

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

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

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

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

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

P.J. Butler

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

## HYACINTH MACAW PROJECT

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

### A. STATEMENT OF CONSERVATION NEED

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

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

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

### B. SIGNIFICANCE OF CONSERVATION ISSUE

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

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

### C. BACKGROUND INFORMATION

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



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

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

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

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

### References:

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

### D. OBJECTIVES

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

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

### E. METHODS/PLAN OF ACTION

#### 1. Biology and ecology

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

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

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

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

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

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

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

#### c) Nesting locations and breeding habits

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

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

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

## 2. Tourism

### a) Ecological components

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

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

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

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

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

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

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

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

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

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

## F. ANTICIPATED PROJECT FOLLOW-UP

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

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

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

(See our Action Page, Ed.)

# International News Round-Up

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

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

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

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

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

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

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

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



## Place an advertisement for the World Parrot Trust

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

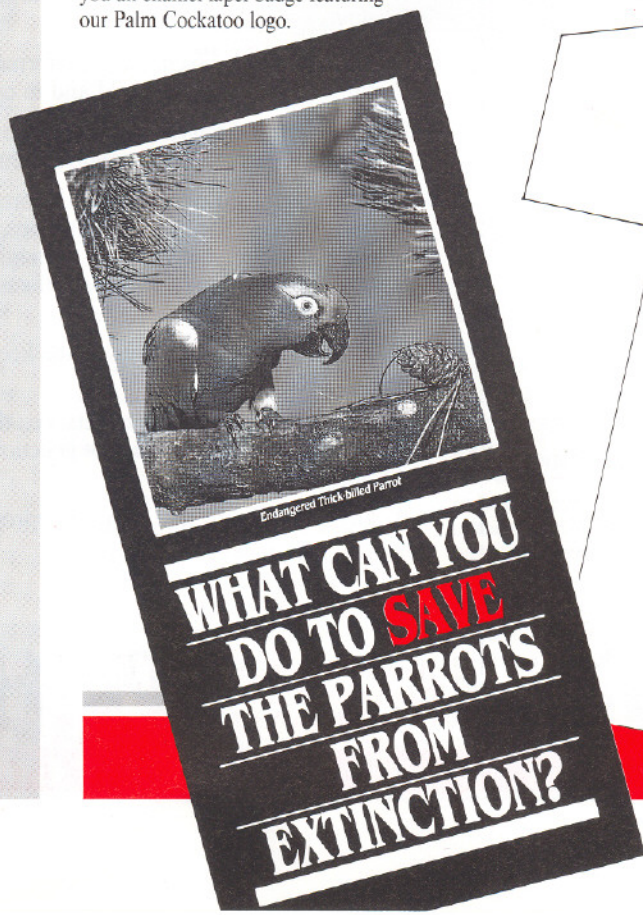
### HELP SAVE THE PARROTS OF THE WORLD

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

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

## New Membership Leaflet

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



# PROJECTS, IDEAS, OPPORTUNITIES AND NEWS FOR MEMBERS

## Help the Hyacinth Macaw Project

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

## Photographs

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

## Book Reviews

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

## Project Update

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

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

## New T-Shirt

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

