Psitta scene

News about parrot conservation, aviculture and welfare from The World Parrot Trust

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TENERIFE DELEGATES VOTE FOR END OF TRADE IN WILD-CAUGHT PARROTS

by Rosemary Low

HISTORY was made in Tenerife in September when Loro Parque hosted what must surely be the best attended convention connected with aviculture ever staged. It was a resounding success with over 900 participants from 30 countries. Many more who had left booking too late were unable to attend because convention facilities were limited.

Numbers alone do not guarantee success. The climate generated by the meeting – the consensus of opinion – was significant. The vast majority of those present were united by the belief that mass trade in wild-caught birds must end, that the demand must be supplied by captive breeding. Some speakers went further and suggested that captive breeding *per se* is not necessarily justification for keeping parrots, that co-operation between breeders (including zoos) and careful use of existing stocks are of paramount importance.

The 21 speakers were residents of Australia (1), the Caribbean (1), Denmark (1), Germany (7), the Netherlands (2), South America (1), Spain (3), UK (2) and USA (4). Their topics were varied around the central theme of Captive Breeding for Conservation. Subjects addressed concerned aviculture, the conservation of specific species in their natural habitat and more broadly based conservation themes. It mattered not – each and every talk was well attended and for the majority the hall was filled to capacity. In this respect it differed from any avicultural convention I have ever attended. The participants were keen – keen to learn and interested in every viewpoint.

The organisers coped admirably with such a large number of participants. Hostesses were always in evidence to answer queries and to hand out head-sets for the simultaneous translation into English, German and Spanish. This excellent system dispensed with the need to read two or three papers simultaneously in different rooms. At any one time all ears and eyes were focused on one speaker – and this ensured a unity which was, perhaps, missing from the first convention (staged in 1986).

The 15 minutes break between each paper gave time for a quick coffee or a breath of sea air from the hotel balcony – and panoramic views of the magnificent coastline and sparkling sea. The break was needed for the schedule was a packed one: papers read on three days from 8am until 1.45pm. In the afternoons one could visit Loro Parque or join a coach excursion to Mount Teide, the highest and most distinctive of Spanish mountains. For many, the collection at Loro Parque provided an opportunity to see species previously familiar only from the pages of books. This collection was the incentive which brought so many enthusiasts from far distant corners of the world! Doubtlessly, many of these birds were viewed with new interest after a speaker provided what was new information for most of those present.

The first paper, presented by Roland Wirth from Germany, was one of the most thought-provoking.

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

Speakers and organisers at the Convention. *Photo: Bernhard Luther.*

ROLAND WIRTH: MOLUCCAN COCKATOOS AND OTHER INDONESIAN PARROTS

"Who is aware of the fact that the habitat of the Moluccan Cockatoo is less than 20,000 sq km, ie, only 8% the size of West Germany?"

Thousands of Umbrella (*Cacatua alba*), Moluccan (*C.moluccensis*) and Goffin's Cockatoos (*C.goffini*) have been imported into Europe and the USA year after year. How many have stopped to wonder where all these birds are coming from? In 1984, 1985 and 1986 the numbers of Moluccan Cockatoos legally exported were 7,398, 7,525 and 7,360. It is little wonder that after almost two decades of rampant pilferage, the stocks in their natural habitat are extremely depleted and that this species *is threatened with almost imminent extinction.*

Cockatoos such as the Moluccan, Umbrella or Goffin's which inhabit the Indonesian islands as well as the various sub-species of Lesser and Greater Sulphur-crested (*C.sulphurea* and *C.galerita*), have different sized beaks. This is by no means a whim of nature. It is the birds' adaptation to the different variety of plant food available on each specific island. So the birds which originally appeared in great numbers, such as the Moluccan, must have exerted some influence on the propagation of the preferred plants in their diet, be it in the negative sense by consuming their seeds, or in the positive sense by excreting undigested seeds, thus spreading them over large areas. With their strong beaks Moluccan Cockatoos are possibly the only animals on the island of Seram capable of cracking the hard shell of some nuts. The survival of certain types of trees may depend on the seed-spreading activities of these birds. The gradual extermination of these cockatoos could bring about a change in the rainforest flora or result in the disappearance of certain types of trees, with the

In his excellent paper on Indonesian Cockatoos, Roland Wirth pointed out that the Umbrella is one of the species whose numbers have been seriously reduced by excessive trade.

subsequent extermination of other animal and plant species. All in all, the extinction of certain parrots could have the same negative ecological effects as so-called selective logging operations. We know that there is a complex interactive link between animal and plant life in nature. What is at stake is the loss of virtually unknown ecological systems. Bird lovers should be aware of this important aspect before purchasing a wild-caught bird.

At the end of 1989, far too late, a resolution was adopted to include the Moluccan Cockatoo on Appendix 1 of CITES. In the same year, Indonesia's major exporters mounted a final large-scale operation, depleting the few remaining stocks. At present nobody can tell how many survived the holocaust on Ambon and in western Seram. Some may have survived in the more inaccessible regions. If conservation activists do not succeed in establishing a rescue programme for Moluccan Cockatoos they might become extinct long before the Imperial Amazon. The essential action is to protect the vast Manuela National Park against bird trappers.

The fate of the Umbrella Cockatoo is similar to that of the Moluccan, with the additional disadvantage that its plight has been virtually ignored. They are not only trapped for trade but, at least on Halmahera, are also shot for food. Many other Indonesian parrots are equally threatened. It is only a matter of time before the Citron-crested Cockatoo (*C.s. citrino-cristata*) is extinct in the wild. It is found only on Sumba. Dr. Martin Jones from Manchester has submitted a proposal for a comprehensive and extensive conservation project on Sumba. US$28,000 is needed to finance this project...

Please contact Roland Wirth for further details:
Zoologische Gesellschaft für Arten- und Populationsschutz, Franz-Senn-Str 14, 8000 München 70, West Germany.

PAUL BUTLER (Caribbean) : THE CONSERVATION OF LESSER ANTILLEAN AMAZONS

"No group other than parrots is threatened by such a multitude and complex inter-relationship of pressures including natural disasters, habitat destruction, and hunting for food, feathers and the live bird trade, whilst at the same time being long lived and slow breeding."

Around the world many psittacine species are in decline – nowhere more so than in the small insular nations of the Caribbean. In the Lesser Antilles, Saint Lucia, Saint Vincent and Dominica have protected their parrots through the enactment of legislation dating back to the turn of the century and have complimented this with the establishment of forest reserves, national parks and conservation areas. Yet these actions, and until recent times the populations of their endemic psittacines, have continued to decline. Why? A fundamental problem in using legislation to alter behaviour is that, in small islands the majority of islanders are known to one another. Forest officers and other law enforcement officials are reluctant to take their neighbours to court and, more often than not, a charge is never levied. Indeed, for almost 90 years, no wildlife offences were recorded in Saint Lucia during a period when it was estimated that over 40 parrots per year were being shot in an attempt to catch them.

Saint Lucia has now implemented a comprehensive conservation programme that initiated legislative enactments, reserve establishment, and captive breeding programme simultaneously – and underpinned these with a far-reaching and innovative conservation education programme. It incorporates the usual components of a traditional education project plus the innovative use of music, dance, theatre and the interaction between Government, non-governmental organisations and local businesses. This tri-partite approach, with the external agency serving solely as a catalyst providing core materials and technical assistance, has resulted in a sustainable programme of conservation education which has long outlasted the initial involvement of outside funding. At the same time it has generated a surge of local pride and determined efforts to protect the island's natural patrimony.

As a result of the stringent new protective measures and a cessation of all hunting, the wild population of the St. Lucia Parrot has increased from about 150 individuals to over 250 in the space of a decade. Today, this species is expanding its range and may now be found in forested areas from which it vanished more than a quarter of a century ago. The education component of Saint Lucia's programme was deemed to have been the core of its success. This success is now being replayed on the neighbouring islands of Saint Vincent and Dominica. The strategy being adopted is to run their education programmes in a manner similar to a company's marketing campaign, using their colourful national birds (the Saint Vincent Parrot, *Amazona guildingii* and the Imperial Parrot, *A.imperialis*) as the foci for promotion.

As in any marketing approach the programme commences with a "consumer" research study, with 1% of the population being surveyed by questionnaire. After respondents have completed this, they are informed of the correct responses and of the plight of the parrot; this serves to begin the process of stimulating an awareness and knowledge of the bird in question. Colourful posters depicting the parrot and linking its survival to island pride are distributed island wide and displayed in store windows, bars, health centres, post offices and police stations. This begins the public's familiarisation with the parrot. In Saint Vincent and in Dominica all schools have been visited by forestry staff and over 90% of the island's children spoken to. For younger children, puppet shows have been presented and in all three islands the programme is complimented with the monthly production of an environmental newspaper. School-leavers and teenagers are targeted through the use of music, dance and theatre,

St Vincent Amazon *Photo: Mike Reynolds*

with local musicians and artists being encouraged to write lyrics and tunes promoting conservation and national pride.

After the first year the questionnaire survey is repeated, using the same questions. The results have been impressive. In Saint Vincent, post programme results recorded 94% or respondents knowing the Saint Vincent Parrot to be their national bird, and over 60% (up from 35%) knowing its population status. 72% (up from 55%) realised the species was endemic and 24% (an increase from 0.6%) knew the legislative protection. Most importantly, 93% believed it to be important for the Government to spend time and money protecting the parrot and its forest home.

Dr. G. KAAL: (Netherlands)
VENEREAL DISEASES IN PARROTS

"With the help of silver nitrate, cloacal papillomas are swabbed every day or every other day. In most cases the papillomas have disappeared after ten days."

Diseases and infections in the area of the cloaca are common. A now frequently occurring condition, which requires our special attention, is cloacal papillomatosis. A papillomatosis is a tumourous growth of epithel cells (epithel means the tissue forming the outer layer of mucous membrane). There may be epithelium cells of the skin as well as of the mucous membrane (mouth, throat or cloacal mucous). Psittacine birds are susceptible to papillomatosis of the beak but especially of the mucous membrane of the cloaca. South American species are especially prone to this condition; it also occurs in Australian parrots.

Often there is a combination of oral and cloacal papillomatosis. When one bird in a collection is subject to this condition, within a short time more will follow. What is the cause? Although some researchers have found a papova-virus in cutane papillomatosis in several *Amazona* and Grey Parrots, no viruses could be found in the papillomas themselves. It is asserted as a general hypothesis that irritation of the cloacal mucous membrane followed by hypotrophy is the pathogenesis of these proliferations.

The first symptom of cloacal papillomatosis is soiled vent feathers. There is also an unpleasant smell. Later the bird will strain when defecating, due to the slow-growing tumorous tissue in the cloaca. Fertility decreases because the obstruction prevents the passage of sperm to the oviduct of the female. There is often a bacterial complication which also has a negative influence on fertility.

Extensive papillomatosis is also seen externally as a red protrusion from the cloaca. At first this is seen only occasionally, especially after defecation, but later the protrusion is permanent. It looks something like a raspberry. In many cases fresh blood is seen in the faeces. The latter have a strong smell so that diagnosis can almost be made on the basis of this odour.

With the aid of a cloacoscope, visual investigation, externally and internally, can aid the clinical diagnosis. Definitive diagnosis is obtained by means of a biopsy. It is easiest to obtain a diagnosis when the bird is laid flat on its back after being anaesthetised. With thumb and index finger one can bring the latter part of the cloaca to the surface. This should be examined with a magnifying glass. I have the impression that this condition is not only infectious but also contagious.

Cloacal papillomatosis is not easily treated. Often after one or more months a relapse occurs. Surgery can be considered but it can cause haemorrhages. It is better to use a cryosurgical treatment in which the affected areas are subjected to a temperature of -20°C to -30°C. Only well separated tumours can be excised. I have tried several therapies but none have proved satisfactory except chemical cauterisation. With the help of silver nitrate, the tumours are swabbed every day or every other day. In most cases the papillomas have disappeared after 10 days. Only in a few cases does a relapse occur.

PETER EVANS (UK): STATUS AND CONSERVATION OF IMPERIAL AND RED-NECKED PARROTS ON THE ISLAND OF DOMINICA.

"Flock sizes of Imperial Parrots, which since 1982 have never exceeded three individuals, are currently showing maxima of double this amount..."

In 1978 and in every year since 1982 I have monitored numbers of Red-necked (*Amazona arausiaca* and Imperial Parrots (*A.imperialis*) in the Upper Picard Valley, on the north-western slopes of Morne Diablotin, one of the areas where numbers of both species are concentrated. The results indicate a substantial decline in the population size of both species after Hurricanes David and Allen. The total populations were estimated in 1987 at about 200 Red-necked and about 60 Imperial Parrots. However, in the last two years the Red-necked Parrot populations have been showing signs of recovery, with an expansion of their range.

The latest total island estimate (May 1990) is of about 300 Red-necked Parrots. The Imperial showed no evidence of recovery until very recently. Timed watches and surveys in April-May 1990

Imperial Amazon *Photo: Mike Reynolds*

indicate a marked increase in numbers now occupying the Upper Picard Valley, and the return of the species to the Syndicate and Morne Plaisance Estates where it had been virtually absent for ten years. Flock sizes of Imperial Parrots, which since 1982 had never exceeded three individuals, are currently showing maxima of double this amount, and during one of five 100 minute watches in the Upper Picard Valley in April 1990, a total of 16 separate individuals were recorded. This bodes well for the future, so long as these regions can be afforded protection. The current total island estimate is of about 80 Imperial Parrots.

The continued presence of two species of parrots on Dominica is almost certainly due in part to its very fine rainforests, undoubtedly the best in the Caribbean with a diversity of woody plant species comparable per unit with some sites on the mainland of Central and South America. Large scale forest destruction in Dominica is a very recent phenomenon. It is estimated that in the last ten years a greater area of forest has been destroyed than in all of the previous 1,000 years.

In July 1989 Dominica Timbers Ltd had already moved into the Dyer Estate and was selectively felling gommier trees (*Dacryodes excelsa*), one of the most important food and nesting trees for both Imperial and Red-necked Parrots. By the end of the month, 14 large trees had been felled, and skid trails were penetrating well into the Dyer Estate towards an area particularly important for the Imperial Parrot. This occurred in spite of the memorandum of agreement signed between ICBP, RARE Center and the Government of Dominica in August 1988 to work towards protecting the forest of the Picard River watershed. Funds for land purchase had been raised from a number of sources but especially by aviculturists and zoos. Then in 1989, in the nick of time, the combined efforts of these, the Government of Dominica, RARE Center, ICBP, and the people of Dominica, saved the day. The intensive education campaign spearheaded by Ronald Charles of the Forestry Division and Paul Butler raised public awareness and resulted in small local donations and a petition signed by nearly 6,000 children stating that they supported all efforts by the Government to try to save the "Sisserou" (Imperial). Thus 204 acres of land were obtained, including a generous donation of 59 acres by Dominica Fruit Syndicate.

Since then, a funding proposal for the development of a Morne Diablotin National park has been prepared on behalf of the Dominican Government and ICBP. This proposal, costing approximately $2 million, includes plans for surveying boundaries, building a nature centre (with research facilities), trails, observation towers, conservation education, ecotourism and applied research on wildlife and agroforestry. The proposed national park covers 6,375 acres and represents not only the most important area for the two parrot species, but the best tracts of forest within the entire country. Much of the long-term future for both species will depend upon the success of this ambitious project.

JOSEPH FORSHAW (Australia): WHY OPPOSE AVICULTURE BUT ACCEPT DUCK HUNTING?

"Aviculture is not self-sustaining; and I doubt that the worldwide demands ever could be met from captive resources."

From the conservation viewpoint, I consider aviculture and duck-hunting to be alike in that both utilise wildlife and must be subjected to the same principles of sustained yield harvesting. Until this fundamental premise is accepted by the international avicultural community, little progress can be made in bridging the gap between aviculture and other wildlife interests. Waterfowl hunting has long been recognised as a harvesting activity, with a regime of checks and balances becoming an integral part of the system. In most countries, limitations are imposed through open and closed seasons, bag limits, and the designation of areas, often on a rotational basis, where hunting is prohibited. Additionally, full protection is afforded to rare or non-game species.

Funds obtained from licences are allocated to research which monitors the status and ecological requirements of game species to determine appropriate strategies for hunting. This system enjoys general acceptance by both hunting and conservation interests, thereby giving waterfowl hunting a credibility that certainly is not afforded aviculture.

Trade in parrots and other birds must be based on sound principles of sustained yield harvesting. Before trade in any species is undertaken it is necessary to ascertain whether wild populations can sustain trade and, if so, at what level. When those data are obtained, regulated trade could be permitted, with periodic checks to monitor the effect. Monitoring procedures should incorporate assessments of recruitment rates to ensure that harvesting is directed at appropriate age groups of the population, usually the younger, non-breeding birds. Wasteful and inhumane methods, such as felling of nest trees or shooting adults in the hope that one or two will recover from injuries, must be eliminated. The capability of wild populations to withstand harvesting must be established before trade is permitted!

The majority of exporting countries are developing nations which do not have the resources for setting up monitoring studies. If, for example, Guyana wishes to continue to export Orange-winged Amazons (*Amazona amazonica*), there must be comprehensive surveys to identify areas and determine numbers for harvesting, also to identify areas where the species would be fully protected. Financial assistance for such studies should come from trade interests. Already the CITES Secretariat is administering quotas in wildlife trade, so it could perhaps set up a unit to oversee a sustained yield harvesting regime for the international live bird trade.

If aviculturists do not adopt a responsible attitude and denounce trade in species which are threatened in the wild, they must expect that legislation now being enacted in some states of the USA to prohibit trade in wild-caught birds will be accepted more widely.

JOHN STOODLEY (UK): THE WAY FORWARD

"Unless aviculture can improve upon nature, it should not intervene."

Many of you good people present today will have become aware of the dramatic changes that have taken place over the last few years concerning some domestic animals. There is a heightened sensitivity that is becoming more forcefully and widely demonstrated. Wherever live animals are exhibited, there is an acute awareness at management level of today's predominance of pressure groups and a healthy regard to avoid the adverse publicity that can be generated by these groups. There are reactionary groups which are totally opposed to birds in captivity. The distorted and biased views they put forward are being accepted by the public as authoritative. We can bury our heads in the sand and do nothing to correct these views, or we can endeavour to show a greater understanding of habitat destruction and the need for conservation in captivity.

If we are to gain credence and be permitted to continue our interest in aviculture – especially people like myself with non-commercial collections – we must improve relations with opposing factions. We must be seen to support and take interest in all forms of birdlife – not only parrots and tropical birds in captivity.

A selection of John Stoodley's chicks

For birds which do survive capture and transportation to become established in captivity – what then? For example, I kept all but one member of the small genus of *Pionus* Parrots and, in just a few years, produced well over 500 young. I disbanded the project because I felt there were no other avenues to explore. I had taken my work with them as far as I could go.

At the present time it is still considered vogueish to own a tame parrot. Regrettably a large number of my youngsters are channelled into house pet situations. This saddens me greatly. Supplying pets is not my idea of good aviculture. The only redeeming factor is that captive-bred birds are not subjected to the traumatic experience of being trapped and then transported. Contrary to popular belief, captive-bred parrots – and they are being bred in large numbers – are not having an effect on the numbers taken from the wild. There are ready markets for all that can be clawed from the forests.

Each bird taken from the wild is considered by those opposed to bird-keeping to be another sacrificed to a life of confinement. To overcome these prejudices and to justify keeping the birds, the keepers must become more skilful and proficient in the execution of their craft.

In the past I have been criticised for being too scientific in my approach to aviculture. My achievements in advancing mechanical incubation, totally rethinking psittacine nutrition and raising parrots in large numbers, would demonstrate that a little science is indeed effective and being scientific has its compensations and rewards. We produce good sound chicks free of deformities.

Dr. DAVID GRAHAM (USA): NEW DEVELOPMENTS IN AVIAN MEDICINE

"The understanding of viral diseases of parrots has been greatly enhanced by utilisation of newer techniques in virology, protein and nucleic acid chemistry and in immunology and serology. Preventive vaccines continue to be developed."

The aim of research in avian health is advancement of knowledge concerning the diagnosis, treatment, and prevention of avian diseases; significant advances in avian medicine are being made in many realms.

So-called "non-invasive imaging" has long been available to the avian veterinarian in the form of routine radiography. Refinement of radiographic films and improved techniques permit detection of not only the coarse manifestations of skeletal structures and changes in the size and contour of internal organs but also of the fine detail of the secondary and tertiary bronchiolar structures of the lung. The lumen and lining of the crop, proventriculus, gizzard and intestines can be seen with the aid of contrast media; intravenous pyelography reveals the structure of the kidneys. However, the spatial and relative mass relationships of internal organs can be difficult to interpret via the shadowed images of routine radiography.

Uniquely revealing and detailed cross-sectional views of the body can be attained through use of computer assisted tomography ("cat scan") and nuclear magnetic resonance imaging (NMRI). These techniques are being used by clinicians and researchers at Texas A and M University in the diagnosis and study of acquired hydrocephalus and so-called "wasting/proventricular dilation disease" of parrots and visceral changes in ascites disease of poultry. Sonography, which is dependent upon the transmission of sound waves through liquid or solid tissue, is of limited usefulness in birds, with their large air sacs.

Viral diseases: It was not until the early 1970s that viral diseases of parrots received serious attention. Classical techniques of virus isolation, purification, characterization and identification continued be be applied productively in studies of what are today known as parrot reovirus infections, parrot polyomavirus infections and feather and beak disease, among others. Studies of the pathogenesis of virus diseases provide insight into possible prevention and control measures. Indeed, based upon study of the epidemiology and lesions of feather and beak disease, a long-term experiment was undertaken in 1987 to determine the feasibility of eradication of the disease from a previously infected cockatoo breeding collection which had experienced up to 28% morbidity from FBD in its progeny. From August 1987 to the present (August 1990) that cockatoo colony has experienced no new cases of FBD in its progeny.

At one time viral diseases were considered untreatable. The drug Acyclovir developed for treatment of human Herpesvirus infections, has proven effective in reducing mortality in outbreaks of parrot Herpesvirus infection (Pacheco's disease). Other antiviral drugs, some in combination with immunomodulators, show promise for use in the treatment of other avian virus infections.

KEES SCHOUTEN (Netherlands): Legislation for nature conservation

"In my opinion, aviculturists are capable of breeding the more common pet birds in large numbers and this, in combination with reduction of the import in wild caught birds, could solve many of the problems presently existing."

In respect of captive breeding, CITES regulations seem rather complicated and need to be clarified. Article VII (4) states regarding captive breeding: "Specimens of an animal species included in Appendix 1 bred in captivity for commercial purposes... shall be deemed to be specimens of species included in Appendix II."

This means that for CITES there is no import permit and that the specimens can be imported for primarily commerical purposes.

Resolution Conf 2.12 recommends that the term "bred in captivity" be interpreted to refer only "to offspring, including eggs, born or otherwise produced in a controlled environment; either of parents that mated or otherwise transferred gametes in a controlled environment, if reproduction is sexual...

"It further provides that the parent breeding stock must be, to the satisfaction of the competent management authorities of the relevant country:
"a) Established in a manner not detrimental to the survival of the species in the wild.
"b) Maintained without augmentation from the wild...
"c) Managed in a manner designed to maintain the breeding stock indefinitely."

With respect to c), the breeding stock must be managed in a manner which has been demonstrated to reliably produce second generation (F_2) offspring in a controlled environment. Note that this does not imply that the parental breeding stock must actually produce second generation offspring in order that the first generation is considered to be captive-bred in accordance with the resolution. What it does mean is that the stock must be managed in the same way as comparable stocks which are known to reliably produce second generation offspring.

An operation thus managed can therefore export first generation offspring before producing any from the second generation – which makes it financially more feasible to start a commercial captive breeding operation.

In Economic Community regulation 3626/82 further measures have been included. The most important addition to CITES is the division of Appendix 11 species into a C1 and a C2 list. Species listed on C1 are treated within the Community as if they were listed on Appendix 1. For the species listed on C2 a stricter control of the trade has been established through article 10.1.b, which states that a permit for the import of these species will be issued where "... it is clear or the applicant presents trustworthy evidence that the capture or collection of the specimen in the wild will not have a harmful effect on the conservation of the species or the extent of the territory occupied by the populations in question of the species."

If there is doubt that a natural population of a species can withstand trade, under Article 10.1.b. the import of that species from that population can be prohibited.

Dr CHRISTOPH IMBODEN (UK): HOW VALUABLE IS CAPTIVE BREEDING FOR CONSERVATION?
(Dr Imboden of ICBP was unable to be present – but his paper was included in the Proceedings.)

"Captive breeding of endangered species should be seen as a last resort action; to be implemented when everything else has failed or is likely to do so."

Under no circumstances should captive breeding be advocated when it might diminish the chance of saving a species' wild habitat or where it might give someone the opportunity to deny us this chance. Should individuals of a species which has declined to a dangerously low number, be taken for a captive breeding programme? This might further reduce the viability of the remaining wild population; yet the population might already be below the critical level from which it could recover, and the individuals added to a captive breeding programme might make a crucial difference to its success. The dilemma becomes particularly grave when a very small number of birds remain in the wild and the question arises as to whether they should *all* be taken into captivity. In the latter case we might be removing the key element in the fight to save an entire habitat. The answer to all these questions is that they need to be looked at from case to case, taking into account all the available factors.

The increased promotion of captive breeding as a strategy to save endangered species reflects the fascination with and belief in technology: everything can be fixed if we try hard enough. It seems an attractive proposition over which we have more control than the vaguer concept of protecting an area of rainforest in a politically unstable and economically deprived country. The use of this approach is particularly promoted by institutions and individuals which

make an economic living, or even derive a considerable profit from this business.

Much has been said about the key requirements of captive breeding programmes designed to save a threatened species. At the 1990 American Ornithologists' Union Meeting, S.R. Derrickson and N. Snyder presented a paper entitled "Potentials and limits of captive breeding in parrot conservation." They stated that:
- The breeding facility should, if possible, be located within the distribution range of the species.
- If the captive population is large enough, it should be split into two parts at different localities.
- An appointed management body should have complete freedom over the movement and use of all available birds, free of any ownership considerations.
- Ownership of progeny produced under the programme or additional breeding stock obtained from the wild should lie with the Government of the species' country of origin.
- An expert must supervise and advise on the genetic aspects of the programme.
- Considerable precautionary measure must be taken to prevent the outbreak of disease and to avoid the onset of domestication.

Of the 1,000 threatened bird species, possibly fewer than 100 are suitable for this kind of recovery programme. Many simply cannot be bred in captivity, let alone in self-sustaining populations. Another consideration is that domestication seems to proceed particularly rapidly in many parrot species, making them unsuitable for later release programmes.

The use of lyophilized lactobacilli to repulse enterobacteria in parrot chicks, such as this Illiger's (Ara maracana), was described by Dr Helga Gerlach from Germany.

Prof Dr. HELGA GERLACH (Germany): REPULSION OF ENTEROBACTERIACEAE BY USING LACTOBACILLI

"The lactobacilli contained in sour milk products stem from cows, thus can hardly be expected to colonise in the gut of humans or other animal groups."

The autochthonous gut flora of Psittaciformes does not include Enterobacteriaceae. Nonetheless, bacteria from this family are frequently found in parrots in captivity. However, the affected birds do not regularly show clinical signs of disease. All the same, this presents a potential hazard since once the intestinal barrier has been breached, severe disorders or even death may be expected. Treatment results in the inhibition or destruction of other groups or organisms including those that belong to the normal flora and whose function is indispensable.

Especially prior to the antibiotic era, human medicine and the commercial poultry breeding sector have recommended administration of soured skimmed milk, yoghurt, cottage cheese, etc, for repulsing undesirable enterobacteriaceae and for preventing colonisation by these bacteria. In the meantime, lyophilized bacterial cultures have been developed. Parrots have been treated with these products – albeit without great success. The daily application of these organisms over periods of several weeks is necessary for repulsing undesirable gut flora components.

The following is a report on investigations on the control of intestinal colonisation by enterobateriaceae with lactobacilli. A strain of lactobacilli from Amazons was cultivated to a pure strain, biochemically characterised, cultivated in a fluid culture, concentrated by centrifugation, and lyophilized. The dosage was adjusted to 10^{10} per bird, a control was performed for culture purity and, after lyophilization, was tested again for organism counts by random sample.

Various parrot species were used for the investigation. Three groups were formed: a) adults and young with complete autochthonous flora (as from the fourth week of life onwards). b) Freshly hatched chicks that, as far as possible, had been fed lactobacilli as their first meal. c) Budgerigars that demonstrated normal gut flora were orally infected with E.coli. Once the E.coli had become established, the birds were to be given lactobacilli. However, the attempt to produce colonisation was unsuccessful.

Summary of the results of the collective faecal samples.
See table opposite:

BRANSON RITCHIE (USA): BEAK AND FEATHER DISEASE

"We suggest that the etiologic agent of PBFD is a prototype for a new family of pathogenic animal viruses."

In the mid 1970s a disease characterised by symmetric feather dystrophy and loss, development of beak deformities, and usually death, was described in a number of South Pacific parrot species. Histologic or clinically suggestive lesions have now been recognised in 35 species. While most white cockatoos are reported in the list of susceptible hosts, there has only recently been documentation of PFBD in a black cockatoo and in New World parrots (two species of Amazon). The host range remains largely unknown. With the widespread global movement of birds for the pet market, the potential for introducing the highly virulent virus responsible for PBFD into wild populations of the world's more endangered psittacine species deserves serious consideration.

PBFD is most commonly reported in young birds during their first feather formation after replacement of the neonatal down. Chicks as young as two months have been described with classic lesions. However, it is reported most commonly in birds less than two years of age but 10,15 and 20 year old birds that have previously shown no sign of the disease have been diagnosed.

The type of clinical disease is possibly influenced by the route of viral exposure, the titer of the infecting virus, the virulence of the viral isolate and the age and condition of the bird when exposure occurs. The acute form is common in fledglings and immature birds and is characterised by lethargy, depression, diarrhoea, and often death. Gross feather lesions can be quite subtle with only a few feathers showing dystrophic changes. In the chronic form, normal plumage is progressively replaced with dystrophic contour feathers and down. The non-viable feathers stop growing shortly after emerging from the follicle.

The PBFD virus is a 14-16mm diameter, icosahedral, nonenveloped virion. Based on the radical differences in virion dimension, polypeptide composition, and nucleic acid size and conformation, we suggest that the etiologic agent of PBFD is a prototype for a new family of pathogenic animal viruses.

To determine the relationship of virus recovered from different genera of infected psittacine birds, purified concentrated virus was recovered from a Sulphur-crested Cockatoo, a Palm Cockatoo (*Probosciger aterrimus*) and a Red-lored Amazon (*Amazona a.autumnalis*) and a Peach-faced Lovebird (*Agapornis roseicollis*). This study was designed to establish the association of clinical and histologic lesions with virion recovery from various parrot species, to refine the characteristic of the virus based on the commonality of ultrastructural features and viral protein composition, to establish the presence of common antigenic determinants among virus purified from different diseased birds and to document the expanding host range of the PFBD virus. Comparison of the ultrastructure characteristics of virus purified from four genera revealed that the morphology and protein composition were similar for each. With the numerous species of birds currently considered susceptible to the virus, the

TABLE 5: SUMMARY OF THE RESULTS OF THE 20 INDIVIDUAL TESTS

	CASES	%
NO PERMANENT LACTOBACILLUS COLONIZATION	4	20.0
NO CHANGE	3	15.00
BEFORE WITHOUT, AFTER WITH ENTEROBACTERIACEAE	4	20.00
ENTEROBACTERIACEAE REPLACED BY OTHER ORGANISMS	1	5.0
COMPLETE SUCCESS	7	35.0

antigenic homology that can be demonstrated between purified virus from different genera will be significant in the use of improved diagnostic test and in the development of an effective PBFD viral vaccine.

Findings suggest that exposure of susceptible birds to the PBFD virus may occur from contact with contaminated feather dust, faeces and crop secretions.

Mr Ritchie's paper concluded those read at the Convention. We regret that, for reasons of space, it was not possible to report on all the papers presented. However, copies of the *Proceedings*, that is, all the papers presented at the meeting, can be obtained from Loro Parque, Puerto de la Cruz, Tenerife, 38400, Canary Islands. The *Proceedings* are available in English, German and Spanish.

Cost of The Proceedings:

Country	with hard cover	loose-leaf
Europe (except Spain)	3,600Pts.	2,985Pts.
Spain	5,000Pts.	3,600Pts.
USA/Canada	7,000Pts.	3,700Pts.
South and Central America	7,500Pts.	4,200Pts.
Australia	9,500Pts.	5,900Pts.
Asia	9,500Pts.	5,900Pts.

Note that the price includes registered air mail costs and must be paid for in pesetas (ie. by Giro, international money order, peseta cheque or Eurocheque). As the time of going to Press the exchange rate was 187 ptas to the pound sterling. Orders should be addressed to Loro Parque SA, Puerto de la Cruz, Tenerife, Canary Island, Spain.

THE BIG FINISH:

On the final afternoon of the three-day Convention, an open forum took place. This allowed participants to air their views on a wide range of topics, also to ask speakers their opinions. Subjects ranged from the controversial issue of "pest" species of cockatoos in Australia, latest events concerning the captive Spix's Macaws (Walsrode's male is to be sent to join the female in the collection of Nelson Kawall in Brazil) to hand-rearing and genetic finger-printing. Veterinary and dietary topics were also discussed – but it was the trade in wild-caught birds which was perhaps the most emotive subject.

One participant said that he had no idea how many of the species now well-known in aviculture had been threatened by trade, until he listened to some of the speakers at the meetings. For example, many of those who attended had been shocked to learn of the effect of trade on populations of the white cockatoos. They were equally alarmed to hear of the huge numbers of birds traded, as described by Jorgen Thomsen. The result of this concern was that those present were asked to demonstrate by a show of hands, whether or not they were in favour of "an end to the trade in wild-caught parrots". There was no possible doubt regarding the general feeling: it was estimated that 85-90% of those present denounced the harmful effects of mass trade in wild-caught birds by raising their hands.

A number of speakers emphasised that it was the responsibility of aviculturists and other concerned people to educate the public against buying wild-caught parrots. If this message was endorsed by the media in every country which was represented at the Convention, the meeting would be judged the most significant yet for the future of parrots and for the reputation of aviculture. it is up to each and every one of us to endorse it with words and actions...

NEW SPECIES OF AMAZON PARROT DESCRIBED

reports Rosemary Low

An ornithological discovery of major interest to aviculturists is that of a new species of parrot not from a little known genus but one of the best known of all. An Amazon! *Amazona kawalli* was formally described in *Revista brasilcira de biologia* (published in Rio de Janeiro) by Grantsau and Camargo (1989). Their paper suggests that the species was previously undescribed because it was confused with the Mealy Amazon.

This is indeed the case. A specimen now known to be of *kawalli* was exhibited at London Zoo from at least the early 1970s until the mid 1980s or after. It was labelled Mealy Amazon (*A.farinosa*). (I referred to this bird in the first edition of *Parrots, their care and breeding*, p497, in the mistaken belief that it was *mercenaria* – a much smaller species.)

Amazona kawalli is immediately distinguished from the Mealy Amazon by the crescent-shaped area of bare white skin from the cere to the base of the lower mandible. This feature distinguishes it from all other Amazons. The cere is dark grey and the skin surrounding the eye is light grey. The beak is partly yellow-horn colour, with dark grey on the culmen.

Size and shape are similar to those of the Mealy. The authors examined two living *kawalli* and one skin belonging to Nelson Kawall, also the type female, and compared these with 34 skins of *A.f.farinosa* from Brazil. In the latter the culmen length varied from 34mm and 43mm and the wing length from 126mm to 149mm. In the type female of *kawalli* the culmen measured 36mm and in one male it measured 35mm: in the type female the wing length was 120mm.

The plumage of *kawalli* is a more uniform green, compared with *farinosa*, and without the mealy suffusion. The head is described as emerald green. Carpal edge of the wing is light yellow-green. The feathers of the nape and scapulars are margined with black. The tail is a very distinctive feature of this Amazon. On the lateral retrices is a large area of red on the outer web; the tip of the tail is yellowish-green and the central part of the outer web is dark green. The wing speculum is scarlet.

Amazona *kawalli* originates from north western Brazil in the state of Amazonas. The type specimen is from the Rio Juruá. The male described was from Santarém, Parà, collected there by Rolf Grantsau in 1970, and two live birds in the collection of Nelson Kawall are from an area approximately 100km south of Santarém.

Mr Kawall, in whose honour the species has been named, has almost certainly kept a large and varied collection of Brazilian parrots longer than anyone in Brazil. His interest in mutations is well known and some of his mutation *Aratinga* conures have bred to several generations. He has bred, among others, the Red-tailed Amazon (*A.brasiliensis*) and the Queen of Bavaria's Conure (*Aratinga* or *Guarouba guarouba*).

I had the pleasure of visiting him and his wife two years ago in Sao Paulo and of seeing the then unnamed *kawalli* in his aviaries. It is a fitting tribute to a very knowledgeable man that this species should be named after him. Equally knowledgeable – and surely one of the most prolific natural history artists who ever lived – is Rolf Grantsau. His illustration of *kawalli* accompanies the description.

The authors point out that a photograph of a bird of this species (the specimen formerly at London Zoo) can be found on p184 of *Enzyklopädie der Papageien und Sittiche* by K.Bosch and U.Wedde.

Reference:
Grantsau, R. and H. F. de A. Comorgo, 1989, Nova Espécie Brasileiria de *Amazona, Rev. Brasil. Biol* 49 (4): 1017-1020.

Amazona kawalli, picture by Rolf Grantsau.

REFLECTIONS ON THE INTERNATIONAL PARROT CONVENTION by Michael Reynolds

It was good to meet so many old friends, and make so many new ones. The trust had an excellent table right outside the convention hall, and was a focus of interest throughout the convention. Over 600 delegates packs were handed out and we hope for a flow of new memberships over the next few weeks. Only 30 new members signed up on the spot, which was a little disappointing.

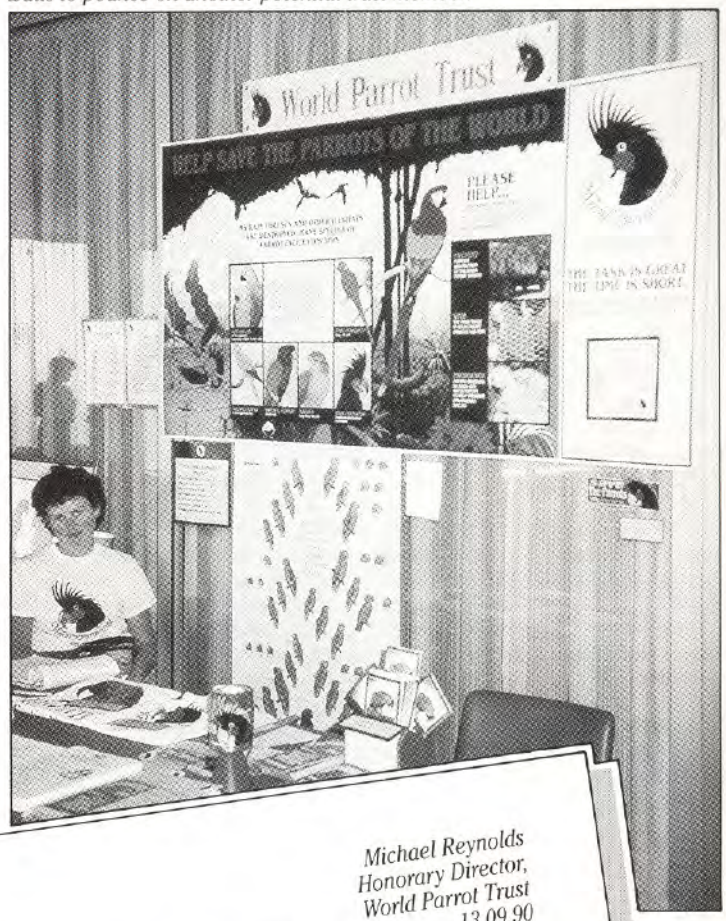
I believe this illustrates that we have a long way to go before it can be said that the 'parrot people' of the world have arrived at a proper understanding of the plight of the parrots and the need to work cooperatively for their survival. In a message to delegates (see below) I said it was time for all who have benefited from their association with parrots to 'put something back' to repay their debt, and that the World Parrot Trust provided an effective and legitimate channel for this. I sincerely believe this to be so, and indeed I am not aware of any organisation or fund which directs its efforts so precisely and economically to help the parrots. We will have to hope for, and work for, a growing awareness of the trust and its merits.

There was no hesitation on the part of delegates when it came to our new Hyacinth Fund T-Shirt. We took only 100 with us, and they all sold on the first morning. If we'd had 1000 we could have sold them all. (We now have plenty available for mailing – see our Action Page for details). It is a beautiful T-Shirt, and perhaps this illustrates that if you have something people want, they will willingly contribute to your funds.

But why should this be necessary? If we accept – and the World Parrot Trust does – that the financial incentive is an essential part of many private aviculturists' motivation, why should it be so difficult to raise funds to help the parrots in the wild? I would like to see a situation where an informal 'parrot tithe' operated: the proceeds of one bird sale in ten being donated to the World Parrot Trust. On present evidence I will have a long wait before such an enlightened approach catches on.

Never mind. The trust now has its first thousand members. It has raised a substantial amount in its first year, and supported parrot projects around the world. In year two we are looking for a further thousand members. If you are a member, it won't cost you a penny to enrol a new member, using the leaflet enclosed with this **PsittaScene**. If you are not yet a member, and you're in sympathy with our aims and objectives, you should be prepared to join. Quite soon now we'll stop sending complimentary copies of PsittaScene to non-member zoos and other bodies. Our newsletter has been well received on all sides and many members have joined just to make sure they don't miss a copy. As far as I'm concerned, nobody is too poor or too grand to be excused from making a modest payment to receive all this interesting parrot news and support our cause.

The World Parrot Trust stand at the Tenerife Convention. Vicky Woolcock waits to pounce on another potential trust member.



Michael Reynolds
Honorary Director,
World Parrot Trust
13.09.90

A MESSAGE TO DELEGATES TO THE 2nd INTERNATIONAL PARROT CONVENTION

Dear Delegate,

The World Parrot Trust was launched less than a year ago. From a standing start it has raised around $120,000, and expended those funds on publishing four quarterly issues of its 'PsittaScene' newsletter, putting in hand essential fundraising activities, and most importantly, assisting parrot conservation projects around the world.

The trust has helped fund Carl Jones's work with the Echo Parakeet on Mauritius, Paul Butler's work in the Caribbean, Pitter & Christiansen's preliminary survey of the Hyacinth Macaw in the Pantanal, a population status update on the Moluccan Cockatoo, ICBP's expedition to check the wild status of Spix's Macaw, and several other projects.

The trust has, from the start, planned to draw attention to the Hyacinth Macaw as the obvious 'flagship species' for all the psittacines. 'THE HYACINTH FUND' has now been launched, and I would particularly ask delegates to give thought to contributing towards this fund. A separate leaflet gives details of various ways of doing this.

A word about the trust and the people involved. The World Parrot Trust is UK Registered Charity No. 800944. It has four trustees: Michael & Audrey Reynolds, David Woolcock, and Andrew Greenwood MA, MRCVS, VetMB. It has one employee, Mrs. Judith Venning, administrator. Dr. Peter Bennett, Conservation Coordinator of the UK National Federation of Zoos, is a member of our management committee. Rosemary Low is honorary editor of the '**PsittaScene**' newsletter, and a valued friend and adviser. Harry Sissen is avicultural adviser to The Hyacinth Fund. Other advisers will join us as we progress, but it is absolutely not intended for the trust to become a mass of committees and bureaucracy. It will also refrain from building up large reserve funds, and does not expect to provide 'career opportunities' for anyone. Above all, nobody involved is on an ego trip. Most of us are here in Tenerife, and will be delighted to discuss the trust with you.

The majority of us at the convention have had wonderful rewards from the parrots: spiritual, and for some, financial benefits. The time has arrived for us all to PUT SOMETHING BACK to help the birds in the wild. The World Parrot Trust offers everyone who loves these birds a legitimate channel to repay our debt to the parrots of the world.

SPIX'S MACAW

– The Dilemma of the World's Rarest Bird by David Woolcock

This is the bird – the last one remaining in the wild. It has to be said that he looks a bit under the weather.

In an attempt to discover the current status of this species in the wild a team of Brazilian and British scientists recently took part in an expedition to the remote area of north east Brazil. They found the wild "population" consisted of ONE BIRD – the last remnant of its species to exist in the wild.

The expedition was carried out under the auspices of the International Council for Bird Preservation (I.C.B.P.) with major funding coming from THE WORLD PARROT TRUST.

The WORLD PARROT TRUST was happy to support the research and field work carried out by the team to determine the status of Spix's Macaw in Brazil. However the WORLD PARROT TRUST cannot endorse I.C.B.P.'s recommendations to "save" the Spix's Macaw.

The trust agrees that in an ideal world perhaps the proposals put forward by I.C.B.P. would work and obviously we would all like to know that the Spix's Macaw is still in existence in the wild; but we do not live in an ideal world and it is rather naive to think otherwise. The major problem for this species is, and has always been, trapping for illicit but highly lucrative sale to wealthy but unscrupulous bird "collectors". The trappers are almost certainly aware of the presence of this last bird but as it stands, a singleton, it is probably relatively safe; introduce another bird from a captive collection to create a pair, and the trappers then have a marketable commodity.

Below are the four recommendations from I.C.B.P. together with the response from the World Parrot Trust;

1. "Protection of last wild bird ..."
   If the species is allowed to go extinct in the wild, it will be much more difficult to reintroduce captive-bred individuals later on. Guards, if necessary armed, should therefore be posted immediately in the locality frequented by the last bird. A scientist should be stationed in the area to keep the bird under observation."

   World Parrot Trust Comment:
   The assumption here is that the remaining Spix's Macaw and potentially another bird (see 2) will survive the attentions of the trappers – possible but extremely unlikely. The number of guards thought by I.C.B.P. to be required is four – two shifts of two men. This seems a surprisingly low number even though the bird's range is probably no more than 2km.

2. "Release of at least one captive bird:
   A suitable wild-caught Spix's Macaw currently held in captivity should be released to provide a partner for the last wild bird. A feather recently collected from the field may allow scientists to determine the sex of the remaining wild bird."

   World Parrot Trust Comment:
   It has been proposed that the other bird to be released should come from the Sao Paulo Zoo in Brazil. The two main problems here are:
   a) How do you know which sex of bird to release to the wild?
   – The feather collected from the field is presumably a moulted one; in order to determine sex by chromosome analysis living material is required. A moulted feather is not living material. What is needed is a blood quill, a feather which is still growing and alive. Blood quills are not naturally shed. In order to determine the sex of the remaining bird in the wild it would need to be handled in order to either remove a blood quill or to facilitate sexing by laparoscope.
   b) Can we be sure that the bird to be re-released was taken from the wild as an adult and not as a fledgling from the nest?
   – If the bird for re-release was originally taken from the wild as a fledgling it is likely that its responses to threats from potential predators will not be as strong as a bird taken as an adult. (This could be a serious problem as the predator could be avian or human.)

3. "Habitat conservation measures:
   "The habitat of Spix's Macaw – a special kind of woodland that only grows by seasonal rivers – is not regenerating. Goats, cattle and sheep currently eat all of the young trees and as a consequence the woodland is gradually dying out. Sections of the seasonal rivers must be fenced for five to ten year periods to enable the young trees to grow out of the reach of grazing animals. Ultimately, this will be of benefit to the local farmers since the mature trees provide renewable food for their animals during the dry season."

   World Parrot Trust Comment:
   THE HABITAT MUST BE CONSERVED. I.C.B.P.'s approach is to keep the Spix's Macaw in the wild for as long as possible. The fear is once the bird is lost from the wild the Brazilians will have no reason to conserve the habitat.

   Would leaving one or two birds in the wild achieve the goal of habitat conservation or would it merely defer the inevitable? Other ways of conserving the habitat must be sought through such means as public education campaigns, fund raising/land purchase and governmental pressure. It should not be necessary to risk the birds for this purpose.

4. "Establishment of local breeding centre"
   To maximise the productivity of the tiny captive population the majority of the captive birds must be moved to a new breeding facility to be established within the current range of the species. This centre should be equipped with the latest captive-breeding technology and staffed by recognised experts. A second flock of 4-6 birds should be maintained at one other locality at an already established parrot breeding facility. The captive birds at the local breeding centre should be managed in conjunction with the remaining wild birds, or could partly be managed as a semi-wild population. Proper climatic conditions prevailing at the local site will facilitate breeding success and acclimatisation of birds for release.

   All captive birds must be brought together in the two breeding localities with no rights of ownership by any individuals. The local breeding centre will also serve as basis for the habitat protection/restoration programme and initiate a local PR/education campaign."

   World Parrot Trust Comment:
   The Spix's Macaw problem is undoubtedly substantial. We are all aware of the dubious means by which many of them have found their way into captivity – but the fact remains they are there and we have to contrive to work with them, and those holding them. The trust sees the first priority to establish just how many birds are out there. If that means a period of amnesty to allow all these birds to be registered, then so be it. Some birds have already been declared and it is apparent that the Spix's Macaw IS BEING BRED IN CAPTIVITY.

   I.C.B.P. do not seem to recognise this fact and tend to think of aviculture as a worthless last resort. This is not the case. Already this year it is known that two Spix's Macaws have fledged in a collection in the Philippines and another three in two Swiss collections.

   To suggest bringing all the birds together in the "two breeding localities" is impractical and most probably would be unproductive. Far better to leave established breeding birds where they are but under condition that all young produced go to establishing a managed population at a site to be agreed. This would also minimise the potential catastrophe should any disease problem occur within a particular site or sites. Having ascertained precisely how many birds are out there and whether or not they are breeding, it should also be possible to try establishing new pairs in existing or new sites.

   The problem of ownership has to be addressed. It is morally wrong that anyone should "own" a Spix's Macaw. But having said that, if some form of legislation is imposed to take away this right we may well find many of these birds disappearing "underground". Surely it is better to reach a compromise over "ownership" which recognises the authority of the Brazilian government and still have a viable population with which to work, than to insist on no rights of ownership and lose to all intents and purposes a major percentage of the population. Much better to consolidate the progress being made in aviculture by promoting increased and better co-operation between holders.

CONCLUSION

THE WORLD PARROT TRUST was happy to support the research and field work carried out under the auspices of the I.C.B.P. to discover the current status of the Spix's Macaw in Brazil. However the trust is not in agreement with the measures proposed to avert the imminent extinction in the wild of the Spix's Macaw. It has been recommended that the one remaining Spix's Macaw be left in the wild, but the trust believes it to be unwise to leave a single unsexed bird, particularly as that individual is likely to be genetically very important. The trust also feels, for the reasons outlined, that the release of another bird would contribute nothing to the long term survival of this species.

The trust also rejects the immediate setting up of a breeding station in situ as it foresees problems of security, disease and lack of technical knowledge and facilities.

The trust advocates the removal of the last bird from the wild and its use, with others, as part of a co-ordinated breeding programme set up under the guidance of The Captive Breeding Specialist Group (C.B.S.G., Species Survival Commission, International Union for the Conservation of Nature and Natural Resources) and the Brazilian government in a place where suitable facilities and expertise can be made available. The programme having the clear objective of building up a substantial population of Spix's Macaw to maintain the species not only in captivity but also to provide specimens to restock the wild. This would be a long term project over perhaps twenty years in which time the habitat could be protected and encouraged to regenerate.

This type of approach has been adopted for many animal species and in the main has proved successful.

The World Parrot Trust recommends I.C.B.P. to review its attitude towards aviculture and acknowledge the contribution it can make towards the conservation of many endangered species including Spix's Macaw.

LETTERS TO THE EDITOR

From Paul Butler, RARE

Dear Rosemary,

Having spent the past 15 years working day by day in the Caribbean islands of Saint Lucia, Saint Vincent & The Grenadines and Dominica I was delighted to see a three page spread in your August Psittascene dedicated to *Amazona guildingii*.

As was correctly stated in the opening paragraph this spectacular bird is truly the "most beautiful" of the island Amazons. Unfortunately some other aspects of the article were less accurate including several references to the people of Saint Vincent & The Grenadines as 'Vencentians'. They are Vincentians and the Country is Saint Vincent & The Grenadines.

Living in the islands we are constantly faced with outsiders telling us what to do and what not to do with our native wildlife. While opinions and suggestions are important one would hope that they are based upon accurate facts. If the names of the Country and its people are incorrect what else of greater significance might also be incorrect?

In column four of the first page Mr. Noegel states that "we have continually been pressured by at least one member of the St. Vincent Parrot Consortium to sign over birds to them in order that all *guildingii* outside the island could be returned."

Whilst I can not speak for that island's Government, I can assure Mr. Noegel that in the 10 years since the Consortium was established the Government has not asked for a single bird in the Consortium to be returned and I doubt that they will as long as the birds are being utilised in the best interest of the species.

Earlier in his text Mr. Noegel speaks of there being 59 *guildingii* outside St. Vincent and of 20 being legal. Even allowing for the few that have been raised in captivity this still means a number were probably obtained illegally and if this is the case, and such can be proved, then I believe the Government would request their return and the offender dealt with in the severest way. Is this wrong?

On page 2 of the text Mr. Noegel refers to my own work on the island stating that 82 birds were found to be in captivity in addition to 17 being housed in the Gardens. This again is inaccurate, a total of 81 birds were banded. All custodians signed an agreement forbidding them to sell, loan or give birds, that they could be utilised for any on island captive breeding programme, and that they were to be kept according to certain standards. Several custodians have indeed passed birds to the Government aviaries and all captive parrots are monitored regularly.

Mr Noegel continues by stating that trade in this species is grossly over exaggerated. Reports reaching the Government indicate that in 1988 20 birds were smuggled out of St. Vincent & The Grenadines on consignment to Europe representing some 5% of the species' population. This information was from a dealer alarmed at the situation and not from a reactionary conservationist.

I would agree that the wild population of *A. guildingii* is probably stable at about 450, as to whether it has reached carrying capacity is difficult to determine as there are still forested areas which would appear to be able to support larger parrot populations. Mainland St. Vincent is not 87% volcanic rock and agriculture; 31% of the Country is forested and about 25% suitable for parrots. In addition parrots are often seen on fringe agricultural land.

With regards to the Government's commitment to conservation, this should not be questioned. The Prime Minister personally initiated action to try to solicit the return of birds believed to have been exported illegally; some 22 Nature Reserves have been established and the Country recently ratified CITES. The Forestry Division staff are keen, motivated and their Senior Officer, Brian Johnson dedicated to protecting his island's natural heritage. Forest Officer Quammie recently undertook a population census of *A. guildingii*, exactly replicating techniques taught to him in 1988. Education programmes continue and responding to a questionnaire survey 80% of those sampled stated it to be very important that the Government protect the island's National Bird – the Saint Vincent Parrot.

The extreme difficulty of breeding *A. guildingii* is perhaps over stated. Rather it may be that for success to be achieved collections may need to comprise large groups of birds. To date successes have been achieved where this is the case ie by Messers Noegel & Miller, and in St. Vincent's own aviaries; where thanks to the dedication of Forest Officer Lennox Quammie four chicks have been raised since 1988.

Finally, we could argue long into the night about the number of colour morphs. Having examined 81 birds I believe there to be fundamentally two colour types and I will be preparing a paper on this topic.

What the Saint Vincent Parrot needs now is for everyone to work together. For agencies and individuals to recognize the outstanding efforts being made by the Government of Saint Vincent & The Grenadines, and for all those individuals outside the island who have *guildingii* to act in the best interest of the species. This means breeding them to ensure a safe gene pool in case of natural disasters, to refrain from selling individual birds, and to join the Consortium and make it the success it deserves.

P. J. Butler

From David Jeggo, JWPT

Dear Rosemary,

I read with interest "Captive Breeding the St. Vincent Parrot *Amazona guildingii*" which appeared in the August 1990 edition of Psittascene.

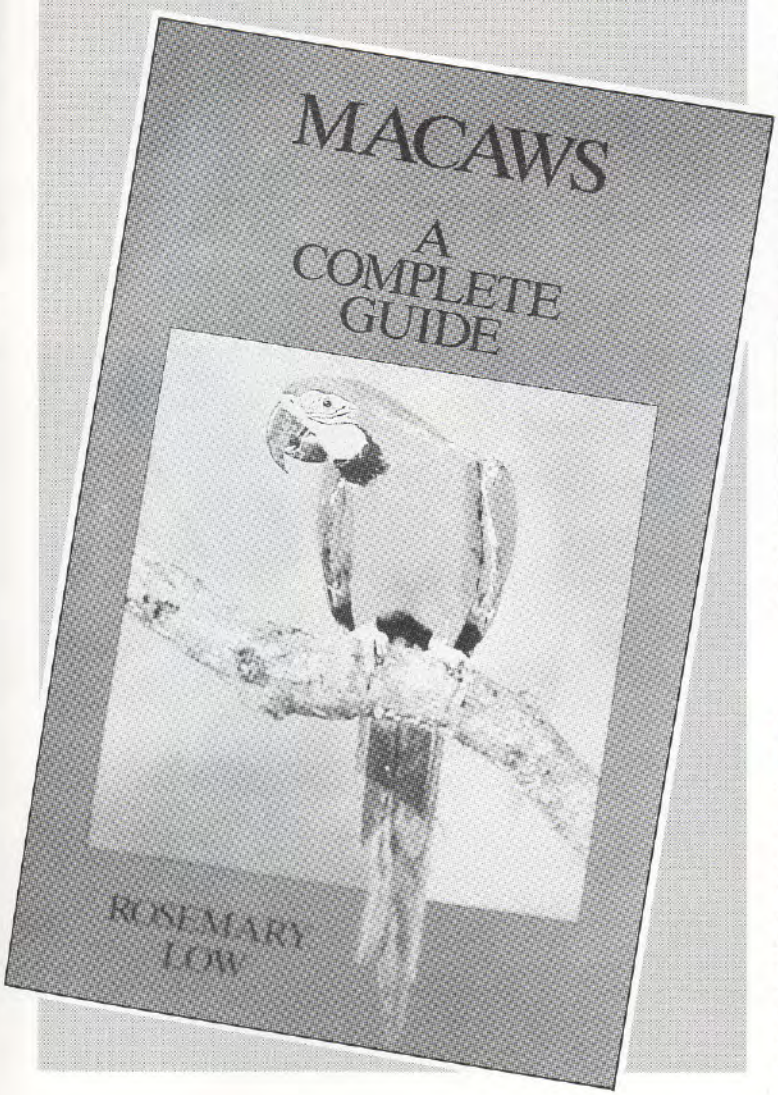
I should like to comment on what could be seen as a misleading statement concerning the International Captive Breeding Consortium for the St. Vincent Parrot *Amazona guildingii* and the Memorandum of Agreement which members of the Consortium have been asked to sign. This Agreement includes the clause "It is agreed that title to all *A. guildingii* (including those specimens bred in captivity) shall remain with or be returned to the Government of St. Vincent and the Grenadines". It is the title not the birds themselves which is being returned. The Consortium works closely with the Government of St. Vincent and the Grenadines who support the existence of an *ex-situ* population of *A. guildingii* as a back-up to the conservation measures it is taking to conserve what is now the National Bird. They are unlikely to request the return of any birds held legitimately outside the Islands. This may not extend however to specimens for which no export permission has been granted or those for which no verification of captive breeding can be given.

The results that Ramon Noegel and Greg Moss are achieving with *A. guildingii* at Life Fellowship are most encouraging and they are to be congratulated. As they point out, there are almost fifty *A. guildingii* known to be in captivity outside St. Vincent and the Grenadines. It can only be hoped that more of these can contribute to founding a viable captive population. Since 1980 the International Consortium has been working to try to assist in bringing about this goal.

Yours sincerely,

D. F. Jeggo
Consortium Secretary and International Studbook Keeper (St. Vincent Parrot)

BOOK REVIEWS



AVI-INDEX – Australian Aviculture over 43 years

How many hours have collectors of avicultural magazines spent thumbing through back issues in search of an elusive article? Many, I suspect. In the case of *Australian Aviculture*, however, you will never need to do this again. Published by the Avicultural Society of Australia for the past 43 years, the Society has issued *Avi-Index* to commemorate its 50th anniversary.

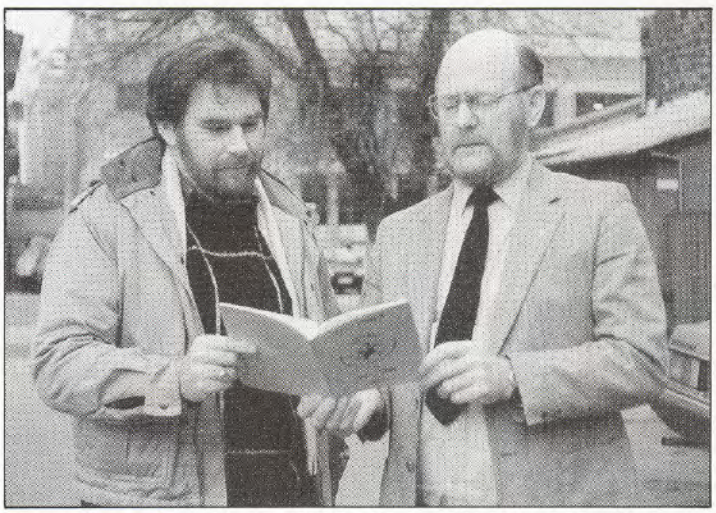
The editors, Charles A. Hibbert and Kenneth H. Kleesh write in their Introduction: "This index has resulted from the inescapable conclusion that a vast amount of useful and important information lay hidden and untapped in past editions of *Australian Aviculture*." They therefore indexed all relevant information (omitting such items as annual reports) under 35 different headings. Examples are Aviaries, Aviculture overseas, Biology, Cockatoos, Conservation, Diseases, Feeding, Finches–Australian Finches – General, Mutations, People in aviculture, Pheasants, Reviews–books, Zoos, etc.

Under each of these headings is a list of appropriate subjects with the title of the article, name of author and volume and page reference. Whatever the subject referred to, a wealth of information can be obtained by referring to the relevant issues. If these are not in your library, you can apply to the society's book steward for a back number or use the Avi-Index Photocopying Service to order copies of the article you require.

The Avicultural Society of Australia is to be highly commended on its initiative in producing such a useful index (illustrated with line drawings) and for making a photocopying service available. This is an extremely useful service to aviculture in general. Other avicultural societies or independent publishers of avicultural magazines please take note! How many could do better than to reference the 3,318 articles referred to in the *Avi-Index*?

This publication costs Aust$10 including postage anywhere in the world. Airmail postage costs an additional $2. It can be obtained from: Ian Grant, 242 Civic Parade, Altona, Victoria 3018, Australia.

by Rosemary Low



Graeme Phipps, Senior Curator of Birds, Taronga Zoo, Sydney, New South Wales (left) and Charles Hibbert, co-compiler of the Avi-Index – with a copy of the book prior to the official launch.

MACAWS: A Complete Guide by Rosemary Low

This book is hot off the press, and is exactly as the title suggests: it is indeed a complete guide to every aspect of Macaws. Accommodation, feeding, health care, breeding, conservation – it's all covered comprehensively, with Rosemary's unique combination of common sense, practical knowhow, and erudition. The information is up-to-date, and the photographs are first-rate. I can thoroughly recommend this book, and it is outstanding value at £12.95. If anyone has difficulty locating a copy, it can be ordered from the World Parrot Trust for £15.00 inc. post and packing. (Or US$30.00 inc. p. & p.)

by Mike Reynolds

INTERNATIONAL NEWS ROUND-UP

Call for Information
on the Cyanoliseus genus

– the common species names being the Lesser, Greater, and Andean Patagonian Conures. As a realistic effort to preserve these species and lobby on their behalf is first based on the acquisition of detailed knowledge, I am seeking your help.

All topics relating to the Patagonian are wanted including: surveys and current status in the wild and in captivity: worldwide import statistics: historical data: records of crop damage and slaughter: wildlife laws in Chile and Argentina, Pacheco's Disease incidents involving Patagonians: development projects in their range: captive breeding techniques and success rates: and authentic, dated photos of the Greater and Andean Patagonians. Although I would prefer materials to be in English, all languages will be accepted and later translated. (Please indicate the language on the first page.)

If necessary, I can arrange to refund your postage and photocopying costs. However, my resources are extremely limited and I am not currently seeking funding. I would be grateful if you would consider the forwarding of any information as your donation towards the preservation of psittacines. If reimbursement is essential, please correspond first to state the amount needed and describe the materials involved.

I'd like to thank you in advance for your help and compassion for this species' preservation. During 1990 and 1991, all correspondence and papers should be directed to the address below via air or surface mail. Please use Registered mail for any valuable or only-copy-available documents.

Patagonian Information
Deborah Pergolotti
P.O. Box 465, Gordon, NSW 2072
AUSTRALIA
fax # +61 (2) 499-2477

JACQUOT EXPRESS – NEXT STOP, ST. LUCIA

You may well have noticed in "Psittascene" we have, on occasion, made reference to the "Buses for the Caribbean Project". Just what the project is and how you can help is now revealed.

BACKGROUND

The idea behind the project belongs to RARE Centre for Tropical Bird Conservation. RARE is committed to the conservation of Caribbean parrots and their habitat. By using an island's 'National bird' RARE has, through its education campaign, enabled most of the local people to recognise the importance of conservation in their lives – now and in the future. By using puppet shows, school visits, songs, posters etc. RARE has changed the people's and the government's attitudes towards conservation from indifference to appreciation and action. Regional laws have been revised and reserves declared. In 1977 only 100 St. Lucia Parrots existed on the island – today there are more than 250; this increase has not come about by chance but as a direct result of RARE's work. The Conservation Bus is the next phase...

CONCEPT

The concept of the bus is a simple one – to create an interpretive centre able to convey its conservation message to those who would benefit most, the local rural population of the area. A normal static interpretive centre would reach a proportion of the people but not necessarily those who would benefit most from its displays and message. The solution is a mobile centre – THE CONSERVATION BUS.

Wherever there is a road, the bus will travel...

* It can be parked in school fields, outside churches, or by the side of the road.
* Flamboyantly painted and squawking like a parrot, it will be sure to attract attention.
* It can remain in the village or a community for a day or a week, as long as necessary before moving on.
* The exhibits can be changed periodically so that the bus always carries a fresh message out into the community.

JACQUOT EXPRESS

The first bus is destined for the island home of "Jacquot" the St. Lucia Parrot. Amongst the many displays inside the bus will be one illustrating the consequences of deforestation, especially regarding its effect on water supplies. Another will deal with the need to preserve the diversity of the forests. Each display will require some interaction from the guest and each will show what they can do to ensure the future of the islands. The bus will also be able to provide audio visual experiences in the form of slide and video presentations. Periodically the exhibits will be changed to highlight other conservation topics

but all topics will be presented by "Jacquot" the national bird. Future topics may include sustainable agriculture, the value of the forest, family life, education etc.

PROGRESS TO DATE

In October 1989 when the World Parrot Trust was born (hatched!) we were in communication with RARE's Caribbean Programme Director, Paul Butler to offer our help in the Caribbean. Paul suggested two ways in which we could help – the first was to provide the posters and badges for the St. Lucia campaign and the second was to help in finding Conservation Buses for St. Lucia, St. Vincent and Dominica. Both at that time were tall orders for a fledgling organisation, but thanks to the support the trust has received worldwide, we have already been able to fulfil the first request and on the 12th October (almost a year to the day from the trust's launch) we took delivery of the first bus, a second hand Bristol LHS vehicle from the Western National Bus Company. Geest have kindly agreed to ship the completed bus to St. Lucia with a 50% concession on freight charges, and the Department of Forestry in St. Lucia has undertaken to cover all insurance and maintenance charges associated with the bus on a yearly basis.

The beauty of this bus is that it is only 24' long, and will therefore be able to negotiate St. Lucia's precipitous roads. We will no doubt have shots of the transformed bus in a later 'PsittaScene'.

All that now remains to be done is to fully equip the bus for its role on the island of St. Lucia. This is where you the membership can help. Listed below are some of the items the bus will need;

One generator (probably a Honda EX1000)
Two directional horns
One Kodak projector/recorder (AV570AF)
Five universal slide trays
One cassette recorder
One vocal microphone
One 72" x 96" screen
One Display Sciences AV505 VHS projector (or equivalent)
Ten Video Cassettes (AMERICAN SYSTEM)
Five Avidex endless cassettes
Twenty folding metal chairs
One four drawer filing cabinet (or two two drawer)
One skyline display system
One colour television
One video recorder (AMERICAN SYSTEM)

If you have any of the above items in good condition that you would like to donate to the project or if you would like to help pay for the purchase of any of these items please contact;

David Woolcock at the trust address or telephone him on 0736 753365 for further details.

Your help will be acknowledged both through "PsittaScene" and on the vehicle itself.

Any members with special expertise and some free time to commit are encouraged to get in touch.

THE SCARLET MACAW IN GUATEMALA

by Dr. Johanna Motta Gill

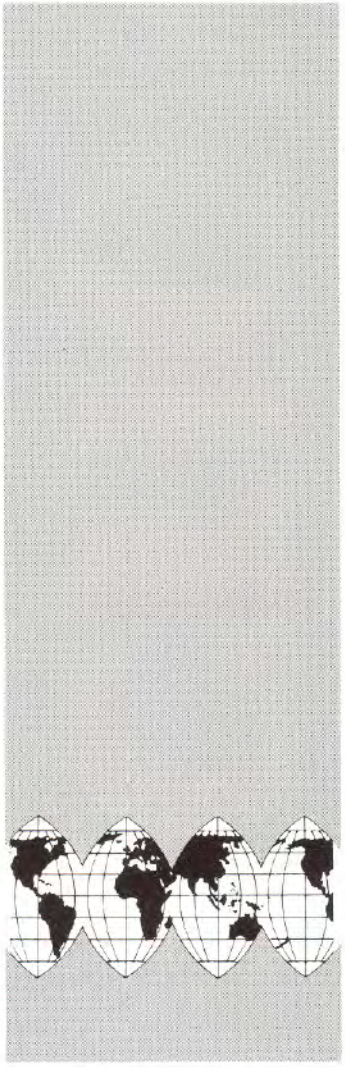
Dr. Johanna Motta Gill is Wildlife Consultant in the Wildlife Department of INTECAP (Instituto Tecnico de Capacitacion y Productividad). She is currently on the International Training Programme at the Jersey Wildlife Preservation Trust.

Guatemala is a small Central American country that, like other developing countries, is losing vast areas of jungle. The Scarlet macaws (*Ara macau*) that once were very common to see, flying free in the wild, are now being isolated to small areas of forest for feeding and nesting, and in these places they are also victims of indiscriminate trapping. In some instances, native people can get more money from selling macaws than from cultivating their crops, and this situation is of course related to the high prices paid for these birds in many countries, coupled with continuing inadequate controls on trade.

Captive breeding centres in the birds' countries of origin should be used to help the actual wild population to survive, in one way by helping to supply a better-policed market.

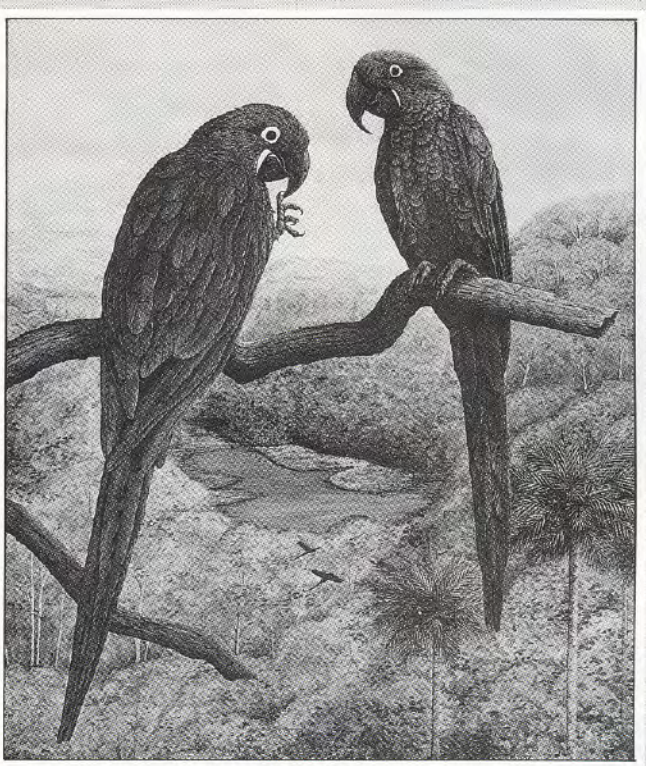
Hoping to help this vividly-marked member of the native Guatemalan fauna, the National Institute of Training and Productivity (INTECAP) is trying to establish a Scarlet macaw breeding programme within the species natural habitat. This project will be conducted in Peten, which is the biggest district of Guatemala and still has slightly less than sixty percent of its tropical forest cover. A major objective of this project is not only to breed the species, but one day to reintroduce the new birds into the wild. This is not to be undertaken lightly, and INTECAP will first of all be assessing the status of the Scarlet macaw in the wild by census work. However, it is already clear that there are isolated forest areas still standing which used to have birds, and which could well be suitable for releases. In this context, therefore, a final major aim of the project is to promote the conservation of the Scarlet macaw's habitat.

One day we hope to see again this marvellous bird flying free through the Guatemalan sky.



ACTION PAGE

PROJECTS, IDEAS, OPPORTUNITIES AND NEWS FOR MEMBERS



'The noblest of them all'
by NICHOLAS

Order our Outstanding Hyacinth Macaw Picture

We now have this important limited edition print ready for immediate despatch. Please consider it as an impressive Christmas gift. It will come to you in a high quality double mount, ready to frame. The cost is £110 plus £8 for post and packing in the UK and Europe, or US$195 plus $15 post and packing in the USA, Canada, Australia. Alternatively, in the UK only, we can supply it framed for £150 plus £10 delivery costs.

PLEASE NOTE: THE NO.1 PRINT OF THIS LIMITED EDITION WAS AUCTIONED AT THE PARROT CONVENTION IN TENERIFE AND WAS SOLD FOR £1000! IT LOOKS AS THOUGH THIS PICTURE WILL NOT ONLY BRING YOU PLEASURE AND HELP THE HYACINTH MACAW, IT WILL BE A GOOD INVESTMENT AS WELL.

URGENT STOP PRESS

Stolen Birds

The following birds were stolen from Harewood Bird Garden, Yorkshire, UK, on Sunday 11th November:

2 PAIRS LILACINE AMAZON
Ring Nos: 1H00649
1H00730
1H00610
1H00683

1 MALE ILLIGER'S MACAW
Ring No: 76DWW89

1 MALE CHATTERING LORY
Ring No: 1G00531

PAIR SCHALOW'S TOURACO

1 WHITE CHEEKED TOURACO

✪ ✪ ✪

1 SCARLET MACAW was also stolen from Whipsnade Park, Luton, UK, on Thursday 8th November.

If any of these birds are found please contact your local Police immediately.

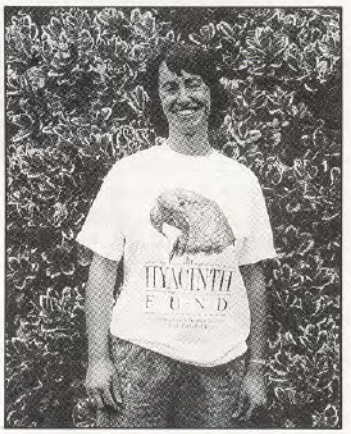
Dynamic Action by Members

Bird Shows of various types offer a good opportunity for members to take a stand on behalf of the trust. We were very generously offered a stand at the recent Stafford Show of The Parrot Society, where we met many hundreds of parrot people, signed up a useful number of new members, and sold a lot of our T-shirts.

Members in California and Toronto are also setting up displays for us at bird shows early in November, and this is the best possible way to spread the word about the World Parrot Trust and its objectives.

In October Mrs. Juim Fiege, Tel: (31) 8859 55038, spent four days covering the PAKARA show in Holland, and emerged with 23 new members, almost £1,000, and a plan to start a Benelux Support Group for the trust.

We would very much like to hear from members who are able to represent us at any MAJOR bird shows, virtually anywhere in the world. We can supply a copy of our 'Help Save the Parrots of the World' board (see 'PsittaScene' Vol. 2 No. 3 Page 8), membership leaflets, Hyacinth Fund T-shirts, our Hyacinth Print to be raffled or auctioned, etc. Let us know.



Make it a T-Shirt Christmas

We've previously referred to our Hyacinth Fund T-shirt which was a great success at the Tenerife Parrot Convention. We have a stack of them now ready, printed in full hyacinth colour on the best quality American shirts. We've been able to reduce the price to £9.95 (plus £2 post and packing in UK and Europe), or $20.00 (plus $5.00 post and packing to the US.) The picture shows Judith Venning, our efficient administrator, wearing this superb shirt. The original World Parrot Trust shirt is also available at the same price.

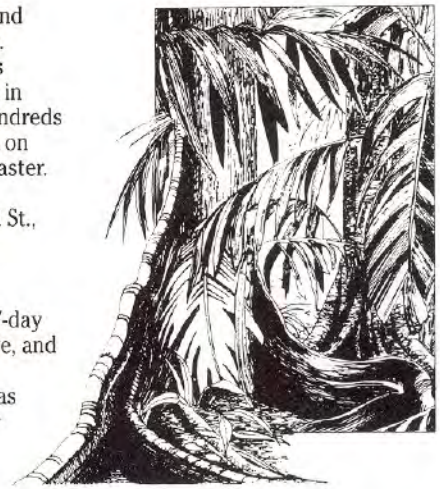
Please order plenty for your parrot-crazed friends this Christmas; send us a card and the address and we'll mail them direct. Please state sizes: XL, L, M, or S.

ACTION PAGE

Take a Tour to Dominica

Traveller's Tree, a London-based tour operation, takes small groups to the beautiful, undisturbed island of Dominica in the Caribbean – home of the endangered Imperial Amazon and Red-necked Amazon parrots. This company supports the Project Sisserou, which is purchasing a tract of rainforest where the parrots live. All Traveller's Tree tours visit the area with a local expert as guide, and have always sighted the birds.

Traveller's Tree also takes natural history tours to Bahia in North East Brazil, home of hundreds of bird species. Places remain on tours from January through Easter. For a free brochure contact Traveller's Tree, 116 Crawford St., London W1H 1AG.
Telephone: 071 935 2291.
Fax: 071 486 2587.
Prices from $1,800 for 15 to 17-day tours, are virtually all-inclusive, and include the services of ornithologists, foresters etc., as lecturers and guides. You may like to know that 166 species of birds have been recorded in Dominica – the highest number of any island in the Lesser Antilles.



Parrot Studbook Keepers

Once again we publish a list of Studbook Keepers. All readers holding these species would do well to register their birds with the relevant studbook keeper. Holders of Buffon's Macaw (Ara ambigua) are especially asked to contact David Woolcock at Paradise Park.

PALM COCKATOO *R*
GREEN-CHEEKED AMAZON *R*
Dr. Roger Wilkinson, North of England Zoological Society, Chester Zoo, Caughall Road, Upton-by-Chester, CH2 1LH.

MOLUCCAN COCKATOO *R*
Rob Colley, Penscynor Wildlife Park, Cilfrew, Neath, Glam., S. Wales.

GOFFIN'S COCKATOO *R*

SCARLET MACAW *R*

BUFFON'S MACAW *R*

RED FRONTED MACAW *R*
David Woolcock, Paradise Park, Hayle, Cornwall TR27 4HY.

THICK BILLED PARROT *R*
David Jeggo, Jersey Wildlife Preservation Trust, Les Augres Manor, Trinity, Jersey, Channel Islands.

HYACINTH MACAW *R*
Colin Bath, Paignton Zoological & Botanical Gardens, Totnes Road, Paignton, Devon.

GOLDEN CONURE *I*
Alan Lieberman, San Diego Zoo, PO Box 551, San Diego, California, 92112-0551 USA.

GOLDEN CONURE *R*
RED-VENTED COCKATOO *R*
BLUE-STREAKED LORY *R*
c/o The Parrot Society, 108b, Fenlake Road, Bedford MK42 0EU.

R = UK REGIONAL STUDBOOK

I = INTERNATIONAL STUDBOOK

Another innovation by the trust – we're offering a parrot news service to UK media.

PARROT BUREAU

World Parrot Trust

At last! A voice for the parrots of the world!

The World Parrot Trust launches the ...

PARROT BUREAU.

This is a news and information service intended for use by the media generally, with the aim of supplying reliable, scientifically correct information on everything to do with parrots: their welfare, their status in the wild, the need to work for their conservation, etc.

We aim to understand the point of view of everyone interested in parrots: pet owners, parrot breeders, conservationists, zoologists, traders, government bodies, and international authorities. In everything we say or do, however, **the welfare of the parrots comes first.**

Over 100 of the 320 or so species of parrot are now endangered. There is great public interest in these charismatic birds, and this interest can have a beneficial effect on the survival prospects of other species, and indeed on whole ecosystems. It is important that accurate information be available, and the **World Parrot Trust** - a specialist, international charity - is able to draw on the expertise of its 1000-plus members worldwide.

If you need any information on parrots, please don't hesitate to call the **PARROT BUREAU** on 0736 753365, or write or FAX us. Ask for Judith Venning, David Woolcock or Michael Reynolds.

NOTE: This bulletin is accompanied by a copy of our latest "PSITTASCENE" newsletter and a leaflet describing THE HYACINTH FUND.

Bulletin No 1 - 20th November 1990

PARROT BUREAU
An information service from:
World Parrot Trust
Glanmor House
Hayle, Cornwall TR27 4HY
TEL No: (0736) 753365
FAX No: (0736) 756438

"If man can save the parrots—he may yet save himself."

Regd. Charity No: 650044

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.***

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.

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 The World Parrot Trust

or ☐ 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.

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

Psitta scene

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