot populations is important.

#### Captive Breeding

*How can zoos and aviculturists help in the conservation of endangered parrots?*

Parrots are already kept in large numbers in captivity, however, few of

the populations of these species can be regarded as self-sustaining. Keepers of threatened parrots are not good at co-operating. As a result, captive populations of threatened parrots are not managed in a way that minimizes the genetic and demographic risks to the survival of small populations, such as losses of genetic diversity and inbreeding.

It might be useful to consider how the development of self-sustaining populations in captivity can help in the effort to conserve parrots. Six points are pertinent:

- to reduce trade in wild birds through the supply of captive bred animals;
- to display parrots for educational purposes (raising public awareness about the need for parrot conservation);
- to display parrots for generating revenue to support conservation activities;

- to carry out research that aids maintenance of parrot species in the wild;
- to train keepers in captive breeding techniques;
- to maintain a viable population and provide a surplus for reintroduction of parrots to protected habitat in the countries of origin if this is thought necessary and feasible.

Zoos and aviculturists can aid parrot conservation through the development of viable self-sustaining populations using existing stock. However, in order to develop viable populations it is essential that co-ordinated captive breeding programmes are formulated on the basis of population analyses.

continued overleaf



## Population Management

*It must be emphasized that without co-ordinated breeding programmes based on population management the future maintenance of many rare parrots in captivity over the long term is in doubt. Why is population management important and how is it being used to manage populations of threatened species in zoos?*

Captive populations are usually small and sub-divided. Small populations are particularly prone to processes such as genetic drift that restrict genetic variability. Why is genetic diversity important? The potential of individuals to cope with environmental challenges such as disease is, in part, genetically determined. By planning captive breeding programmes that aim to minimize losses of genetic diversity, we improve the probability that viable populations can be maintained in captivity over many generations. We also improve the chances that captive-bred birds will be able to survive and breed once they have been reintroduced to the wild. In addition to losses of genetic diversity, small populations are also subject to random fluctuations in demographic processes such as fertility, survivorship and the sex ratio.

Co-operative breeding programmes between zoos are planned on the basis of genetic and demographic analyses in order to minimize the effects of these processes that can cause extinction. Detailed information on individual animals must be gathered prior to developing breeding programmes. Information on the location, sex, age, pedigree, and origin of animals are now recorded in inventories, studbooks and computerized animal databases.

On the basis of these information sources it is possible to examine genetic and demographic problems in captive populations. We will focus on four potential genetic problems: 1) loss of genetic diversity, 2) inbreeding, 3) hybridization, and 4) artificial selection, and then discuss demographic aspects of population management.

### 1) Loss of genetic diversity

An assessment of the genetic status of a population can be obtained by analyzing the pedigree of living animals and tracing them back to their wild-caught ancestors. Often captive populations are founded by a small number of wild-caught animals which breed and leave surviving descendants.

Some of the most extreme cases of low numbers of founders are found amongst captive populations of threatened pheasants. For example, the world captive population of White Eared Pheasant now numbers over 500 individuals. Most of these animals descend from just two pairs that bred



*Top: St. Vincent Amazon Parrot. The captive breeding of this species is the subject of an international consortium of zoos and aviculturists.*

*Cuban Amazon chicks (Palmitos Park).*

at Jersey and East Berlin zoos (Zheng-Wang, 1989). Low founder numbers result in restricted sampling of the gene-pool of wild populations. This 'bottle-neck' in the population has important genetic consequences because rare alleles present in the wild population might not be sampled.

It is also common to find that the relative genetic contribution of founders amongst living animals differs in small captive populations. For example, preliminary analyses of the British Isles Regional Studbook for the Scarlet Macaw (Woolcock, 1989) show that while many wild-caught birds are still living, only a few pairs have bred and left surviving descendants. Of these wild-caught pairs

most have bred infrequently and are poorly represented, while a large number of living wild-caught macaws have failed to leave descendants. In order to maintain genetic diversity, recommendations for movements of animals must be made that attempt to equalize founder representation. Descendants of under-represented founders must be targeted and placed in breeding situations.

### 2) Inbreeding

Inbreeding, mating between relatives, also reduces genetic diversity, and can lead to lower viability by increasing juvenile mortality and reducing fertility. Levels of inbreeding can be high in small populations that have been maintained in captivity for

many generations. By establishing co-ordinated breeding programmes based on population genetic studies, levels of inbreeding can be minimized or avoided.

A recent analysis of the breeding records of White Eared Pheasants at the Jersey Wildlife Preservation Trust has shown a strong negative correlation ( $r=0.73$ ,  $p<.01$ ,  $n=13$  pairs) between fertility and the degree of inbreeding (Zheng-Wang, 1989). This result is very important. There are very few bird species for which there are long-term breeding records and a pedigree derived from recording the life-histories of individually identifiable birds. This result has important implications because inbreeding is directly resulting in reduced fertility. It strongly suggests that in order to maintain viable populations of threatened pheasant species in captivity to provide a surplus of fit animals for reintroduction, we should be planning breeding programmes that aim to minimize or avoid inbreeding. This is also likely to be the case for rare parrots in captivity.

### 3) Hybridization

Hybridization of sub-species or races is a problem in captive populations because the geographic location of wild-caught founders is often not recorded. Genetic differences between sub-species or races may be important when they result from varying selective pressures operating in different habitats, especially if reintroduction is contemplated. Where possible it is important to attempt to establish what sub-species are kept in captivity and whether hybridization has occurred. A co-ordinated breeding programme can then be established after pure-bred and hybrid birds have been identified.

As resources (space, expertise, time and money) for maintaining viable populations of threatened species in captivity are limited, it is important to establish how many sub-species can be targeted for breeding programmes.

Of course, the practice of hybridization by aviculturists to produce colour varieties and other peculiarities has no place in captive breeding programmes for threatened species and should be positively discouraged.

### 4) Artificial selection

Artificial selection reduces genetic diversity. The practice of selecting birds for breeding on the basis of phenotypic characteristics, such as colour mutations, should be discouraged. Where reintroduction of captive-bred animals to the wild is the goal of a breeding programme, it is important to try and preserve as much genetic diversity as possible and let natural selection operate once the birds have been re-established to their natural habitat.



## 5) Demographic management

Demographic analyses are used to establish the existing sex ratio, age structure, and age specific mortality and fertility rates. This information is used to make projections to establish whether the population is increasing, stable or declining to extinction over time. On the basis of the demographic analyses, management decisions can be implemented that aim to provide a stable age structure, or a surplus of animals for reintroduction to the wild, depending on the aims of the breeding programme.

Population management is one component of a successful captive breeding programme. Problems such as losses of genetic diversity due to unequal founder representation and inbreeding are especially prevalent in species that have been established in captivity over many generations where there has been a lack of population management in the past. For species that have been established relatively recently, these problems can be minimized in the future or even avoided through breeding programmes based on population analyses.

Zoos and aviculturists have considerable potential to aid the

conservation of threatened parrots by participating in co-operative breeding programmes. For a number of endangered parrot species there are more birds in captivity than remain in the wild. It is vital that keepers of these important birds recognize that they must participate in co-operative breeding programmes formulated on the basis of genetic and demographic management. Without this development these wonderful birds have no long-term future in captivity, and the opportunity to re-establish them in the wild will be lost.

## References

- Woolcock, D. (1989). *Scarlet Macaw: Regional Studbook for the British Isles*, Paradise Park, Hayle, Cornwall.
- Zheng-Wang, Z. (1989). The breeding performance of White Eared Pheasant in captivity at Jersey Wildlife Preservation Trust (manuscript submitted to *Dodo*).
- Part Two of this article (to be published in a future *PsittaScene*) deals with the application of these principles, as they relate to the current Scarlet Macaw situation within the U.K.

# PARROTS Pressure & People

P.J. Butler

Throughout the world parrots are under pressure; rampant and relentless deforestation is decimating their habitats in Latin America and South-East Asia whilst capture for the illegal and legal live bird trade sees the export of hundreds of thousands of psittacines from Central and South America, and the nation states of Western Africa.

These factors combined with hunting — for food and feathers — and natural disasters such as the recent passage of Hurricane Hugo across Puerto Rico; have plunged the numbers of some species such as the Mauritius Parakeet, Spix Macaw and Puerto Rico Parrot to the brink of extinction. For some such as the Martinique and Guadeloupe Amazons, and the Carolina Parakeet it is already too late.

No group of birds is under so much pressure across such a large part of planet earth and we could easily be forgiven for being pessimistic when pondering the plight of this family into the 21st Century. Will its only survivors be those species that have adapted to live with man, or those individuals who survive in the unnatural habitats of zoos or living room bird cages?

Tucked away on the tiny islands of St. Lucia, St. Vincent and Dominica in the Eastern Caribbean there are signs of hope for the endemic species of Amazon Parrot.

The story begins in St. Lucia with *Amazona versicolor*; this species of large Amazon is generic to St. Lucia from whence it gains its name. Mostly green in colour it is distinguished by its blue head, red foreneck and red wing flash. In 1975 its population had declined to 150 and according to Jeggo in 1976 it was unlikely to escape extinction.

If this story is set in the Caribbean it also has its heroes, namely its Chief Forest Officer, Gabriel Charles, and his staff who, concerned with the plight of this species, convinced Government shortly after the island's independence to declare *A. versicolor* St. Lucia's national bird. This was accomplished in 1979 and was followed shortly after with the passage of strong protective legislation that affords protection not only to its parrots but to all the island's wildlife. This legislation was balanced with education, changing apathy to appreciation through pride. Schools

were visited, monthly environmental newspapers printed, bumper stickers distributed, songs recorded and billboards erected.

A decade later all hunting together with illegal trade in *A. versicolor* has been eliminated.

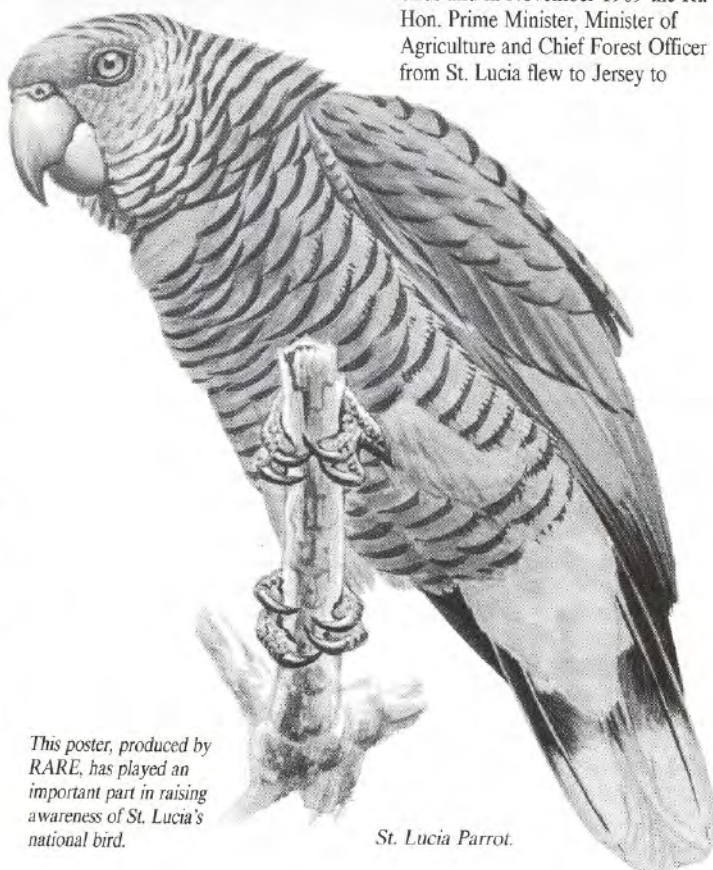
Reserves have been established and there is a strong grassroots support for conservation that has permeated all sections of society. Today the population of *A. versicolor* has increased to 250 and it is gradually expanding its range from the isolated interior forest into areas which it formerly inhabited. Hand in hand with success in the wild have been corresponding strides with the captive flock which is managed on behalf of the St. Lucia government by Jersey Zoo in the Channel Islands. From an initial stock of 9 birds held in 1975 their numbers have increased to 22 birds and in November 1989 the Rt. Hon. Prime Minister, Minister of Agriculture and Chief Forest Officer from St. Lucia flew to Jersey to

accompany the first two captive bred St. Lucia parrots on their return journey to the island from whence their parents came ... St. Lucia.

Similar successes have been recorded in neighbouring St. Vincent with the multi-coloured *A. guildingii*. This species is predominantly dusty-green, with a white, yellow and violet head, a green neck and its tail is tipped with yellow.

Once again this species has been declared the island's national bird and a grass roots education campaign is under way directed by Acting Forestry Supervisor, Brian Johnson. The programme commenced with a questionnaire survey of 1% of the nation's population to determine existing knowledge and attitudes, and then a series of school visits were initiated that resulted in 85% of the nation's children being spoken to; an environmental news sheet was inaugurated and posters, billboards and bumper stickers were produced. Strong linkages have been forged with the local business community (in particular its brewery) and local artists and musicians rallied to the cause. By the end of 1988 85% of the population supported conservation efforts directed towards *A. guildingii* — as determined by a post project questionnaire — and the island's government responded by declaring 13% of the island as a preserve; updating legislation and ratifying CITES (Convention on International Trade in Endangered Species). All captive parrots were registered and banded and an aviary constructed in the Botanical Gardens; which today houses the first on-island captive bred St. Vincent parrot ... five hundred now exist in the wild.

Three islands to the north lies Dominica, home to two species of endemic parrot, the Red-necked Parrot (*Amazona arausiaca*) which numbers about 300 and the rarer Imperial or Sisserou Parrot (*Amazona imperialis*). The latter — a spectacular purple vested Amazon — is one of the world's rarest species, numbered less than 100.



This poster, produced by RARE, has played an important part in raising awareness of St. Lucia's national bird.

St. Lucia Parrot.

continued overleaf



1989 saw the initiation of Project Sisserou, giving a boost to that island's parrot conservation programme which is under the direction of Felix Gregoire. Project Sisserou consolidated education efforts including a school visitation programme, puppet show, and the production of posters, booklets, news sheets, bumper stickers and billboards. Songs for the sisserou were recorded and music videos produced; all with the objective of highlighting the plight of Dominica's

national bird. The government responded by strengthening legislation and donating funds to purchase critical habitat which were supplemented with donations from both the landowner and 42% of the nation's school children. Aviaries have been constructed and it is hoped that a captive breeding programme will be initiated. The future of the Imperial Parrot is not yet secure but with strong local support and a concerned government it is widely believed that

this Caribbean psittacine will join its Caribbean cousins which whilst still threatened are at least on the road to recovery.

A number of external agencies have assisted in the aforementioned programmes including RARE Center for Tropical Bird Conservation, World Wildlife Fund, Jersey Wildlife Preservation Trust, International Council for Bird Preservation and Wildlife Preservation Trust International. Their role has been

catalytic, but nothing could have been achieved without the dedicated efforts of the islands' forestry departments, the true saviours of Caribbean psittacines.

P.J. Butler

*Ed: Paul Butler is too modest. He has played a leading role in the achievements he describes above. He is now a citizen of St. Lucia and is Caribbean Programme Director for RARE (Rare Animal Relief Effort).*

## HYACINTH MACAW PROJECT

*A valuable field research project to be carried out by Danish biologists, Elin Pitter and Mette Bohn Christiansen*

### A. STATEMENT OF CONSERVATION NEED

The Hyacinth Macaw (*Anodorhynchus hyacinthinus*) is suffering a marked decline throughout its range, particularly in the Pantanal, Brazil, although it is still locally common here. The main causes of the decline are the illegal capture for the pet trade, and probably also loss of certain vegetational elements. Unless the current trend is reversed, the species may soon go extinct in nature.

Some parts of the Pantanal still have sufficient populations for studying the bird and its basic requirements under natural conditions.

A knowledge of the sensitivity of the macaw to disturbance is a prerequisite for properly planned tourism in the area. The tourism could furnish an income for the locals and would be a good incentive to preserve the bird in the wild.

### B. SIGNIFICANCE OF CONSERVATION ISSUE

The situation for the Hyacinth Macaw is not exceptional. Many other parrot species face the same threats as the Hyacinth Macaw. The study will have relevance for the conservation of these species as well.

In Brazil export of the birds is prohibited, but they are smuggled out of Brazil into Bolivia, most of them via Corumba. This means that the populations in the area near Corumba are particularly threatened (Ridgely 1980).

### C. BACKGROUND INFORMATION

Jørgen Bent Thomsen of WWF TRAFFIC visited the Pantanal a year ago and found the situation for the Hyacinth Macaw very critical. The population has declined drastically during the last years and it is estimated that there are less than 3000 individuals still in the wild. The major



*These are two 17 week old Hyacinth Macaws currently being reared at Palmitos Park, Gran Canaria, by Rosemary Low.*

cause of the decline of the species is the illegal capture, but other factors might be involved as well, like the accelerating destruction of certain vegetational elements of the habitat. At least in the central part of the distributional area, the macaw is threatened by cultivation of the cerrado, where the macaw forages. In that area the macaw prefers palmnuts of the genera *Syagrus* and *Astalea* (Roth 1989). In other areas the menu of the bird might be different. Most of the illegally caught birds are adults (Roth 1989), but it seems that in some areas nesting trees have been cut in order to catch the young birds, and in this way the amount of suitable nesting holes has been diminished. This can be a limiting factor locally. The macaw is furthermore in some parts of the Pantanal regarded as a pest and is therefore eliminated (Sick 1984).

J.B. Thomsen suggested that WWF should launch a study of the basic biological requirements of the Hyacinth Macaw and Nigel Collar of ICBP mediated the contact resulting in

our present plan to do a six month field study in the Pantanal. The contents of the project were further discussed in June 1989 at a meeting in Copenhagen with Donald Bruning, chairman of the Parrot Specialist Group of ICBP. Donald Bruning stressed the importance of further studies of the bird in the wild, since very few detailed studies have been done so far.

### References:

- Ridgely, S. 1980: The current distribution and status of mainland neotropical parrots. Proceedings of the ICBP Parrot Working Group Meeting, St. Lucia, 1980.  
R.F. Pasquier, editor, Smithsonian Institution Press.  
Roth, P. 1989: Der Hyazintara. Papageien 1: 20-24.  
Sick, H. 1980: Ornitologia Brasileira. Vol. 1 & 2. Editora Universidade de Brasilia.

### D. OBJECTIVES

The primary aims of the study are:  
1) to collect information on habitat use

and the basic biological requirements of the species for food and nesting under natural conditions;  
2) to investigate the tolerance of the Hyacinth Macaw to disturbance from tourism in the area and the importance of the bird as a tourist attraction.

### E. METHODS/PLAN OF ACTION

#### 1. Biology and ecology

a) Study area, period and techniques  
We plan to do the field studies in Miranda near Aquidauana as recommended by J.B. Thomsen. There are still good populations of Hyacinth Macaws in this area and accommodations can be provided on a farm.

The study is planned to take place from November 1989 till April 1990. The field techniques (observations, capturing etc.) are being planned in close contact with Carlos Yamashita, Paul Roth and Charles Munn. Decisions about what is the optimal study area and number of birds to be followed are best made after the first few weeks in the field.

We intend to contact the local trappers, because they can give important information about the bird and its status and can recommend places and methods for catching the birds for banding.

b) Habitat use and feeding habits  
Initially we intend to focus on some pairs or parties in a small area and make a study of the home range size and in particular the importance for the macaw of the different elements in the landscape. We want to clarify the pattern of movements of the individual birds on a daily basis and how much of the habitat potential food resources are actually used by the birds. For this purpose we need to band and radiotrack some individual birds.

Radiotracking on parrots is a little studied subject and very difficult, because of the behaviour of the birds (they usually don't accept any foreign objects attached to their bodies). J.B. Thomsen has made contact with Jim Weiley, who has worked with radiotracking on the American Condor. He is interested in joining the project initially to help start up the radiotracking part of the project. In connection to this, Brazilian biologists,



who would be interested in learning the technique, could be invited to participate. After having had more experience we would like to make a workshop on the subject.

It is known that the bird prefers various species of palmdnuts, but a more detailed study of the food requirements would be very useful for conservation purposes. We would do both field observations of the time budgets of the birds and the food selection and examination of stomach contents as a supplement to observations of the feeding. Extraction of the stomach contents will be carried out by anaesthetizing the bird and then pumping out the contents of the stomach. A veterinarian will teach us the technique. Samples of stomach contents will be taken at regular intervals during the study period to reveal changes in the composition of the food intake. Furthermore fruits will be collected for determination of nutritional value.

#### c) Nesting locations and breeding habits

Nesting locations will be studied, especially which species of trees are used. In some areas also holes in cliffs are used for nesting.

Furthermore we will monitor the breeding behaviour and success of the pairs. Fledgling birds will be banded.

This will give information about social structure, survival and movements.

## 2. Tourism

### a) Ecological components

The Pantanal is currently being exploited in different ways — many of these having a deleterious effect on the flora and fauna. A sustainable use of the area could be tourism, if planned properly. In this project we would like to investigate the tolerance of the Hyacinth Macaw to disturbance.

We will study a flock of birds which is accustomed to disturbance from tourists. Experiments will be carried out on Roberto Klavin's farm, where a tourist lodge is situated. It is known that the bird is quite tame if not persecuted, but it is important to find a threshold level to the tolerance of the bird to disturbance. We will expose the birds to various amounts of disturbance, like different sized groups of tourists passing by with different intervals. Behavioural reactions like anxiety, cessation of foraging, flying off are parameters that will be used for assessing stress. These results will be compared with the behaviour of an undisturbed flock.

In the Pantanal there is already tourism in many places, and it will expand in the years to come. Therefore a major plan for the development of tourism is of great importance. The

knowledge of the reactions of the Hyacinth Macaw to tourism can contribute to such a plan.

Furthermore we will interview the tourists to get an idea of the importance of the bird as a tourist attraction. We will work out a questionnaire for distribution among the visitors on the farm.

b) Economic and sociological components and local involvement  
We have contacted Professor Eliezer Marques, Director of Research at the Federal University of Mato Grosso do Sul. He was very interested in the project and guaranteed his support. The project could be integrated in a major conservation plan for the Pantanal, and the university would like to continue the project.

Also Roberto Goncalves, director of the 'Departamento de Recursos Naturals' at SEMA-MS was contacted. He will be helpful in contacting the landowners to facilitate working in various places in the Pantanal.

Both were very interested in reading our project description and will comment on it as soon as possible.

We will discuss with the locals as well as people in the travel industry possible ways of creating a bird tourism that could represent an economic alternative to the present exploitation of the wildlife. Contact is

established with Sander Gellert of Scandinavian Airlines System who is interested in developing tourism in the area. He might support the project by giving free airfare tickets. In return he would like to get some information on the value of the Hyacinth Macaw as a tourist attraction.

## F. ANTICIPATED PROJECT FOLLOW-UP

We would like to continue the project on a larger scale. It is of great importance to survey various areas in the Pantanal to be able to make a better estimate of the population size. This also gives an opportunity to reveal local differences in the kind of threats towards the macaw.

There are indications that parts of the population migrate and thus use some different habitats in the course of a year. For conservation purposes it is very important to get a picture of these large scale movements and whether this reflects different requirements at different times in the annual cycle of the bird or different supplies of food. This would imply banding of many individuals in a large area.

We would be glad to hear your viewpoints on the desirability and possibilities for funding of a large scale project.

(See our Action Page. Ed.)

# International News Round-Up

At the CITES meeting held in Switzerland last October, three more parrot species were transferred to Appendix 1 (endangered). These are the Moluccan Cockatoo, Illiger's Macaw and the Tucuman Amazon. Excessive trade has been responsible for the decline of two of these species.

For the past decade, the scale of the trade in the Moluccan, (*Cacatua moluccensis*), the largest of the White Cockatoos, has been especially disturbing. Numbers known to have been legally exported from Indonesia reached a total of 54,600 in the seven years from 1981 to 1987. Clearly, no Indonesian cockatoo can tolerate trade on this scale and not suffer a severe reduction in numbers.

It should be pointed out that the USA imported most of these birds — over 50,000. The sad part is that many adults were exported which are totally unsuitable as pets, being highly nervous and stressed by the close presence of humans. They are suitable only for aviaries and the number of people who can house them properly is very limited, especially in the USA where there are restrictions on keeping birds out of doors in certain areas.

Many of these imported cockatoos are doomed to a life of misery in a small cage. While some can adjust to this, the hardest aspect for them to cope with is solitary confinement. Cockatoos are highly sociable birds and without the presence of their own kind captivity is psychological torture. If you know of or own an adult Moluccan Cockatoo which is not tame and which is kept on its own, please make an effort to get this bird in to a situation where it has the opportunity to breed. Very few cockatoos of this species are bred in captivity. It is extremely important that more breeding attempts are made, especially with some of the pet birds which, at present, have not been too long in cages. The longer they are cage-cramped and without wing exercise the longer it will take to recondition them for breeding.

The reason for the decline of Illiger's Macaw (*Ara maracana*) is probably deforestation, since wild-caught birds in trade are a rarity. Its addition to Appendix 1 was proposed by Paraguay. The proposers described it as one of the least known of neotropical parrots, there being very

little knowledge of its feeding or breeding habits. They quoted two ornithologists who, in 1983, could find only eight or ten specimens in the Argentinian departments of Canendiyu and Ananbay, and another ornithologist who in 1989 could find only one pair in the department of Concepcion after being in the field for eight months. There were no sightings at all for Argentina. In south-eastern Brazil where deforestation has been so severe, it survives in a few scattered remnant forests. Hopefully there is a secure population in other localities, such as the pantanal area of Brazil.

Fortunately Illiger's Macaw is extremely free-breeding in captivity. It is common for pairs to produce two or three nests of young every year.

The Tucuman Amazon (*Amazona tucumana*) was unknown in captivity until a decade ago. Suddenly it began to be trapped and exported in such huge numbers that at one period in the UK, for example, it was virtually the cheapest Amazon available. It is extremely vulnerable to trapping because it congregates in large roosts. During the years 1984 to 1986 a total of nearly 7,500 Tucuman Amazons







Tucuman Amazons. Breeding pair at Palmitos Park, Gran Canaria.

were exported from Argentina. No species with a restricted and specialised habitat (alder forest) can survive trapping on this scale.

One of the smaller Amazons, it is a suitable species for a pet and, like all small Amazons, should breed readily in aviaries. Undoubtedly, there will be many more breeding successes in the next few years. I would urge those who are successful to initially retain or exchange the young for breeding purposes, rather than sell them as pets. In a few years time the value of this little Amazon will undoubtedly have

soared. If it is to be established in captivity, more thought must be given to its future by those fortunate enough to breed from it. The wise ones will not be selling the young for a few years to come.

Rosemary Low

Editor's Note: Beginning in the next issue of *PsittaScene*, we will be running a series on Appendix I Parrots, featuring one species in each issue. The first will be the Hyacinthine Macaw.

## MEXICO

The parrots of Mexico, especially Macaws and Amazons, have declined dramatically during the past decade due to excessive trapping and because of extensive deforestation. Dr. J.P. Ehrenberg of Universidad Autonoma de Yucatan is so concerned about the status of most species that he is setting up a breeding centre, with the emphasis on Amazons. It is very difficult to obtain adult Amazons in Mexico, except for the Spectacled (*Amazona albifrons*) and the Yellow-cheeked or Red-lored Amazon (*A. autumnalis*) — a fact that appears ironic to those in Europe and the USA where most of the Amazons from Mexico are readily available. There is one exception — the little Yellow-lored (*A. xantholora*), which has always been extremely rare in aviculture. It can briefly be described as like a small spectacled, but the male has the lores yellow; the female lacks this colour and has no red around the eye.

In a letter to the editor of *PsittaScene*, Dr. Ehrenberg described how the aftermath of Hurricane Gilbert (September 1988) had affected this little Amazon. A "plague" of this

species invaded the citrus groves in the central zone of Yucatan. Their traditional food at that time of year (December), fruits and corn, had been destroyed by the hurricane, thus they had to search for food in other localities. Spectacled Amazons were also affected. Dr. Ehrenberg wrote "The tragedy for these Amazons is that the owners of the citrus groves are either capturing them to sell or killing them. Little effort is being made, particularly by our authorities, to think of alternatives to keep them out of the area."

He had observed a flock of 1,000 Amazons which descended on the orange trees and stayed for one hour, late one afternoon. This resulted in the conservation organisation Pro-Natura, assisted financially by the American Federation of Aviculture (AFA), carrying out a two-week study in order to develop a survival plan for the local Amazon population.

## DOMINICA

The most critically endangered of all Amazons (with a total population which may be smaller than the combined wild and captive population of even the Puerto Rican Parrot (*Amazona vittata*), is the Imperial Amazon. Dr. Peter Evans, the British ornithologist who, for a decade, has virtually dedicated his life to this bird, estimates its population as about 60 individuals. A magnificent parrot, it is the largest, and, in some respects, the most unusual of the Amazons. For several years its existence has been threatened by destruction of its forest habitat for agricultural purposes. Banana plantations are the life-line of Dominica. But since Hurricane David in 1979 the Imperial's habitat has been reduced to a tiny area of Morne Diablotin, in the north of this mountainous island.

There was a race against time to obtain the funds to purchase the most important area for its preservation. A memorandum was signed in 1988 between the Government, ICBP (International Council for Bird Preservation) and RARE (an American-based conservation group) regarding the purchase of land which was critical for the survival of this species. A downpayment was made by both organisations — and it seemed

that at least a small part of this vital area had been secured. But it was not as simple as that. Problems arose when the landowners decided to increase the price and when a timber company actually started logging the area which was supposed to have been secured.

The recommencement of logging was discovered by ICBP personnel on July 23 1989. They acted quickly. Next day a meeting was held between them and the Government (and others) to discuss how the land could be acquired. At another meeting, which included representatives of landowners, one owner of some of the desperately needed land, Dominica Fruit Syndicate, generously donated 59 acres. Two days later an agreement was signed which enabled ICBP, RARE and the Government of Dominica to purchase another 120 acres. While this can be considered as a twelfth hour reprieve for the Imperial Parrot, funding for this long-term project is still desperately needed. If you can help, please send a donation care of Dr. Peter Evans, Edward Grey Institute of Field Ornithology, Dept. of Zoology, South Parks Road, Oxford, OX1 3PS, England. Please mention that you are responding to an appeal in *PsittaScene*.



Imperial Amazon Parrot. These were photographed by Mike Reynolds in the Caribbean in 1978.

## USA/INDONESIA

Jan van Oosten, founder and conservation chairman of the International Loriidae Society, reports on a field project to be funded by the society. During his visit to the UK in September last year he discussed this with Nigel Collar and Tony Juniper of ICBP. His proposal is that the ILS shall raise about \$13,000 to sponsor a team from East Anglia University to do a survey of a rare lory found only on the island of Sangi (Sanghir), Indonesia. It is the Red and Blue Lory (*Eos histrio histrio*), believed to be rare — but field work is needed to establish its present

status. It is unknown in captivity. The ILS has commissioned British bird artist Eric Peake to do ten paintings of Lorries. Limited edition prints will be sold to raise funds for the conservation/research fund.





ACTION PLAN

### Place an advertisement for the World Parrot Trust

One of our members on Guernsey had a good idea. She asked us to supply an ad for the trust which she could place in her local newspaper. We prepared the small single column ad you see here, and she did the rest. The result was a satisfactory number of new members for the trust. If you would like to do the same, please write and let us know. For your guidance, a typical cost of this size of ad in a local newspaper would be around £15.

**HELP SAVE THE PARROTS OF THE WORLD**

As rain forests and other habitats are destroyed, over 70 species of parrot face extinction. Please help us preserve these beautiful, intelligent birds in the wild, and work for their welfare in captivity. We are the parrot specialists - we urgently need your support. Send £10 for a membership pack, or a donation, or write for more information to:-

**WORLD PARROT TRUST**  
 Regd. Charity No. 800944  
 Glanmor House, Hayle,  
 Cornwall TR27 4HY

### New Membership Leaflet

With this issue of *PsittaScene* we have included copies of our new membership leaflet. The very best way in which you can help the trust is by recruiting new members, and if you can send us *two completed forms with payment* we will be delighted to send you an enamel lapel badge featuring our Palm Cockatoo logo.



**WHAT CAN YOU DO TO SAVE THE PARROTS FROM EXTINCTION?**

## PROJECTS, IDEAS, OPPORTUNITIES AND NEWS FOR MEMBERS

### Help the Hyacinth Macaw Project

You will have read in this issue of the Danish Hyacinth Macaw Project in Brazil. The trust is confident that this project will have considerable conservation value, and has already made a contribution of 1,000 US dollars towards the initial budget of 13,280 dollars. More funds are required and we would welcome specific donations from trust members and other recipients of *PsittaScene*. Cheques should be made out to 'World Parrot Trust — Hyacinth Project'.

### Photographs

Interesting parrot-related photographs are needed for future *PsittaScenes*. Please send to our editor, Rosemary Low.

### Book Reviews

The trust has arranged for Andrew Greenwood, MA, Vet., MB, MRCVS, to carry out book reviews. Please send any relevant material to him at the trust's address.

### Project Update

**Mauritius.** Excellent news from Carl Jones, who is masterminding the work in Mauritius to save the Echo Parakeet, which is reduced to only about 15 specimens. Two chicks are currently being reared in captivity by Ring-necked Parakeet foster-parents. The World Parrot Trust provided £4,000 towards this project in 1989 and plans to at least match this contribution in 1990.

**Caribbean.** The trust has just undertaken to re-print 10,000 of the conservation posters featuring the St. Lucia Amazon (*Amazona versicolor*) seen on page 7. Half of these posters will be used on St. Lucia for educational purposes, half will be retained by us. We anticipate that copies will be offered to members in the next issue of *PsittaScene*.

### New T-Shirt

We now have a supply of T-shirts with our logo, and they look very good. They cost £10.00 each including post and packing (Britain and Europe), or 18 US dollars (or equivalent) elsewhere. Please state size required: S, M, L or XL. White only.







# HOW YOU CAN HELP

## *The World Parrot Trust*

1. *Please communicate. Let us have your comments on 'Psitta Scene', the objectives of the World Parrot Trust, and any other parrot-related matters. Let us know of any projects we might be able to consider.*
2. *Articles and news items would be appreciated. Send them to Rosemary Low, Editor, 'Psitta Scene', World Parrot Trust, Glanmor House, Hayle, Cornwall TR27 4HY, U.K.*
3. *The trust aims to establish support groups worldwide. If you can help with this, write to Michael Reynolds, Hon. Director, World Parrot Trust.*
4. *Members are very welcome. Please consider joining the trust, and recruiting friends and associates.*

# YES I WANT TO BE A PARROT CONSERVATIONIST

Helping the **SURVIVAL** of all parrot species,  
and the **WELFARE** of every individual parrot.

Name Mr/Mrs/Ms \_\_\_\_\_

Address \_\_\_\_\_

Postcode \_\_\_\_\_

### SUBSCRIPTION RATES (please tick)

- Single £10     Family £17.00     Fellow £100     Overseas \$25 US Dollars (or equivalent)

Additional donation £ \_\_\_\_\_  
*If you can afford to give more than the basic subscription rate, your money will help us fight harder to save the parrots.*

I enclose cheque/P.O. for £ \_\_\_\_\_ payable to  
or The World Parrot Trust

Please charge my Access/Visa Ac/No.

Card expiry date \_\_\_\_\_ Amount £ \_\_\_\_\_ Date \_\_\_\_\_

Signature \_\_\_\_\_  
OR better still, please sign this Banker's Order

### BANKERS ORDER

To: The Manager \_\_\_\_\_ Bank

Address \_\_\_\_\_

Postcode \_\_\_\_\_ Sortcode

Please pay The World Parrot Trust, the sum of £ \_\_\_\_\_  
every month/year, starting on \_\_\_\_\_ (date), and  
debit my account no. \_\_\_\_\_

Signed \_\_\_\_\_

Pay to The World Parrot Trust, A/C No. 91144022,  
Midland Bank plc, Exmouth, Devon EX8 1HF.

Please send to The World Parrot Trust, **NOT** to your bank.

The World Parrot Trust, Glanmor House, Hayle, Cornwall TR27 4HY, U.K.

## 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.

This objective will be pursued in the following ways:

- a By educating the general public worldwide about the threat to parrot survival, and seeking their interest, concern and support.
- b By action to protect and preserve the natural habitats of parrots worldwide.
- c By gathering and disseminating information on the status of parrot populations in the wild and in captivity.
- d By advocating effective controls on the international trade in wild-caught parrots, and its replacement by captive-bred birds.
- e 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.
- f By promoting high standards in the keeping of parrots as pets.
- g By encouraging research projects, i.e.: the veterinary care of parrots, and the preservation of genetic diversity.
- h By any other means that may be appropriate.

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