Psitta scene

PROMOTING HIGH STANDARDS
IN PARROT CONSERVATION
AVICULTURE AND WELFARE

The World Parrot Trust

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SURPRISE! World Parrot Trust not universally popular

By Michael Reynolds

It had to happen. Almost seven years after the World Parrot Trust was launched into a largely indifferent world, we find that there are people in the parrot community who are critical of us. The puzzling question is: why did it take so long?

The answer is that it didn't take seven years; we were unpopular in some circles right from the start. This was inevitable, bearing in mind the unique nature of the parrot world. The crane, pheasant, duck, pigeon, canary, softbill and seagull people no doubt have their differences, but these are trivial compared with the heated conflicts that divide groups and individuals interested in the parrots.

We all know the reasons for this. In addition to the human failings that affect any special interest group, we have to contend with two particular difficulties: first, collecting mania, for which the parrot family with its 330 diverse and beautiful taxa seems to have been precisely designed; and second, the significant profit opportunities that surround the parrots.

These factors created the hair-raising history of the past twenty-five years, when literally millions of parrots were trapped in the wild, suffering considerable loss of life, and transported to satisfy the demands of the developed world. Most aviculturists didn't know what was happening - I only realised in the mid-1980s - and by then immense harm had been done to wild populations of parrots. Today, some aviculturists wish to deny that this 'feeding frenzy' occurred.

No wonder scientists and wildlife authorities in 'parrot range' countries were outraged, and conservationists everywhere were demanding an end to this uncontrolled and insupportable exploitation. It was in this atmosphere that our small but intrepid group of trustees went, in May 1989, to introduce our brand new 'World Parrot Trust' to an important conservation organisation. We explained our aims (which we have just revised to make them clearer and more concise - see page 15) and found that we were regarded as a bunch of scoundrelly aviculturists who had thought up a new scam for exploiting parrots. We went away in thoughtful mood, more conscious than ever of the deep gulf that separates the hobby we love from the viewpoint of the scientific world.

It wasn't long before we met our second rebuff. This was from a leading UK bird-keeping publication, which refused to allow us to attend their National Exhibition, or advertise, or be mentioned in their editorial pages. This was because we advocated 'effective controls on the international trade in wild-caught parrots, and its replacement by aviary-bred birds'. They thought, mistakenly, that our proposals would cut their advertising revenue.

We were surprised by these reactions, but we persevered with our aims, and found that we could successfully raise a little money and invest it in helping the survival of endangered parrots, such as the Echo Parakeet and the Hyacinth Macaw. Our membership grew slowly but surely, and we found that all kinds of people supported our aims. Many

"psittacine
(sit´à sîn) Belonging or allied to the parrots; parrot-like"

This is Hoki, genetically one of the most precious birds in the world. She is a Kakapo - the only female of this critically endangered parrot to have hatched and survived in recent years. Read about the involvement of the World Parrot Trust in the fight to save the Kakapo from extinction. See page 5.

Photo: Rosemary Low

World Parrot Trust

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Members of
IUCN
The World Conservation Union

'Quality of life' in the wild. Red-tailed Amazon
Photo: Paulo Martuscelli

'Quality of life' in captivity. St. Vincent Parrot

aviculturists, lots of pet owners, quite a few scientists and 'conservationists', zoo people, government bodies, and others.

In time, we were able to cooperate successfully with the conservation organisation that distrusted us, and the publication that banned us. We found that a reasonable percentage of aviculturists understood our point of view. Other organisations flattered us by copying our activities. The uncontrolled trade in wild-caught parrots went into sharp decline. Our success as aviculturists in breeding enough birds to satisfy the demands of the pet trade became clear. The scientists, rather reluctantly, gave us some credit for reducing the demand for wild-caught parrots. The World Parrot Trust had started something, stuck to its guns, and had made things better for the parrots of the world, both in the wild and in captivity.

In addition to changing attitudes within aviculture, we have sought to emphasise to the scientific world the conservation value of captive breeding. We have also pointed out that our financial interest in the parrots is often mirrored by their own, in the form of salaries, research funding, career development.

So far so good. In recent months, however, we've been 'talked down' a little by some people in the feverish world of the parrots. This is to be expected, since we've been quite successful in changing attitudes, raising money to help the survival and welfare of parrots, and expanding our organisation internationally with eleven national branches of the trust. It has been suggested we are 'anti-aviculture'. Shock-horror! And how ridiculous. Of all organisations, ours has done more than most to establish aviculture as a caring, worthwhile, admirable hobby, capable of being involved effectively in the long-term task of preserving parrots in the wild, and ensuring their well-being in captivity. We have introduced and promoted the concept of 'responsible aviculture', where the interests of the parrots themselves come first.

WE SUPPORT AVICULTURE

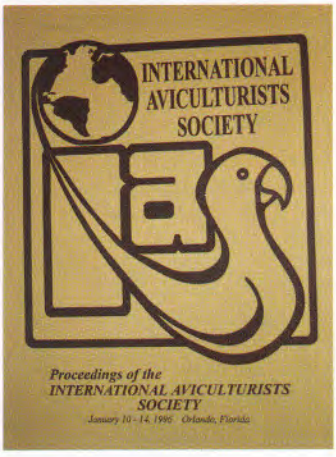
We support aviculture with all our hearts. What we oppose are the regrettable excesses of the few: greed, illegality, and cruelty. If your only interest is in making as much money as you can from the parrots, we are anti you, and you will be anti us. If you think that smuggling is OK, you don't belong with us. As for cruelty, every aviculturist knows that many parrots are kept in very poor circumstances. We all share a responsibility to educate beginners, or some who may be careless, about how to give our birds a decent and fulfilling life. Is it too much to ask our fellow hobbyists to 'think like a bird'? Give it a try: let's say you're a fledgling Eclectus parrot. Do you really want to be deprived of the one thing that makes a bird a bird: the ability to fly? Do you accept the almost automatic assumption of many commercial bird breeders that the first thing you do with a pet parrot is clip its wings? I heard it said recently on a television pets show that the purpose of this is 'to protect the bird'. The truth is that it cripples a bird and transforms it into a convenient piece of merchandise.

If you were a parrot, would you want to be grounded, and confined for ever in a few cubic feet of space? If you were lucky enough to have a mate, would you want to be regularly deprived of your eggs and the chance of rearing young? Is it right that so many parrots, with all their intelligence, have to spend their lives in parrot production facilities that differ little from intensive poultry enterprises?

'Aviculture' has become shorthand for 'the culture of birds in captivity'. We have no problem with that concept, and indeed we happily participate in it. We are entitled, however, to ask that captive birds be given the right to fly, and sufficient space to do it adequately. Take note that modern aviculture has been so successful in breeding parrots that the market is becoming over-supplied. Prices are falling, and will continue to do so. Perhaps this will cause the pendulum to swing back in favour of the welfare of our birds, so they can be treated as respected individuals, live less intensively in more space, raise their own young, and do what nature designed them to do : fly.

Just as our ideas were dismissed in our early years but became generally accepted, we now call for standards designed to improve the wellbeing of our birds, and thus the image of our great hobby. Ask yourself this question: 'do my birds enjoy a satisfying **quality of life?**'

'Anti-aviculture'? Not on your life. 'Pro-parrot'? Definitely. Thousands of people in over fifty countries support our work for the parrots, and the great majority of them are aviculturists. If you hear the World Parrot Trust being given a hard time, don't let it bother you. It doesn't bother me. Criticism from both ends of the parrot spectrum means we are moving in the right direction, and maintaining a fair balance in favour of the parrots. Let's keep on working to create a world of responsible aviculture in which we can all take pride.



IAS Convention in Orlando

Important topics include latest research on PDD

Report and photographs by Rosemary Low

INTRODUCTION

The International Aviculturists' Society (IAS) exists to promote avicultural education, research and conservation. It has no paid officers yet every year distributes substantial sums to appropriate causes that need funding. How does it do this? Primarily, through its annual convention, the first three of which raised more that $82,000. This year the meeting was held in Orlando, Florida, from January 11 to 14.

These dates coincided with a period of exceptionally severe weather. In some northern states 4ft of snow prevented would-be participants from leaving their homes or local airports. Despite this, more than 200 people attended. Some had driven for 24 hours in appalling weather conditions, including the hard-working organisers from Tennessee, Richard and Luanne Porter. Some of the helpers had come from as far away as Alaska!

There was something for everyone at this meeting: for aviculturists, conservationists and pet bird owners, with papers from veterinarians on disease and prevention. The exhibit hall was a constant hive of activity where participants could buy an excellent range of parrot-related items. The World Parrot Trust's stand was located here, manned by Cynthia Webb, a tireless worker for WPT USA. She also copes with the day to day tasks of running this section.

Throughout the three days of the convention she sold hundreds of T-shirts, including the Trust's latest design; she sold out of videos, enrolled more than 30 new members and made many renewals. Gail Worth generously donated 100 of her Baby Bird Calendars (more beautiful than ever this year) to give away to new members and for renewals. (You can buy a copy from her at Aves International, PO Box 2863, Rancho Palos Verdes, Ca 90274, fax 310- 544-4090).

In the lecture hall, stimulating information was exchanged. Elsewhere in this issue, a paper read by Dr Andrew Greenwood is reproduced in full. Most of the speakers, however, concentrated on aspects which are closer to home, such as the welfare of the birds in our care.

The report of this meeting will be covered under three headings.

The first is:

VETERINARY DEVELOPMENTS

News regarding polyomavirus (Budgerigar fledgling disease) was reported by Dr Branson Ritchie of the University of Georgia. The work of his team is known worldwide and has culminated in the availability (in the USA) of a vaccine. Typically seen in parrot chicks aged 15 to 19 days, the disease has caused heavy losses since the early 1980's. Infected chicks bleed easily and subcutaneous haemorrhages over the crop and skull are common. Aviculturists and the IAS have provided funding for much of the work carried out at the University of Georgia. Dr Ritchie suggested that where the vaccine is available, all young parrots should be vaccinated twice (at an interval of two weeks) before being sold. All birds in one location should be vaccinated. In this way the disease will be stamped out. (For further information on the vaccine, call Biomune, Lenexa, Kansas, tel 913-894-0230.) A DNA probe based test is valuable in identifying birds which are shedding the virus. (Contact Avian Research Associates, Milford, Ohio, tel 513-248-4700 for more information.)

One reason why commercial parrot breeders (of whom there are more in the USA than anywhere worldwide) attend conventions is to receive the latest updates on disease - especially those caused by a virus, which can have a serious impact on parrot production. A decade ago Psittacine Beak and Feather Disease was one of the most serious problems in aviculture. Now it is under control, due to research which resulted in tests and vaccination, also due to the greatly decreased availability of wild-caught parrots.

At this year's convention the disease most widely discussed was described by Dr Michael Taylor of the University of Guelph (Ontario Veterinary College) as "the most serious problem that aviculturists face". It is Proventricular Dilatation Disease (PDD). If you keep parrots, do not skip over this item as being of no interest to you. Unfortunately, every keeper of more than a few birds has been or soon will be, affected. During the last three to five years the impact of this disease has been felt throughout the USA and Europe. Branson Ritchie's team at the University of Georgia are now concentrating their efforts to achieve the same results as those with PBFD. The indications are that it will be even harder.

PDD, formerly called proventricular dilatation syndrome and macaw wasting disease, hits the nervous system. This results in the proventriculus being unable to function normally. The proventriculus, Dr Taylor told us, is the part of the stomach which produces gastric acid. The ventriculus, the adjoining section of the stomach, shoots food into the proventriculus, then back into the ventriculus, until the food is broken down. In most birds affected with PDD, the proventriculus becomes enormously enlarged.

Dr Taylor described how the early stages of the disease can be tentatively diagnosed using a fluoroscope - a low output X-ray machine with intensifying screen or video screen. Unlike an X-ray, there is no need to anaesthetise the bird

WPT devotees at the Orlando Convention - from left to right, Michael Reynolds, Richard Porter, Rosemary Low, Andrew Greenwood and Charles Munn.

Cynthia Webb at work on the World Parrot Trust stand.

to carry out this procedure. It can be done while the parrot is inside a carrying box, for example. The fluoroscope will show whether the proventriculus is enlarged. Other tentative means of diagnosis are a crop biopsy and barium meal and X-ray. Barium transit time is usually three hours but in an affected bird it has been recorded as long as 19 hours. It is not possible to diagnose PDD in a living bird. This is partly because the same symptoms can be caused by other reasons. One of them is lead toxins (and possibly other toxins).

Positive diagnosis of PDD requires the microscopic demonstration of characteristic lymphoplasmacytic infiltrates within nervous tissue. Microscopic examination of the proventriculus, crop or brain of affected birds is currently the only way to confirm the disease.

When Dr Ritchie spoke on PDD on the final day of the convention, the hall was crowded. He described symptoms of the disease - but these are not consistent. They include weight loss (with or without decreased appetite), passage of undigested foods in the faeces, regurgitation, lethargy, polyura, diarrhoea, abnormal head movements (or position) and seizures. Clinical laboratory findings are inconsistent. Mycotic and/or bacterial infections are common and may complicate the laboratory picture.

One factor emphasised by Dr Ritchie is that a dilated proventricular in chicks is NOT DIAGNOSTIC. IT IS NORMAL.

What causes this disease? As yet this is not known with certainty. However, Dr Taylor stated: "We are close to understanding that a viral agent causes it." It is not yet known if there are carriers. There are different opinions on how infectious it is. Dr Ritchie described it as having "a low transmissability compared to polyoma or PBFD" but Dr Taylor described it as "highly infectious".

OUTDOOR BIRDS LESS AT RISK

An important fact to emerge from Dr Taylor's discussion is that birds in outdoor aviaries are less at risk than those in a controlled environment. PDD has been described in birds as young as 10 weeks, also in species other than parrots (toucans, weavers, wild geese and spoonbills).

It has been estimated that the avicultural contribution needed to ensure the continuation of the research at the University of Georgia is £300,000 over a three year period. Dr Ritchie told the audience that the University provides laboratory space and technicians - but when the money runs out (as happened in the past), these are no longer available to the research team. He also said that the most important discoveries regarding PDD were made in the previous four months. Obviously it is vitally important that more funding is received in the near future. Many individuals and clubs present responded to this appeal, including The World Parrot Trust ($1,000). More funding is needed. Please send your donation to the PDD Fund, IAS, PO Box 280383, Memphis, TN 38168. You can use the PDD leaflet enclosed with this issue of *'PsittaScene'*.

Other papers on veterinary topics were presented by Gregory Rich (viral diseases and preventative medicine), Keven Flammer (fungal diseases) and Matthew Bond (using papilloma infected macaws for breeding). Fern Van Sant's detailed description of how to carry out a physical examination of a parrot was outstanding.

CONSERVATION AND FIELD STUDIES

On the second day there was an evening session devoted to "Parrots in the Wild". Charles Munn showed film about the macaws of the Tambopata region of Peru. There was moving footage of these birds, with Mealy Amazons and Blue-headed Pionus, at the clay lick there. His two papers published in the Proceedings described conservation projects for Lear's and Hyacinthine Macaws, much of which has already been reported in *PsittaScene.*

Matthew Bond, a veterinarian from Florida, showed a short film depicting the plight of the Imperial and Red-necked Amazons (*Amazona imperialis* and *Amazona arausiaca*) endemic to Dominica. They are threatened by habitat destruction and, now that the Red-necked's numbers have increased (having recovered somewhat from the decline caused by Hurricane David), even by persecution by farmers. Global warming could increase the incidence of hurricanes. One hundred parrots on Dominica died as a result of Hurricane David in 1980.

AVICULTURE

The standard of the papers presented on general avicultural subjects was high. Anyone who was present at them all, absorbed an immense amount of valuable information. I was very impressed by Phoebe Green Linden's description of important behavioural stages in hand-reared parrots. Not only does she have an exceptional understanding of the subject, but the gift of conveying this knowledge to others. Everyone who rears parrots or buys a hand-raised bird should absorb this paper.

Note how she cherishes her birds: "We hold our breeding collection in the highest esteem: they are the beloved backbone of our entire enterprise and we value each one as an individual as well as an essential component of our

Andrew Greenwood spoke on his work with the Echo Parakeet on Mauritius.

Branson Richie used an overhead projector to inform his audience about PDD.

Phoebe Green Linden spoke on the psychological needs of hand-reared parrots.

program" and note how well she understands the psychological needs of the young she rears, as well as the practical ones.

If parrots being weaned are too hungry, they will not eat. They respond to "deprivation weaning" (leaving them alone with food) with anxiety, rather than with increased food consumption. If they are too hungry, they cry and whine and may become dehydrated. New foods are always introduced when their crops are full; then they relax and sample them. When hungry, they are too uneasy to concentrate on foods which are difficult for them to manipulate, such as corn on the cob. It may be several months before they master the art of holding food in one foot while perching securely.

How refreshing it was to hear Phoebe say: "We enjoy hand-feeding our birds for as long as possible." This is the mark of a true parrot lover, unlike some breeders who exploit chicks (wean them at a very early age, for example) for the quick dollar.

She mentioned the adolescent stage in their lives, when social needs are more important. At this period they may be inconsistent and unpredictable. Then "the adult human caretaker must remain consistent, loving and in control. Adolescents challenge the flock leader" (ie. the human).

John Stoodley spoke on general care. He described how after years of using outdoor aviaries, he finally constructed a fully insulated building. It was made from 9in (23cm) thick lightweight insulation blocks; the walls were smooth-finished and coated with a masonry emulsion. This prevents black mould forming. Concrete blocks were rejected because they have poor insulation qualities and are prone to condensation.

The concrete floor slopes to a drainage system and has a strong epoxy coating.

Natural light enters through reinforced glass sections that run the length of the building over each row of aviaries. Their elevated angle catches sunshine even on sunny winter days. Ventilation is achieved by opening louvers and by extracting air from the apex of the roof. Sprinklers are activated if the inside temperature exceeds 82°F.

There is no space to report on all the topics covered by speakers. Joanne Abramson presented two papers on macaws, Sally Blanchard gave an excellent talk on feather picking (she will cover this subject in the next issue of *PsittaScene*), Morgan Knox spoke on *Psittacula* Parakeets, Dr Ulysses Seal on multiple generations of captive-bred birds and on co-operative breeding programmes, and I spoke on the importance of parent-reared parrots and on lories.

On the third and final evening an auction was held. As most of the items (all donated) were relatively inexpensive, the bidding came from all quarters. A total of over $18,000 was raised on the auction, and further sums by other means, such as a raffle. Once again important research and conservation projects will benefit. Everyone who helped to run the convention and especially Richard and Luanne Porter, deserve thanks and congratulations.

The Proceedings of the IAS Convention can be obtained from IAS, PO Box 280383, Memphis, TN 38168, USA, fax (01) 901 872 4149, price $30 plus postage. Membership, which includes a subscription to the magazine Caged Bird Hobbyist, costs $25.

WPT Invited to Help with Kakapo

For an organisation interested in the conservation of endangered parrots, no species is more significant than the Kakapo *Strigops habroptilus*. BirdLife International's *'Birds to Watch 2 - The World List of Threatened Birds'* by N.J. Collar, M.J. Crosby and A.J. Stattersfield (Natural History Book Service, 2-3 Wills Road, Totnes, Devon, UK. Tel: 01803 865913. Fax: 01803 865280. £25 inc. postage), gives details of ninety species of parrot. Of these, seventy-nine are 'Endangered' or 'Vulnerable', ten are, 'Critical', but only one is listed as 'Extinct in the Wild'. This is the Kakapo.

We have reported in previous issues of *PsittaScene* on the steady but hard-won progress made by the New Zealand Department of Conservation. The 50 remaining birds have been concentrated on three islands which are kept free of rats, stoats and other predators that had decimated the Kakapo population on the mainland. One bird, rescued from a failed nest on Codfish Island has been reared in captivity, and now lives in a large enclosure on Maud Island. Both Rosemary Low and I have, at different times, had the opportunity of meeting this amazing bird 'Hoki' (Maori for 'I shall return'), and Rosemary's picture on the front page is of her. It's very good news that Hoki is a female, because only 19 of the 50 are females.

The funding for the Kakapo Recovery Programme is provided by a New Zealand aluminium company and the DoC, but we have just received an invitation from Don Merton, Senior Technical Officer of the Kakapo Management Group, for our trustee and veterinary consultant Andrew Greenwood to visit New Zealand in May this year, to advise on various aspects of their work. These will include: 'fine-tuning of the supplementary diet fed to most birds; identifying environmental cues which may trigger breeding in some years; techniques to test fertility in (free-living) males; sperm collection and storage techniques; artificial insemination techniques; monitoring health and minimising disease risks; indicators in establishing age; advice on captive management and hand-rearing techniques etc' Quite a challenge for a 10 to 14 day visit! We believe this invitation demonstrates the progress made by the WPT, and the confidence many organisations have in its expertise. You can read on pages 6 and 7 of this issue Andrew's report on the successful work to build up the numbers of the Echo Parakeet. Let us hope that we can make a similar contribution towards rescuing the Kakapo: a flightless, nocturnal, desperately vulnerable bird which breeds rarely, and in which the female leaves her chicks unattended while she searches for scarce food supplies. Its recovery is the greatest challenge in the parrot conservation world. - MR

Maud Island - home of Hoki and five other Kakapo. *Photo: Rosemary Low*

The Echo Responds - A Partnership between Conservation Biology, Aviculture and Veterinary Science

By A. G. Greenwood MA VetMB MI Biol MRCVS

INTRODUCTION

The island of Mauritius, lying in the western Indian Ocean to the east of Madagascar, is home to some of the most endangered birds in the world. There are nine endemic species, all of which are in tiny populations, some at critical risk of extinction. Many others like the Dodo are long gone. The causes of these severe conservation problems are varied, but include introduced predators, habitat degradation and destruction and heavy pesticide use during the 1960s, all familiar factors on many other isolated islands. Since the early 1970s, ornithologists have recognised the dangers to Mascarene birds and have struggled to pull them back from the brink. Efforts were, and still are, limited by funding and the early work begun by Stanley Temple very much concentrated on the Mauritius Kestrel *(Falco punctatus)*, which is now an internationally famous success story. From there, Carl Jones and his team have progressed to the Pink Pigeon *(Columba mayeri)* and, since 1987, have been doing year round work on the Echo Parakeet *(Psittacula echo)*.

HISTORY

The genus *Psittacula* includes some dozen species of medium-sized green parakeets whose distribution rings the Indian Ocean, from Africa round to the Malay peninsula. The Echo parakeet is the last surviving member of the genus on the islands of the western Indian Ocean; other species or subspecies existed on the Seychelles and the other Mascarene islands, Rodrigues and Reunion, but are all now extinct. The Echo appears to be a strictly arboreal forager, nesting in natural cavities in native trees, and differs from the Rose-ringed Parakeet *(Psittacula krameri)* in its larger and bulkier body shape, shorter wings and tail, and more raucous call.

Reasons for the decline of the Echo are not entirely clear. It was reasonably common in the 19th century, but in the latter part of this century the population declined to about 40 birds by the time rescue work began in the early 1970s, and even further to an estimated 8 to 12 individuals with only 3 females by 1986. Certainly, as with all Mauritian species, habitat loss both from destruction and degradation has been severe. Although there are still reasonable areas of native forest remaining on the higher ground (much of the rest being given over to sugar plantations), much of this is heavily invaded by introduced plants like guava. Consequently production of native fruits and regeneration of potential nest trees is very poor, and the birds suffer from a shortage of food and nest sites. Among introduced predators it is the arboreal species including crab-eating macaques *(Macaca fascicularis)* and black rats *(Rattus rattus)* which affect the parakeet, both by raiding nests and competing for native fruits.

Pesticides, which certainly brought the Mauritius Kestrel close to extinction, do not seem to have played a significant part in the parakeet's decline. The significance of a thriving population of introduced Rose-ringed Parakeets is unclear; they do not appear to compete directly with the Echos but may present a considerable disease risk.

Black River Aviaries

During the 1970s, the Echo received least attention amongst the native birds, simply because dedicated funding and personnel were not available. Nestboxes were put up in the forest but were never used, and several birds were taken into captivity but none survived to breed. Only since the late 1980s, when the kestrel has been effectively saved and the pigeon is well on its way, has more money and effort been directed towards the Echo.

CONSERVATION TECHNIQUES

Stanley Temple coined the term "clinical ornithology" to describe the type of intensive conservation management of wild birds which began with attempts to save falcon populations in North America. A combination of nest site protection and reconstruction, habitat restoration, supplementary feeding, pest control and manipulation of breeding biology has been applied to a number of critically endangered birds across the world, but probably developed to its highest level in Mauritius and New Zealand. Increasingly, in situ captive breeding has become an integral part of these manipulations, both to supplement and ensure wild populations. The very close integration of wild and captive birds which is involved in these programmes has been described by Carl Jones as "captive breeding in the wild".

Habitat management for the Echo is particularly directed at increasing the productivity of native forest, which benefits all endemic species of both plant and animal. The foundation of a major national park of about 4000 hectares of the best surviving forest is a major part of this, but equally important is the direct management of scattered plots of degraded forest by literally weeding out the pest species, often by hand. The response of the forest to this work is remarkably rapid, and Echos and other species are to be found feeding in these managed plots within one or two years. The response in terms of tree regeneration is obviously going to be much more long term, so that some effort to supply artificial nest sites in the meantime will be necessary, especially as the population of parakeets recovers.

Supplementary feeding has been very effective in helping support the restored kestrel populations to rear full clutches, and is easily applied to the Pink Pigeon which takes to bird tables with alacrity. Seasonal food shortages certainly limit the Echos'

Rat in trap

ability to rear chicks, but efforts to get the birds to take supplementary foods have not been very successful. It is hoped that the release of trained captive birds will help to attract the wild birds to feed, and perhaps introduce them to non-native fruits.

A number of known Echo nesting sites have been destroyed by cyclones or have collapsed, and more than one has been successfully restored by field workers. Nestbox provision has not yet been successful, although a number of boxes are now in place where existing holes have been lost. Mynah birds are the main competing species for nest holes.

Predator reduction around nest sites is extremely important. Rats are poisoned extensively up to 200m around nest trees and the success of this operation is monitored by trapping. Expertise imported from New Zealand has been particularly valuable in this area. Feral domestic cats are also ruthlessly exterminated by field workers, but the mongoose *(Herpestes auropunctatus)* and the monkeys are not such a direct threat. Close observation and constant monitoring of every nest throughout the breeding season probably helps to keep these other predators away.

AVICULTURE

Echo Parakeets have been kept at the Black River aviaries, sited on the coast, since the early years although with little success until recently. Up to 1993 20 birds had been kept for the purposes of captive breeding, which derived from 10 chicks and 12 eggs harvested from wild nests, plus one wild caught adult, yet only 3 remained alive by late 1993. The majority had come into captivity and been foster reared under a captive group of Rose-ringed Parakeets since 1987. These birds have proved very successful at hatching and rearing Echos, but 12 of the 15 birds reared during the 1987-93 period had died at 4 to 18 months of age. Previous investigations of causes of death had been inconclusive, but had tended to attribute the considerable fat stores found in Echos to incorrect feeding, leading to an acute change in the diet to very low fat, low protein vegetables and fruit. This was almost certainly a mistake and it is clear that microorganisms which we would now recognise as major problems in parrots were ignored. Investigation of deaths occurring in 1993 showed that they were mainly due to Gram negative infections which could be traced to hygiene problems, particularly with the water supply. Analysis showed that most of the previous deaths had occurred in the April cyclone season (Echos breed late in the year between September and December), when even the mains water supply can become heavily contaminated. Investigation of the problem was approached in exactly the same way as an avicultural site visit, and appeared to pay dividends, as rearing has been very successful since then. The captive aviary population is currently 18 birds, with successful breeding from one pair.

The old aviary site, where remarkable work has been done under fairly primitive conditions, is now being replaced with a purpose built compound which, when completed this spring, will house up to 12 breeding pairs of Echos and have a large 60m flight cage for juvenile birds. Echos are still being reared under Rose-ringed Parakeets, although there was a severe scare in 1993 when several of the foster birds and their own offspring proved serologically positive for polyomavirus. As there was no clear evidence of disease resulting from this infection (archive Echo tissues were submitted to DNA probe investigation with negative results) and the population was at a critical stage, it was decided to continue despite the risk, and subsequent testing has found all the Ringnecks and Echos to be seronegative. Psittacine beak and feather disease testing has also proved consistently negative. This year there has been more emphasis on handrearing Echos using puppets, with the aim of developing a tame flock for early release.

Andrew Greenwood & Carl Jones

UPDATE FROM MAURITIUS

In December, Kirsty Swinnerton and Carl Jones reported as follows:

It is the middle of our field season and our birds and bats are all breeding. We are busy hand-rearing Echo Parrakeets, which are very demanding. At last we have started to make headway with this species. It has increased from about a dozen in the early 1980's to about 30 birds in the wild today. There are seven pairs and although some failed to breed, four young are doing well. In captivity we have 8 adults and 9 chicks, 4 of which are being hand-reared. This raises great hopes that we will be able to start releasing captive-bred birds within a year or so.

At the end of 1995, an extension to our breeding centre in Black River was built. The new compound will be twice the size of the present one and will hold more than 30 aviaries. Half of these will be built especially for the Echo Parakeet. The work will be completed in February.

On another subject, our greatest success to date has been with the Mauritius Kestrel. After 20 years of hard work, we have restored the population from 4 known birds to about 100 pairs in the wild. This recovery is beyond our wildest dreams. One pair visit our garden every day, where we feed them.

Editors note: The Kestrel and the Echo Parakeet are indeed fortunate to have a saviour in the name of Carl Jones. It is his dedication and continuity which have resulted in these success stories.

VETERINARY MONITORING

As well as regular disease monitoring and screening of the captive population, considerable effort is being put into the wild birds. Parasites and diseases that have been known to be a problem in the past have been tackled in various ways, one example being the addition of 5% carbaryl dust to nest material in wild nests to prevent tropical nest fly attack, and another the trial of an antifungal treatment of the substrate to prevent aspergillosis. Every known nest is monitored daily by the field teams, who weigh every wild chick every day until fledging and pull chicks if there is the slightest sign of weight loss or growth check. This monitoring also allows their health to be checked, and every accessible wild chick has been blood sampled for PBFD. The expertise of the field workers even extends to trapping the adults on the nests, which are systematically being sampled and tested for blood parasites, PBFD, polyoma, herpes and paramyxoviruses, as well as for DNA fingerprinting. Faecal samples are also collected opportunistically. Fortunately, like many island birds, the Echo parakeet is a very tame and forgiving bird, and the adults seem to support all this interference very phlegmatically. There have been no instances of nest desertion attributable to manipulation. It is hoped to extend disease monitoring to the feral Ringnecks as well, when manpower is available to catch them. They may represent a potential disease reservoir should the Echo population increase sufficiently to come into closer contact with them, and there have been reports of Ringnecks with feather abnormalities in the wild.

THE FUTURE

The Echo Parakeet population now stands at about 40 to 50 birds in total, with seven known wild breeding pairs and some other possibles. There is still a preponderance of males but fortunately there are some surplus captive females. During 1995, a trial release of hand tame Ringnecks was carried out in one area of the forest, with a view to attempting the same with handreared Echos, possibly as early as this autumn. The urgency is to try to augment the wild males with females and also to use the tame birds as a lure to attract and teach the wild flock to use supplementary feed and artificial nest sites. Radiotracking and other standard ornithological techniques will be used to monitor their progress.

A combination of outstanding conservation fieldwork with standard avicultural and veterinary techniques has served to haul the diminutive Echo Parakeet back from the brink of extinction. There is clearly a long way to go, with many pitfalls which are only all too familiar to aviculturists, but we can reasonably hope that, with the continuing support of the parrot community, the Echo will join the kestrel and the Pink Pigeon as another of Mauritius' astounding conservation success stories.

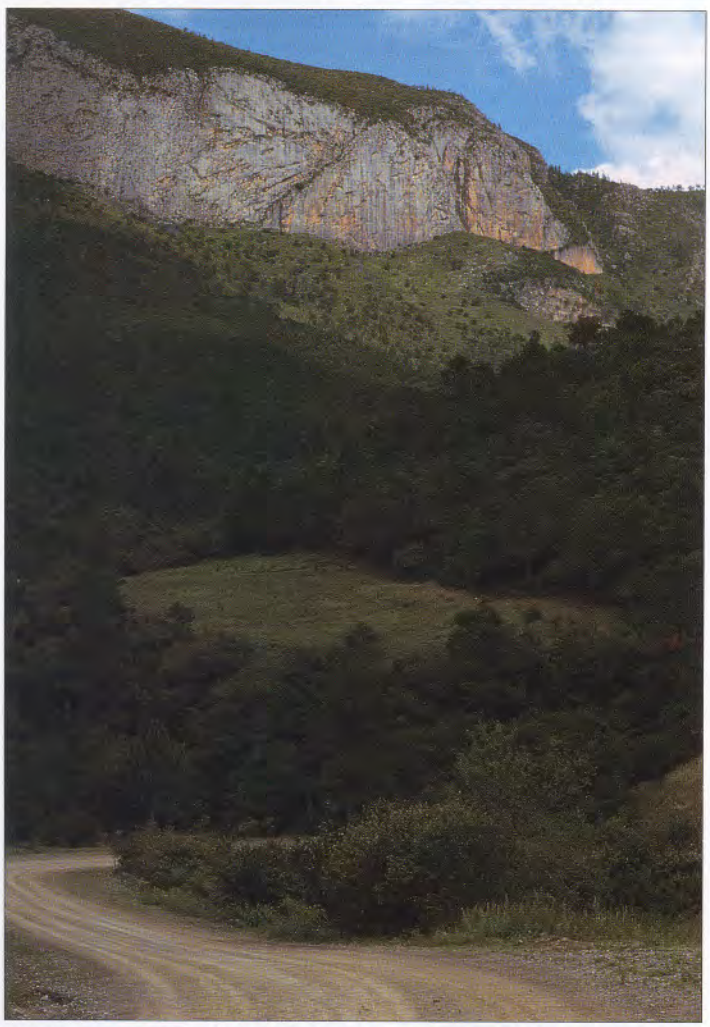
This report was presented at the IAS Conference in January 1996.

New Parrot Preserve in Mexico

By Noel Snyder and Ernesto Enkerlin

In August 1995, purchase was completed of a reserve crucial for the welfare of the Maroon-fronted Parrot *(Rhynchopsitta terrisi)*, a most significant achievement in Mexican wildlife conservation. Christened the El Taray Sanctuary, this new preserve is located near the cities of Monterrey and Saltillo and includes some 360 hectares of pine-forested mountainous terrain. Most importantly, it also encompasses the Maroon-fronted Parrots major known nesting cliff, a spectacular limestone escarpment, honeycombed with solution holes. Census work in 1995 documented approximately 100 pairs using the cliff, roughly a quarter of the total nesting pairs presently known for the species. Primary goals of the new preserve will be habitat protection, education, research, and ecotourism.

The El Taray Sanctuary represents one of the first fruits of an international effort to study and conserve wild populations of both the Maroon-fronted Parrot and its sister species, the Thick-billed Parrot *(Rhynchopsitta pachyrhyncha)* of western Mexico. Co-operating in this program are a number of private and governmental organisations, both north and south of the US-Mexico border, most notably Wildlife Preservation Trust International, Monterrey Institute of Technology and Advanced Studies (Monterrey Tech), the University of Chihuahua, the Arizona Game and Fish Department, the US Fish and Wildlife Service, the Zoological Society of San Diego. SEDESOL, PROFAUNA, DUMAC, and the Museo de las Aves of Saltillo. Acquisition and future management of the sanctuary was made possible by financial contributions to the program from CONABIO (the Mexican Committee on Biodiversity), the US State Department, the US Fish and Wildlife Service, and the Zoological Society of San Diego. Title to the lands involved is held by CONABIO, but administration of the reserve will be a responsibility of the Museo de las Aves.



The El Taray nest cliff of the Maroon-fronted Parrot has hosted the largest and most consistently-active nesting colony in recent years. Surrounding vegetation is largely Mexican pinon (Pinus cembroides). *Photo by Noel Snyder.*

The Maroon-fronted Parrot had one of the smallest ranges of any continental parrot species, occurring only in a 200-mile long stretch of the Sierra Madre Oriental of Mexico. Until recently, information on the species was limited largely to reports published by Dirk Lanning and Peter Lawson on studies they performed in the late 1970s. These workers documented many of the basic features on the species' biology, and estimated a total population of only two to four thousand individuals - which still serves as the best estimate of total numbers for the species.

Like the Thick-billed Parrot, the Maroon-fronted Parrot depends primarily on pine cones for food, and lives primarily at high elevations. Both species are well adapted to cold weather, often roosting at elevations above 8,000 ft. and foraging in snowy terrain. Both are also highly social species, often gathering in flocks of hundreds of individuals and cruising long distances in characteristic v-formations. However, unlike the Thick-billed Parrot, the Maroon-fronted Parrot nests exclusively in potholes and cracks of limestone cliffs, often in large colonies. The Thick-billed Parrot nests only in tree cavities, so far as is presently known, and its nesting pattern is much more dispersed. Both species exhibit at least some degree of seasonal north-south migration in their respective ranges, the Sierra Madre Occidental and Sierra Madre Oriental.

Studies of the Maroon-fronted Parrot in the past two years have revealed a very concentrated breeding range. The 24 colonies identified to date all lie within a region only about 60 miles long, and all are within practical flying range of high elevation forest with a good variety of conifer species. The Maroon-fronted Parrots based at the El Taray Sanctuary have access to nearby La Viga peak, which at 12,306 ft. is the highest mountain in the northern Sierra Madre Oriental and possesses an especially diverse conifer flora. Species of special importance to Maroon-fronted Parrots include *Pinus strobiformis* (south-western white pine), *Pinus montezumae, Pinus greggii,* and a number of unique pinons, including *Pinus cembroides* and *Pinus culminicola.* The last-named species occurs only at very high elevations and is characterised by a bush-like growth form that does not commonly exceed 6 or 7 ft. in height. Other foods taken include acorns of various oaks and weeds and fruitlets of agave plants. During the non-breeding season, the Maroon-fronted Parrot, like many other bird species, also feeds on flowers of agave.

A pine-cone diet has led to a number of unusual aspects in the biology of both the Maroon-fronted and the Thick-billed Parrots. Presumably to take advantage of the peak fruiting season of pines in the fall, both parrots commonly do not commence nesting until July, and generally do not fledge young until October and November, nearly 5 months out of phase with most other breeding birds of the region. Both species are also unusually strong fliers for parrots, a characteristic that may trace in part to the notoriously erratic cone-production of pine trees which often means the birds must commute long distances from nests to find good food supplies. Radioed Thick-billed Parrots we studied in 1989 commonly flew 12 miles and sometimes further between nests and foraging areas, and made this trip several times daily.

Another biological characteristic that appears to relate to pine-cone feeding is an extremely long dependency period of young on adults after fledging. The process of opening cones to remove seeds is a complex one, and it takes youngsters several months to become proficient in this task. Meanwhile their parents provide a dependable subsidy of regurgitated food. One of the more subtle aspects of learning to feed on cones is development of a capacity to use the bill to clip cones from branches without simultaneously dropping the cones to the ground.

Much of the biology of the Maroon-fronted and the Thick-

Nest holes of the Maroon-fronted Parrot are solution holes in limestone escarpments, almost always in overhung faces. Young do not usually fledge until late October and early November. *Photo by Noel Snyder.*

billed Parrots also appears to be explicable as a response to predation pressures. Their highly social tendencies and strong flight capacities may have been produced in part by the threats represented by avian enemies such as Peregrine Falcons, Goshawks, and Red-tailed Hawks. A foraging *Rynchopsitta* flock characteristically begins feeding near the top of a tree and usually does not descend more than partway before flying to another tree, a foraging strategy that ensures a continuos clear view of the surroundings. Feeding flocks also commonly post sentries, and it is difficult for raptors to approach unseen when there are multiple eyes and ears oriented in various directions capable of detecting their presence. Once alarmed, the response of a flock is to take to the air and circle up into the sky in a tight formation that raptors do not even bother to chase.

For their part, raptors normally are obliged to rely heavily on surprise and concealment in stalking *Rhynchopsittas.* We have sometimes seen them approaching flocks of these birds from straight out of the sun, but even this tactic is usually detected by the birds in plenty of time for escape. Though it is common to see attacks on the birds by raptors, successful captures are rare.

The most flamboyant avian threat for the Maroon-fronted Parrot is the Peregrine Falcon, which nests on many of the same cliffs used by the parrots for breeding, although not at the same time of year. We have witnessed a number of tremendous chases of Maroon-fronted Parrots. In level flight, Maroon-fronted Parrots appear fully the equal of a Peregrine in speed and manoeuvrability, and in fact exhibit a very similar silhouette.

Other natural enemies faced by the Maroon-fronted Parrots include Ring-tailed Cats and Coati-mundis, which represent threats to nests in more accessible cliffs. We once watched a Coati scaling the base of the El Taray cliff toward the lowest of its nest holes. The whole Maroon-fronted colony was soon in the air, protesting in alarm, and the Coati returned to the ground, apparently unsuccessful in his quest. However, when we soon thereafter roped to the hole in question, we found it empty, and wonder if the Coati seen earlier was actually revisiting a site he had previously emptied of its contents. Coatis commonly cruise along the base of the El Taray Cliffs, possibly in a search for youngsters that have fallen from their nests.

One of the most exciting recent discoveries in the Maroon-fronted Parrot program has been confirmation of the existence of two clay licks where the birds come regularly to eat earth. These clay licks are physically very similar to the mud cliffs used by many macaw species of the Amazon basin, and like those cliffs, appear to have long histories of use by the birds. The function of soil-feeding had been widely debated and may relate to a need for trace mineral nutrients or to a need for clay-detoxification of harmful chemicals in the diet.

The Maroon-fronted Parrots also congregate at favoured drinking sites - especially springs on the faces of limestone cliffs. During dry periods, major fractions of the population assemble daily at a few favoured sites that provide impressive spectacles of massed activity. Both Maroon-fronted and Thick-billed Parrots rarely drink from streams in valley bottoms, presumably because of the high risk of predation in such confined quarters.

A number of recent single-location counts of the Maroon-fronted Parrots have yielded substantial totals of birds. On October 19, 1994 we sighted a series of flocks totalling some 1400 birds around the El Taray cliffs, and on the following day we documented an identical total leaving a roost on the slopes of La Viga, about two miles distant. These counts are a near match to the high single-location counts of the 1970s reported by Lanning and Lawson (1400 and 1600 individuals), and in themselves give grounds for hope that the population has been reasonably stable. Comparisons of occupancy of nesting colonies known active both in the 1970s and in recent years also allow some optimism that the species has been holding its own. However, until all colonies are located and censused over a substantial number of years, such conclusions as to population stability are only tentative.

The primary threats to the Maroon-fronted Parrot include man-caused habitat changes, especially those resulting from fire. A number of substantial patches, of pine forest have burned over recent decades, and unlike the pine forests in many other regions, these forests have shown very poor regeneration from such stress, probably because of the very thin rocky soils and relatively low rainfall in the region. Many of these burned areas have now become regions of scrubby hardwoods with little value for parrots. In the past, many of the valley bottoms have also been lost to cultivation, especially of apples, although the potential for expansion of agriculture is topographically limited and the future of the local apple industry is now in doubt with the advent of the North American Free Trade Agreement. The amount of timbering in the area has remained modest and does not represent a major stress in the near term, as many of the forests are on exceeding steep slopes and ridges that are impractical to cut. However, forest degradation to cutting is continuing to occur, and quantification of the impacts of this process is one of the objectives of the conservation program.

Fortunately, the Maroon-fronted Parrot has not traditionally been subject to frequent capture for the bird trade or to much hunting, and one can only hope that this may remain the case, especially if widespread education activities are soon implemented. The species is not a pest of any crops, so it does not threaten any know economic interests. These factors are all presently favourable for the species' conservation, and we see no evidence that crisis-techniques are needed to ensure its existence. Thus we do not perceive any conservation need for captive breeding of the species in the near term. We question how successfully captive-bred individuals of this species might be reintroduced to the wild in any event, judging from the difficulties that have been experienced in achieving survival of released captive-bred Thick-billed Parrots.

The major goals envisioned by the present research-conservation program include a thorough documentation of biological characteristics of the species; protection of major feeding, nesting, drinking, and roosting areas; and initiation of a major education program of local residents, especially through the Museo de las Aves in Saltillo. The ecotourism potentials of the region are substantial, and if the local residents can come to enjoy an economic reason for protecting the birds, the long term conservation of the species may be assured. To aid in achieving these goals a conservation steering committee of local and international experts and authorities has been assembled, and several graduate students are conducting research on the various aspects of the species' biology at Monterrey Institute ofTechnology and Advanced Studies

The Parrots of the Mascarenes

By Julian Pender Hume

The Mascarenes consist of 3 volcanic islands lying in the vastness of the Indian Ocean between 400 and 500 miles east of Madagascar. Reunion Island is the largest and most mountainous, younger in geographical years than Mauritius, the middle island of the group which is far less steep and offers a much more lowland habitat. Rodrigues island is the smallest and most remote.

Early accounts speak of a 'virtual paradise' awaiting tired and hungry sailors and explorers. It is on the writings and accounts of these men that our knowledge of the original avifauna is based.

The most famous inhabitant of the islands was the Dodo and probably more has been written about this bird than any other. Yet still practically nothing is known of its habits in life. Fortunately, complete skeletons and some mummified remains have survived enabling us to make a reasonably close reconstruction.

The same cannot be said of the original parrot fauna. The earliest accounts from Dutch, French and English travellers, give an impression of great flocks of parrots of different species, so tame as to be caught by hand and all ultimately ending up in the pot! With a bias of 'good to eat or not' descriptions of these parrot species were not mentioned in any detail, their presence documented only by observers making a meal from one or more of them.

From such accounts many species have been named by recent authors (Rothschild, Milne-Edwards) sometimes ignoring possible plumage/size variations between sexes and young/old

Psittacula eques.

Psittacula exsul (male and female blue morph).

birds. The exact number of species will now never be known but some conclusions can be made from the osseous remains and some of the more detailed descriptions.

The popularity of parrots as cage birds and pets has been known and appreciated for centuries. Where man has settled around the world inevitably his pets arrive with him. Escaped or released psittacines on a tropical island would attract the attention of future visitors. If they were untrained in natural history as was often the case, they would not know an introduced exotic parrot from an endemic one so great caution must be taken with early accounts and interpretations. To date, 7 species are definitely known to have once inhabited the islands and only one of these, the Echo Parakeet, *Psittacula echo*, has survived to the present day, albeit in critically low numbers.

To this list only one species, possibly two, can be added with any confidence. On Reunion Island, a grey parakeet was mentioned (Dubois 1674) who also saw a species as "being the same as the green one (ring-necked parakeet) but with red head, wings and tail." As his descriptions of other birds have proved valid, there is no reason to doubt his parrot observations. As a grey parakeet *L. bensoni*, also existed on Mauritius and no difference was noted between the two island populations (Cossigny 1764), it is quite feasible that they were the same species. Of the green and red bird nothing more is known.

What is known about the original parrots of the Mascarenes is extremely meagre. The few words written can only be approximately correlated to the bone remains so far found. A few bones referable to *Mascarinus mascarinus* are the only parrot remains so far found on Reunion.

On Mauritius, huge jaw bones were found of a parrot comparable

List of species known by specimens/osseous remains:

MAURITIUS		
Lophopsittacus mauritianus	Broad-billed Parrot	*Extinct 1680
Lophopsittacus bensoni		*Extinct 1764
Psittacula echo	Echo Parakeet	
REUNION		
Mascarinus mascarinus	Reunion Parrot	Extinct 1834
Psittacula eques	Reunion Ring-necked parakeet	*Extinct 1734
RODRIGUES		
Necropsittacus rodericanus		*Extinct 1761
Psittacula exsul Rodrigues	Ring-necked parakeet	Extinct 1875

* approximate dates of extinction

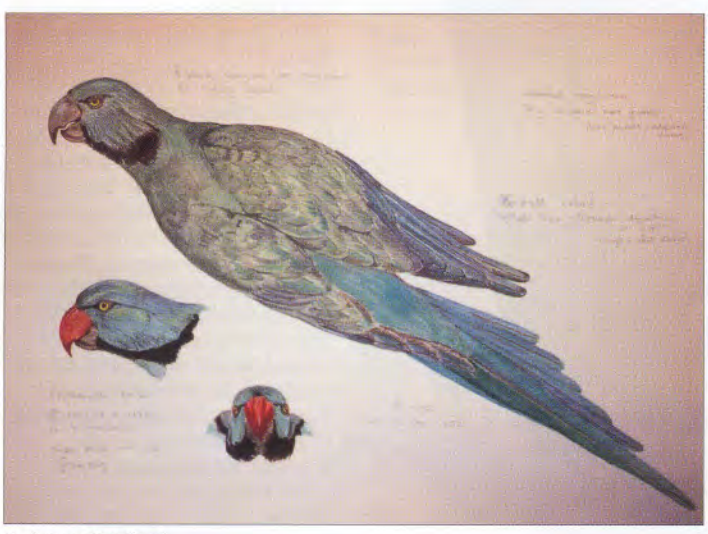
in size to a macaw. A very large parrot was mentioned by the first explorers and depicted. It must have been the Broad-billed Parrot to which they refer. Other features can be assumed. The bill, although large, was apparently of a weak structure, possibly suitable only for a diet of fruit (Holyoak, 1971). The wings and legs were shorter in ratio to the head size compared with a macaw but it was certainly not flightless. The series of mandibles available for study of this species have a distinct large/small ratio indicating one of the sexes was smaller. The colour is debatable, but it can be deduced from two early descriptions (Hoffman 1680, Van Neck's plate from Strickland 1848), that it was at least bi-coloured, predominantly brown and/or grey with a blue head. It also had a distinct crest confirmed by early sketches and the discovery of a skull. Such a spectacular bird, tame and confiding, would have made easy pickings for hungry seamen and did not survive long. It was not mentioned again after 1680.

Another large, big-headed parrot, *Necropsittacus rodericanus*, survived until the 1750's on Rodrigues Island. Two very important observers of the original birdlife were marooned there in the late 1690's and early 1700's. Leguatt (1708) and Tafforet (c. 1726), whilst both so curtailed, gave the only accounts of the parrots in life. *N rodericanus* was described as an all green bird with a large head and long tail. Leguat recorded as early as 1697 "they keep to the islets to the south of the island, as to avoid the persecution of rats". This may give at least one reason for the parrot extinctions on Rodrigues.

The Mascarenes were also inhabited by smaller parrot species, and these were found in great numbers. The genus *Psittacula*, the Ring-necked Parakeets, colonised each island from the African mainland and developed into at least two distinct species.

Reunion Parrot.

The grey parakeet *L. bensoni*, possibly inhabited Mauritius and Reunion and formed mixed flocks with the Ringnecks. They were much sought after for food and were singled out as being the preferred game (Dubois 1674). The Reunion Parrot, *Mascarinus mascarinus*, was long extinct on its island home when the last of the species, a captive bird, died in the King of Bavaria's menagerie in 1834.



Rodrigues Parakeet.

All of this group of medium-sized parrots were wiped out on Reunion by the 1770's, Rodrigues by the 1870's and on Mauritius, by the 1760's, bar one.

The Echo Parakeet is the only survivor of all the original parrot species. Its numbers continued to decrease from the 1750's when it was said to "be abundant" (La Motte) until the present day when, in the 1970's just 11 birds were counted. A major effort by the WPT, Mauritian Government and the Jersey Wildlife Preservation Society under the guidance of Carl Jones in Mauritius, have managed to halt the decline with successes in captive breeding. They are still very rare and have a host of competition pressures from introduced species and serious degradation of habitat to contend with.

One can only wonder at the sight that would have greeted the first explorers as they rowed ashore and first set foot on the islands. Tall forests rich in unique and strange plants stretched as far inland as the eye could see, broken only by the clear running water of streams meandering down from the valleys. Giant tortoises were in such abundance as to cover the ground as if it had been paved. Fruit bats roosted in huge colonies, and birds of all descriptions, filling every available niche and all totally fearless, formed great flocks throughout the forests. Many flightless and seasonally flightless species abounded and would literally wander up to the visiting travellers to inspect the new phenomena.

This paradise was totally destroyed within a very short time. A woodcut in the journal of William van West-Zanen depicts the result of man's answer to his early encounters with the Mascarene fauna. A landing party come ashore and club dozens of parrots to death for food!

Today, most of the endemic birds are extinct. The forests have been felled and monkeys, pigs, deer and goats make sure no regeneration takes place. Efforts have now been made to conserve what is left, and the success in saving the Pink Pigeon and Mauritius Kestrel from the brink of extinction reflects this trend. How the Echo Parakeet has survived when all the other Mascarene parrot species have now disappeared is one of nature's great mysteries. No time or energy should be spared in saving what is now the last parrot of the Mascarene Islands.

ACTION PAGES

PARROTHABITAT
Save it for the parrots, save it for us all

Amongst its aims The World Parrot Trust has always included 'action to protect and preserve the natural habitats of parrots'. Apart from our longterm programme in NE Brazil to create new plantings of the palm trees on which Lear's Macaw relies, we have not found the funds needed to pursue this aim. Our four 'Parrot Buses' in the Caribbean and Paraguay educate people on the need to take care of the environment for the benefit of all species, so we could claim to be achieving some progress with our habitat preservation aim, even if a little indirectly.

When conservationists speak of preserving habitat, they are usually thinking of the purchase of large and ecologically important areas of pristine rainforest, cloud forest or critical wetlands. Techniques employed by our WPT-USA trustee Charlie Munn in Peru include arranging for indigenous Indian groups to win legal title to vast areas of forest, which they then protect ferociously from the incursions of trappers, loggers, miners and other potential despoilers. Part of this plan includes the introduction of carefully controlled eco-tourism ventures, the profits from which go to the local people, not outsiders. This leads to an understanding that there is more money in preserving unspoiled places than there is in destroying them for short-term gain. And if the forest survives, that's one less major threat to parrot survival.

We don't have the financial clout to buy large areas of forest. There are organisations that specialise in this admirable activity, notably the Nature Conservancy based in the US, and the WWF. They can deploy big money, much of it drawn from UN and other international and national funds. Anyone interested in parrot conservation must applaud their activity, much of which is bound to be helpful to parrot populations.

What we feel we CAN do, is find 'niche' situations which directly affect parrots, where a little financial encouragement may generate other funding from local or other international sources. This has happened in the case of our help for an endangered population of the Red-tailed Black Cockatoo in South Australia and Victoria, where both States added funds to ours.

You should find a leaflet in this issue of *PsittaScene* which explains the concept and gives an outline of three projects we would like to help, in Peru, Brazil and Mexico. In this issue you will find an article by Dr Noel Snyder of Wildlife Preservation Trust International, which describes their purchase of a key nesting area of the Maroon-fronted Parrot in Mexico. Funds are urgently needed to help provide guards and facilities at this site and we would like the World Parrot Trust to contribute towards this.

The leaflet offers three ways to help; first, by making a donation to our new fund, second, by joining WPT (if you're not already a member), and third, by buying the stunning new T-shirts. These feature a painting donated to us by Cyd Riley of Firefly Studios. Cyd also designed the PARROTHABITAT leaflet and has been very generous in her help for the trust. The only way to thank her is by ordering 4000 of the new shirts, to equal the sales of the previous 'Endangered Parrots' shirt. Which, by the way, is still available.

THEFT OF HYACINTH MACAWS

On 29th November 1995 a pair of Hyacinth Macaws was stolen from Rode Bird Garden near Bath, UK. One of the pair was on breeding loan from Paradise Park. At the time of going to press the birds have not been recovered. The pair are both microchipped, thus making the pair easy to identify. A substantial reward has been offered for the recovery of the birds and the conviction of the thieves. If any reader is aware of a pair of Hyacinth Macaws of unknown origin, please contact either Mike Curzon at Rode (01373 830326) or David Woolcock at Paradise Park (01736 753365)

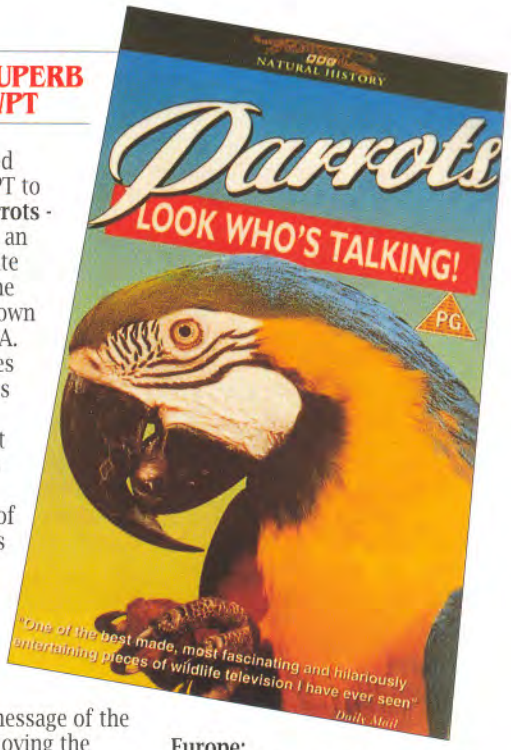
EXCLUSIVE WORLD PARROT TRUST WHEEL COVERS

We've just received 20 of these great looking wheel covers for the Land Rover Discovery, and they're for sale at £25 each, plus £5 for post and packing. (Or equivalent funds in other currencies).

The wheel covers were a gift to the Trust from Ken Slavin of K. and J. Slavin, Cow Pasture Farm, Louth Road, Hainton, Lincolnshire, LN3 6LX.. Ken is one of our most generous and creative supporters, full of good ideas for fund-raising, and sound advice on rugged vehicles for parrot field work.

We will hope to sell all of these wheel covers and raise a clear £500 to send to our newest branch, World Parrot Trust Africa. Several interesting new initiatives are under way there, and we'll have a report on progress in the next issue of *PsittaScene*.

ORDER THIS SUPERB VIDEO FROM WPT



We have now finalised arrangements for WPT to supply copies of **'Parrots - look who's talking!'**, an outstanding 45 minute video produced by the BBC, and recently shown in the UK and the USA.

This film combines footage of pet parrots talking, singing and playing, with the best shots of wild parrots we have ever seen. The shots of a flock of Gang-gang Cockatoos feeding, and Hyacinth Macaws in flight, are quite unforgettable. WPT supplied some input for the script, and the underlying message of the film is that, while enjoying the parrots as companions, we all need to take care that the parrots will continue to exist in the wild.

Wherever parrot people gather, this film will be a delight. We can supply the PAL version for Europe (except France), and the NTSC version for the USA and Canada.

Please order as follows:-

Europe:
from Vicki Woolcock, WPT - UK, Glanmor House, Hayle, Cornwall TR27 4HY. Send £15 plus£3 for post and packing.

USA & Canada:
from Cynthia Webb, WPT - USA, PO Box 341141, Memphis TN 38184. Send US$25 plusUS$5 for post and packing.

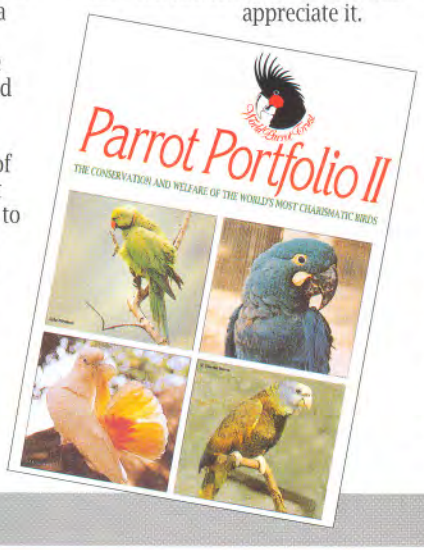
PARROT PORTFOLIO II

In this issue of *PsittaScene* you should find inserted a copy of our new 'Parrot Portfolio II'. This is an update on the first version, which has been in use for almost eighteen months. We decided that the additional expense of colour printing was justified by the resulting extra impact our beautiful parrots can make on people, hopefully with the result that they will decide to join us and help fund our work to save these fabulous birds.

The paragraphs at the top of the centre pages are intended to be a brief account of the history, objectives and philosophy of the World Parrot Trust, and we would be happy for this copy to be reproduced elsewhere.

The short accounts of some of our current and more prominent projects will hopefully be useful to newcomers to the Trust, but we must emphasise that it is by no means a complete list. We have on-going interests and commitments in many other countries, for example, in Paraguay, Indonesia, Ecuador, South Africa, and New Zealand.

We intend to use this Portfolio for the next year or so, with occasional amendments as we re-print, and we are willing to supply quantities for insertion in other publications that may be appropriate. If bird club secretaries would like copies for their members, please let us know. Also, if any member can arrange distribution that might result in our acquiring new members or funding, we'd like to hear about it. We think it likely that everyone receiving this newsletter will be able to hand on the Portfolio to someone who will appreciate it.



WORLD PARROT TRUST BENELUX - 11TH PARROT SYMPOSIUM

This established annual event will take place this year on Sunday 21st April at the Beekse Bergen Safari Park, Hilvarenbeck, Netherlands. The theme will be 'Asia', and speakers will include: Antonio de Dios from Birds International, the Philippines.

Friedrich Janeczek, also from Birds International.

Steffen Patzwahl from Parc Paradisio, Belgium.

Mr. Van Tilburgh, from Ministry of Agriculture and Fisheries, Belgium.

Jos Hubers, Lory breeder, Holland.

David Woolcock, Curator, Paradise Park, United Kingdom.

This symposium is always a well organised and enjoyable event, with much to offer to serious parrot breeders. Many delegates come from other countries, and this year we would especially invite visitors from our European support groups in France, Germany, Italy, Scandinavia, Switzerland and the United Kingdom. The World Parrot Trust is steadily expanding its membership and activities and this Symposium presents an excellent opportunity for our supporters to get together. A report will be given on the current work of the Trust.

The participation fee will be Dfl 150 and this includes coffee, lunch, syllabus, safari trip, evening buffet. Without the buffet the cost is Dfl 65 per person. Cash is preferred in the case of foreign visitors.

For more information please contact:-
BELGIUM: Romain Bejstrup, Tel:32 3 2526773

NETHERLANDS: Ruud Vonk, Tel: 31 168 472715 or Fax: 31 15 2782440/2785602

PARROT EXHIBITION

The Tryon & Swann Gallery Ltd. announce an Exhibition of Decorative Bird pictures, with parrots as the subject. Artists include David Johnston and Eric Peake and many other well known artists in that field. April 17th to 26th at 23-24 Cork Street, London W1X 1HB.

INTERNATIONAL NEWS-
Two leading Aviculturists Guilty of Smuggling

As *PsittaScene* was going to press, news came in of the conviction of two prominent aviculturists, one in the US, the other in Britain.

After a lengthy investigation and extended 'plea bargaining' with the authorities in Chicago, Tony Silva, 38, pleaded guilty to conspiracy to violate wildlife and customs laws and filing a false tax return. He will be sentenced on April 26, and faces up to eight years imprisonment and substantial fines. Silva has authored several books on parrots, and lectured extensively. He was also curator at Loro Parque in the Canaries for two and a half years.

In Britain, retired vet Alan Griffiths, 68, was sentenced in January to eight months in jail, and was ordered to repay £29000 plus £2500 prosecution costs.

These convictions have to be recognised as a blow to the reputation of psittacine aviculture, and illustrate the temptations that exist when a hobby involves birds of high financial value. The determination of the authorities to stamp out these crimes is very clear, and the severity of the sentences will hopefully act as a deterrent to further adventures of this kind.

There follows an edited press release from the US Dept. of Justice regarding Tony Silva, and a summary of UK press reports on the Alan Griffiths case.

CHICAGO - JAMES E BURNS, United States Attorney for the Northern District of Illinois, announced that TONY SILVA, 38, an internationally prominent Chicago area writer and lecturer on the plight of endangered parrots in the wild, pleaded guilty today in U.S. District Court to conspiracy to violate wildlife and customs laws and filing a false income tax return. Silva admitted his role in a far-reaching conspiracy involving his mother, GILA DAOUD,

Tony Silva

63, and others to violate the Lacey Act and U.S. Customs requirements between 1986 and 1991 by smuggling or attempting to smuggle various highly protected species of birds trapped in the wild in South America, including a substantial number of Hyacinth Macaws, into the United States.

SENTENCING IN APRIL

Silva faces a maximum term of imprisonment of eight years on the conspiracy and tax charges, and a maximum fine of $500,000. U.S. District Judge Elaine Buckle set a two-day sentencing hearing for March 6-7, and set sentencing at 2.45 p.m. on April 26.

The Hyacinth Macaw, native to Brazil has become quite rare outside of captivity, with its wild population thought to number between 2,000 and 5,000. The Hyacinth Macaw has been a highly sought-after species by bird collectors. Individual birds have typically sold for between $5,000 and $12,000. The Hyacinth Macaws' rarity and precarious status in the wild has accorded it the highest level of protection provided under the Convention on International Trade in Endangered Species of Wild Fauna and Flora ("CITES").

TRIED TO SMUGGLE HYACINTHS

In the plea agreement filed with the court, Silva admitted that in 1989 he purchased a "substantial number" of wild-caught Hyacinth Macaws from co-defendant GISELA CASERES and paid her to hold them in Paraguay while scheming with another co-defendant, HECTOR UGALDE, to smuggle them into the United States.

Silva also admitted to being involved as early as 1986 in successful efforts to smuggle highly protected species of birds including Golden Conures, Vinaceous Amazons, Crimson-bellied Conures, Yellow-shouldered Amazons, Blue-throated Conures and other Hyacinth Macaws out of South America into the United States. Silva also stipulated that he wilfully obstructed the government's investigation into his wildlife and tax crimes.

Also today, Daoud pleaded guilty to one felony count of assisting Silva in the filing of his false 1988 income tax return. Daoud faces a maximum term of imprisonment of three years and a maximum fine of $200,000.

Ugalde, from near Miami, pleaded guilty to conspiracy in January 1995 for his role in smuggling the group of Hyacinth Macaws into the United States. Ugalde has co-operated with the government's investigation and awaits sentencing.

MANY MACAWS DIED

The government has alleged that not only were birds smuggled and sold for profit, but that many Hyacinth Macaws died shortly after being shipped from South America to the United States as a consequence of being trapped and secretly shipped.

Silva is the author of several books on the subject of birds including a Monograph of Endangered Parrots, published in 1989, in which he described the Hyacinth Macaw as "being worth its weight in gold". He has also written: "Unless all of the pressures (including illegal trade) are brought under control, this species may be unable to survive in the world to greet the 21st century".

Silva, Daoud and Ugalde have been arrested and prosecuted as part of the Department of Justice's and U.S. Fish and Wildlife Service's ("FWS") nation-wide crackdown on wildlife smuggling. As part of this investigation, the FWS's Special Operations Branch HQ which specialises in complex investigations of wildlife criminals taped over 100 conversations between Silva or Daoud and a co-operating witness, many of which concern the smuggling.

Illegal international wildlife smuggling is estimated to be a $5 billion annual industry, generating more profit than illegal arms sales and second only to the world-wide drug trade.

DISGRACEFUL ACTIVITY

U.S. Attorney Burns said: 'It is disgraceful that Mr Silva, who obviously understands the value of these rare birds, had engaged in activity that proved directly fatal to many Hyacinth Macaws and other highly endangered species that were smuggled illegally. It is unconscionable that a person of Mr Silva's stature in the avicultural community would contribute, ultimately, to the illicit process that threatens these exquisite creatures with extinction. We hope that others who might consider committing such crimes understand that we will not allow them to profit personally at the expense of such precious resources'.

Alan Griffiths
Photo: Ron Oxley. Reproduced by kind permission of Cage & Aviary Birds

Lois J Schiffer, Assistant Attorney General, said: "The defendants were involved in nothing less that plundering the national treasures of other countries. These crimes threaten not only our ability but that of the international community to protect endangered species and global bio-diversity. We are deeply committed to prosecuting these cases".

EIGHT MONTHS SENTENCE FOR ALAN GRIFFITHS

Retired Welsh vet Alan Griffiths has been jailed for eight months for conspiring to import protected birds eggs into Britain.

He organised "couriers" to bring eggs out of Australia hidden in special bras, underpants and vests.

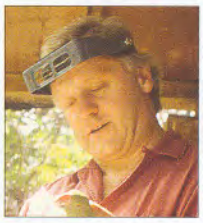
Griffiths, aged 68, of Llandyssul, Dyfed, was said to have recruited Terrence Owen, a taxi driver, his son and two daughters and another man to take part in the operation.

The venture was, however, thwarted when Christopher Owen (29) was stopped by customs officials at Perth airport as he waited for a return flight to Britain. On him they found 29 eggs which, as birds, had a potential value of £100,000. The eggs had been sewn into his vest. Griffiths and his accomplices appeared at Swansea Crown Court in January for sentencing after admitting conspiring to import the eggs of protected birds. Griffiths had made at least £54,000 from the sale of birds which hatched from illegally imported eggs the court was told.

Trefor Davies, representing Griffiths, said he had an unblemished character. It was his obsession with birds that had led to the offence. Judge Tom Lewis-Bowen ordered the confiscation of £29,000 from Griffiths and awarded £2,500 prosecution costs against him. Owen was jailed for two months. Christopher Owen had already served a six-month sentence in Perth.

YOU CAN HELP US...

Charles A Munn III PhD
Founder Trustee WPT-USA. Senior research biologist. Wildlife Conservation Society.



Andrew Greenwood MRCVS
Founder Trustee of WPT-UK and WPT-USA. Zoo and wildlife veterinary consultant.

Audrey Reynolds
Director, Paradise Park. Founder Trustee of The World Parrot Trust UK

Rosemary Low
Author of 'Endangered Parrots' and 20 more parrot books. Editor of PsittaScene.

Wm. Richard Porter MD
Director of the International Aviculturists Society. Founder Trustee of WPT-USA.

David Woolcock
Curator, Paradise Park. Founder Trustee of The World Parrot Trust UK.

Michael Reynolds
Founder of The World Parrot Trust, Hon. Director of WPT-UK, Trustee of WPT-USA.

...SAVE THE PARROTS!

Lear's Macaw

Echo Parakeet

Red-tailed Black Cockatoo

St. Vincent Parrot

Red-vented Cockatoo

Red-tailed Amazon

Hyacinth Macaw

Join us.

Become a member of the World Parrot Trust, receive our *PsittaScene* newsletter, know that you are actively contributing towards our aims.

Help fund our Projects.

We are currently supporting parrot conservation, education and welfare projects in Africa, Australia, Bolivia, Brazil, the Caribbean, Ecuador, Mauritius, New Zealand, Paraguay, Peru and the Philippines. Your generosity towards the parrots could help us expand current schemes and start new ones.

World Parrot Trust

Aims of the Trust.

The survival of parrot species in the wild, and the welfare of captive birds.

These aims are pursued by:-

Educating the public on the threats to parrots.
Opposing trade in wild-caught parrots.
Preserving and restoring parrot habitat.
Studying the status of parrot populations.
Encouraging the production of aviary-bred birds.
Creating links between aviculture and conservation.
Promoting high standards in the keeping of parrots.
Supporting research into veterinary care of parrots.

YES, I WANT TO HELP SAVE THE PARROTS OF THE WORLD

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$25 (or equivalent currency payment by Access/Visa/MasterCard preferred)
- ☐ Plus donation of £/US$.....

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Please charge my Access/Visa Acc/No.
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Exp. date.....Amount £/US$ .....
Signature.....
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I heard about the World Parrot Trust from.....

PLEASE SEND COMPLETED FORM TO 'WORLD PARROT TRUST' AT:-

UNITED KINGDOM
Glanmor House, Hayle, Cornwall TR27 4HY

USA
Cynthia Webb, PO Box 341141, Memphis TN 38184.

BENELUX
Mrs J. Fiege, Graafseweg 37, 5451 NA Mill, Netherlands

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

DENMARK (SCANDINAVIA)
M Iversen, Alsikemarken 48, 2860 Soborg.

FRANCE
J & G Prin, 55 Rue de la Fassiere, 45140, Ingre.

GERMANY
G & D Harries, Vodestr. 39, 44625 Herne.

ITALY
Freddie Virili, via Matarus w.10, 33045 Nimis, Udine.

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Peter Sipek, 1 Rossell Pl., Glenfield, NSW 2167.

AFRICA
Mike Perrin, Private Bag XO1, Scottsville, Natal, South Africa.

SWITZERLAND
Lars Lepperhoff, Sagemattstrasse 31, 3097 Liebefeld.

PARROTS IN THE WILD

MAROON-FRONTED PARROT
Rhynchopsitta terrisi

The Maroon-fronted Parrots seen above were captured on film by Ernesto Enkerlin, professor of biology at the Monterrey Institute of Technology in Mexico. The range of this species is very small. It occurs only in the states of Coahuila and Nuevo Leon in eastern Mexico, adjoining the Texan border. In appearance, it differs from the Thick-billed Parrot in having the under wing coverts greyish, instead of yellow, and in having the shades of red and green darker. In this issue, Noel Snyder and Ernesto Enkerlin describe the latest developments regarding the conservation of this Mexican species. Mexico has one of the fastest-growing human populations in the world and almost every parrot found there is either already endangered or threatened by loss of habitat.

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

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