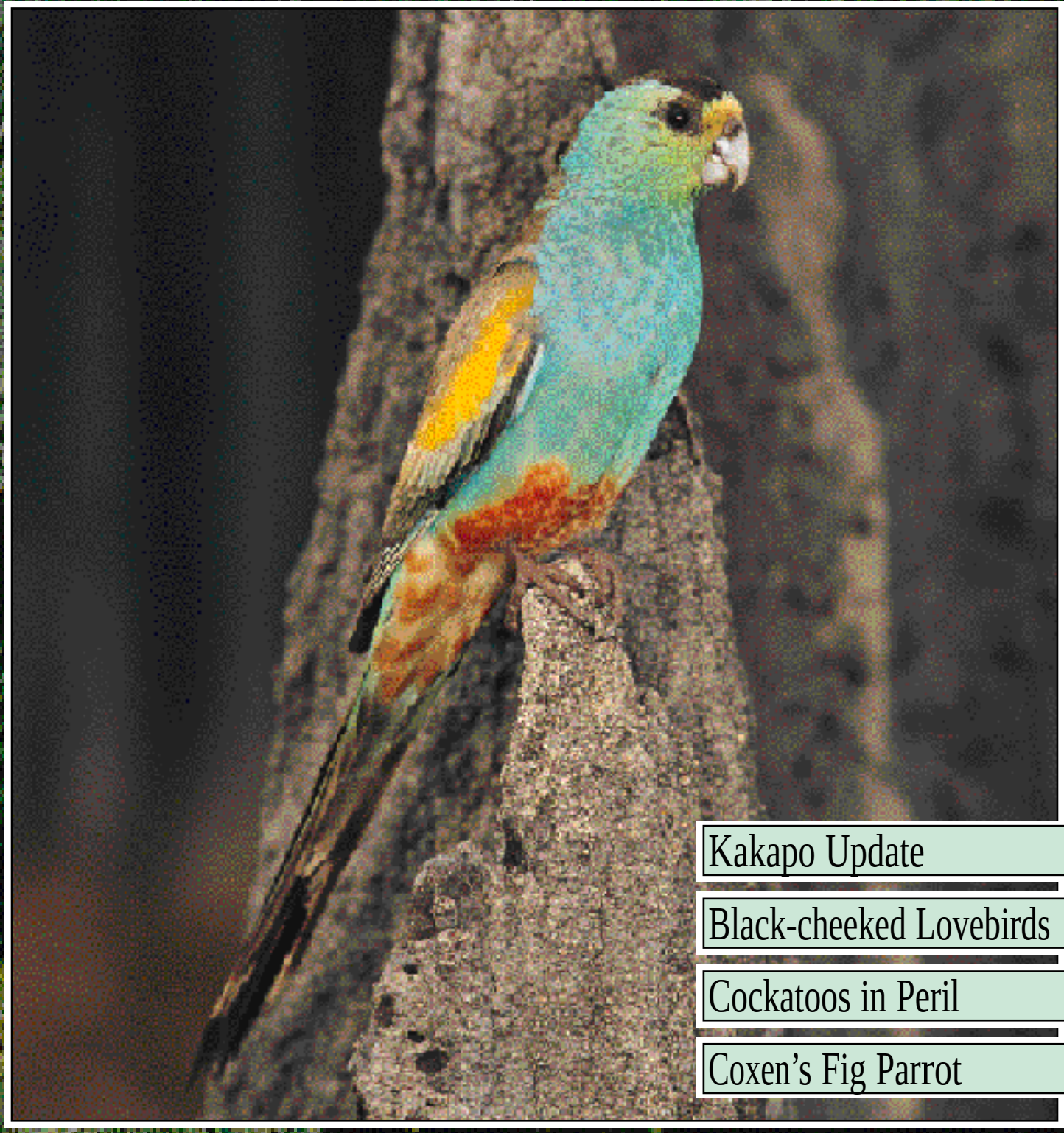
Psitta

PROMOTING EXCELLENCE
IN PARROT CONSERVATION
AVICULTURE AND WELFARE

World Parrot Trust
in action

Vol. 11 No.2 May 1999



Kakapo Update

Black-cheeked Lovebirds

Cockatoos in Peril

Coxen's Fig Parrot

psittacine (sit' ă sîn) belonging or allied to the parrots; parrot-like

Psitta Scene

Editor
Rosemary Low,
P.O. Box 100,
Mansfield, Notts.,
United Kingdom
NG20 9NZ

CONTENTS

GOOD NEWS ABOUT PARROTS!

Kakapo Update

February 1999

by DON MERTON, National Kakapo Team

Fifty five Kakapo are known to survive - 21 females: 34 males. These are currently located on six off-shore islands. Apart from nine birds raised on the islands, all (46) have been relocated since 1975 to islands to protect them from introduced predatory mammals. No natural population is known to remain.

Recent developments within the Kakapo recovery programme include implementation of a new supplementary feeding regime based on a two-yearly pulse rather than an annual one; a decision to remove Kakapo from Little Barrier Island; and the transfer of all birds from Whenua Hou/Codfish Island to Pearl Island for the duration of a rat eradication operation on Codfish. During 1998, 41 of the 55 kakapo were in fact transferred between islands (see distribution table below). Some of the birds temporarily held on Pearl Island are currently breeding - this is the third successive season during which breeding has occurred.

One Kakapo is known to have nested during the 1998 season - the first to have bred on Maud Island. Three eggs were laid and three chicks, including one female, raised. The latter is the only parent-raised female, and one of just two females raised since the 1981 breeding season.

One adult death is known to have occurred in 1998. The male "Ken" died in July as a result of complications from a transmitter hamess injury that occurred in mid-1995. This is the only known adult death in the last five years. One other male ("Snark") has not been seen since 1990 and is believed to have died.

Little Barrier Island

Five males remain on Little Barrier.

The Kakapo Management Group and Kakapo Scientific and Technical Advisory Committee resolved in March to remove all kakapo from Little Barrier Island (LBI). Over the last 16 years it has been shown that female Kakapo on Little Barrier must be intensively managed in order for them to breed successfully. However, Little Barrier is large (3,000ha) and extremely rugged, and it has proved impractical to manage Kakapo there intensively. Furthermore, with rat eradication soon to be attempted on LBI, temporary relocation of kakapo would have been necessary.

Three female Kakapo ("Wendy", "Heather" and "Jean") were transferred from LBI to Maud Island in May/June 1998.

During August 1998 one male ("Stumpy") was transferred to Maud and two males ('Luke" and "Merty") were transferred to Nukuwaiata/lnner Chetwode Island along with a male ("Jimmy") from Maud. The fertility/breeding fitness of the latter three males is in question. Five males known to remain on Little Barrier are to be moved to Codfish and Pearl Islands in early 1999. No females are known to remain. However, two females and a male, not seen since their transmitters failed (2) or were removed (1) between 9 and 16 years ago may still survive. No sign of the missing male ("Snark") was found during an intensive search of the LBI arena in late January 1999 when all known males were active there. Mating sign found at the summit track and bowl system (court) in early February indicates that at least one of the "lost" females may still survive. Arrangements are being made for a dog team to search for any nest.

At least 15 of the original 22 Kakapo released on Little Barrier in 1982 still survive, giving an overall survival rate averaging 98% per annum.

Maud Island

Fourteen birds (6 male and 8 female) are on Maud.

Two male and one female young were raised in 1998. "Flossie" and "Richard Henry", transferred from Little Barrier to Maud Island in July 1996 to enhance their breeding prospects, mated on the night of 30 January 1998 and Flossie laid three eggs between ~4-10 February. Three chicks were raised. At 24 days, "Sinbad" (the youngest and

COVER PICTURE

Golden-shouldered Parrot Psephotus chrysopterigius

This beautiful parakeet remains one of Australia's most endangered birds. Two small populations remain in tiny areas of Cape York Peninsula. In our issue of May 1997 Stephen Garnett and Gabriel Crowley describe the threats affecting this species, and the efforts to help it survive. This superb picture was kindly supplied by Len Robinson.

smallest chick) was removed from the nest for hand-raising at Burwood Bush. He was returned to Maud when three months old, held in a large open-topped pen and trained to use a "cat-door". He was released to free-range in late November - the cat-door providing him with exclusive access to supplementary foods within the pen. His male sibling ("Gulliver") left his natal home-range in October when ~8 months old. The female ("Kuia"), now 11 months old is still within Flossie's home-range.

This was the first breeding recorded on Maud and indicates that Kakapo can adapt to and breed effectively in an alien environment - an exotic pine plantation on a small (309ha), heavily modified island. This, and the successful transmission of genes from "Richard Henry", the last known Kakapo from the NZ mainland, into the new generation and the survival of all three chicks - including a female - is cause for real optimism.

The Pinus radiata plantation continues to be a favourite feeding location, especially for females - Kakapo feed on pine foliage.

There has been little activity on the Maud arena this season and no booming has been heard.

Nukuwaiata/Inner Chetwode Island

Three males are on Nukuwaiata.

During August two males ("Luke" and "Merty") were transferred from LBI to Inner Chetwode/Nukuwaiata along with one male ("Jimmy") from Maud. Fertility of the former two is suspect, and Jimmy has a leg injury which may compromise his ability to mate successfully.

Whenua Hou/ Codfish Island

One male is known to remain on Codfish.

All 30 transmitterised Kakapo were removed from Codfish in April/May to alleviate any risk from poisoning during a rat eradication operation there during the winter. Twenty-six birds (13 females: 13 males) were transferred to Pearl Island, two males to Anchorage Island, one male ("Ken") to Maud Island in April, and one female ("Nora") to Maud in May. Two pulses of anticoagulant bait were broadcast on Codfish by Southland Conservancy in August. Kakapo are to be returned to Codfish in the autumn of 1999.

This is 'Hoki', the famous hand-reared Kakapo. Photo: Gideon Climo

Pearl Island

Twenty six Kakapo are currently on Pearl.

Males on Pearl have developed track and bowl systems and since early December all ten adult males have been heard booming. Signs found since 3 January indicate that eight matings have occurred. Two females have since laid: "Susanne" laid two eggs in mid January, and "Alice" laid three in late January/early February. Because of the high risk of predation by weka and rats, eggs were removed soon after laying for artificial incubation - two eggs, Alice's second and third, are developing! Never before has laying occurred so soon (~9 months) after translocation.

Anchorage Island

Six males, suspected of being infertile or of low fertility are being held here. They will be placed on Pearl Island once Codfish Island birds are returned to Codfish.

Stewart Island searches

With the discovery in mid-1997 of a "new" female on Stewart Island the possibility existed that further individuals might persist in the vast scrublands of southern Stewart Island. Two further searches were therefore mounted in this area (15 July - 12 August and 26 August - 9 September 1998), and a possible sighting of a Kakapo near the northern end of Mason Bay by a deer stalker was checked out. No kakapo or Kakapo sign was found. It has been recommended that one further search be carried out - in the Pegasus Creek catchment. This is within the species' former range but has not been thoroughly checked for some years.

Diet and feeding regime

A new feeding regime simulating more closely the sporadic "masting" cycles of key natural foods was introduced in June 1998. Whereas birds had previously been supplementary fed throughout the year or pulsed on a 12-monthly cycle, the current regime is based on a two-yearly cycle with foods being withheld for much of this period. Most Maud birds ceased receiving supplementary foods in June 1998 and will receive no food supplementation until the spring of 1999. Hopefully, a rising plane of nutrition at this time will stimulate breeding in the autumn of the year 2000.

Kakapo known to survive : February 1999

	Female		Male		
	Subadult	Adult	Subadult	Adult	Totals
Fiordland	Believed extinct since 1987				
Stewart Island	Population relocated 1980-97				
Whenua Hou				1	1
Maudlsland	1	7	2	4	14
Little Barrier Island				5	5
Nukuwaiata				3	3
Pearl	1	12	3	10	26
Anchorage	-	-		6	6
TOTALS	2	19	5	29	55

Inspired with a Sense of Wonder

by ROSEMARY LOW

In mid-April I was privileged to spend two days at Burwood Bush in South Island. It is here that the Kakapo chicks are being hand-reared. I was en route for Australia, a trip which I had planned in January. At the time it was not known whether Kakapo would lay this year. Never, since intensive management of this species has occurred, have there been chicks in three consecutive years. Nevertheless, I was optimistic and my desire to see a Kakapo chick was so strong I decided to plan my journey with a stop-over in South Island. Don had given me the go-ahead to visit the rearing unit.

I followed the events of the previous weeks with enormous interest. On March 12 Don had faxed me: "There should be several chicks by the time you arrive." When it became clear that I would be seeing seven chicks, I could scarcely believe my luck. But above all I was elated that this was a season to write home about. That the Kakapo population had, within the space of five weeks, increased from 56 to 63. Of course, no-one was "counting their chickens" yet and, sadly, one chick was to die, but the hatchings represented significant progress in so many respects that there was good reason for elation.

Two of the three female chicks bred from Lisa – the female rediscovered with eggs after 13 years with no sighting.

My first sight of a Kakapo chick, a 42 day old male, was one which I will always remember. Fully feathered, he lay sleeping peacefully, in an air-conditioned room. With other parrot chicks, maintaining a high enough temperature is very important. With Kakapo, once they are feathered the priority is in keeping them cool.

When I saw Lisa's three chicks 1 experienced a profound sense of wonder. All three are females! In this one plastic box, sleeping with heads and feet intertwined, was the boost which the Kakapo Conservation programme needed so desperately. The scarcity of young females was the major threat to the survival of the species. Without Don's insistence to search Little Barrier with dogs yet again it would have been a "one-female" season. I gazed for a long time at these three, with their enormous feet, prominent ear holes and green feathers just emerging. The dark grey second down was erupting and the light grey first down was still fairly thick. The seven chicks ranged in age from 17 to 42 days. A notable characteristic was their very deep breathing.

A consultant veterinarian, Alison Archambault, was working with the chicks at the time of my visit. She comes from Oregon but has strong family ties with New Zealand, where she spent her childhood. She was particularly concerned with good hygiene practices and uncontaminated water sources.

Don Merton is delighted with the progress made this season. He told me: "We have progressed so much in our capabilities and knowledge. Having reared chicks from the egg for the first time, in future we will be pulling more eggs as a means of boosting productivity. However, we will aim to leave eggs in the nest for the first week or ten days as eggs incubated by the female for this period proved easier to hatch."

For me, seeing Kakapo chicks was not only the fulfilment of a personal ambition; it reinforced my belief that certain aspects of aviculture can be applied to conservation with highly successful results.

Kakapo chick bred from "Zephyr".

Consultant vet Alison Archambault from Oregon.

BAD NEWS ABOUT PARROTS

Cockatoo Poisoning - A Threat to our Wildlife

Birds Australia Media Release (edited by WPT)

Birds Australia expresses great concern about recent statements made by the Victorian Minister for Conservation and Land Management, the Hon Marie Tehan MP, regarding changes to methods for controlling Cockatoos, Corellas and Galahs.

These changes include permitting the use of a variety of poisons up to Schedule 6, including organophosphate and other pesticides designed for completely different purposes, on baits and using deployment methods according to the whims of individual farmers. Guidelines regarding their use to poison birds would be largely useless since little is known about which chemicals or cocktails, what dosage levels, or what bait treatment methods would be most target-specific. Departmental supervision will be minimal and largely useless in cases of abuse.

Although Birds Australia believes that most farmers will be responsible about adhering to the law, some landowners may take advantage of relaxed controls to target protected wildlife such as kangaroos and wallabies, raptors, parrots, corvids, Brolgas and grain-eating waterfowl.

The destruction that would flow from permitting farmers to use a wide variety of poisons will not be limited to pest cockatoos, and will certainly kill many harmless, beneficial and even, possibly, threatened non-target species. It especially poses the serious threat of secondary poisoning of native mammals and of birds of prey.

The Minister's statements run contrary to a report published in 1995 by the Environment and Natural Resources Committee of the Parliament of Victoria, 'Problems in Victoria caused by Long-billed Corellas, Sulphur-crested Cockatoos and Galahs' which rules out poisoning as an effective solution to the problem.

The report, which is based on submissions and expert advice made by Birds Australia, government departments, farmers, Landcare groups, as well as many other organisations and individuals, outlines measures to systematically control pest populations of Cockatoos WITHOUT the use of poison.

Birds Australia is completely opposed to the use of poison to control pest cockatoos. We suggest that there should be no departure from the recommendations of the 1995 report regarding control methods, and that a continuation of departmentally supervised trapping and euthanasia should not be superseded by less selective methods of destruction.

It is understood that the three species of cockatoos mentioned in the title of the Report may cause economic damage to some farmers in Victoria. Accepting that some form of control is necessary in some places at some times, such control should be selective enough to not endanger other fauna, nor pollute the environment. In the medium to long-term there is a desperate need to get away from the largely ineffective ad hoc reactionary measures that have been and are continuing to be used, and to develop and implement a comprehensive pest management strategy. There must be research conducted on the biology of the pest species as well as on more

For many farmers this bird is a pest.

lateral, environmentally benign and non-destructive methods of control that benefit both our bird populations and our farming community.

Hugo Phillipps, Birds Australia Conservation & Liaison, Australian Bird Research Centre, 415 Riversdale Road, Hawthorn East, VIC 3123, Australia.
Tel: +61 3 9882 2622.
Fax: +61 3 9882 2677.
Email: <conservation@raou.com.au>
Web Homepage: http://www.vicnet.net.au/~birdsaus/

Venezuela Plan For Parrots

CARACAS, Venezuela (AP) — Venezuelan wildlife officials outraged ecologists two years ago when they proposed raising money to protect the jaguar by selling licenses to hunt the endangered animal.

Now they want to protect tropical birds by legalising the capture and sale of some parrot species including the spectacular blue-and-yellow macaw, a symbol of the tropics.

Officials say the plan is scientifically sound, but a local Audubon Society official calls it "cockamamie."

Wildlife authorities say they can't control the thousands of people who hunt exotic birds throughout the South American country's vast rain forests, marshes and prairies and sell them on the black market.

So they've decided to let them hunt some species in the hope they'll leave alone the birds that are the most endangered.

The hunters will be allowed to capture over 2,000 parrots and 50 blue-and-yellow macaws. The birds are to be sold to zoos and private collectors.

Ecologists say they aren't completely opposed to such a programme but doubt that Venezuela's underfunded, understaffed and disorganised wildlife service can run it properly.

"We have no precedent throughout the world where sustainable use of parrots has been demonstrated to be viable,'' said Alejandro Grajal, head of the U.S. National Audubon Society's programme for Latin America and the Caribbean.

The real solution to the problem is enforcing laws that protect birds, he says. But enforcement is so lax that hunters openly sell parrots on busy highways.

Mirna Quero, head of the wildlife service, says the number of birds to be hunted is small and won't endanger the population. A census conducted by her office estimated the number of blue-and-yellow macaws at 1,500.

The Convention on for International Trade in Endangered Species permits similar programmes in other countries including neighbouring Guyana, which is allowed to export much larger numbers, she said.

Activists charge that the wildlife service's real motive behind such programmes, including the one to hunt jaguars, is to raise money to supplement their meagre budget - an allegation Quero denies.

Ecologists say that if the blue-and-yellow macaw population is killed off, Venezuela will lose a spectacular tourist attraction: the sight of hundreds of the birds roosting together on tree branches as they go to sleep at night.

MORE GOOD NEWS ABOUT PARROTS!

Critical discovery of Yellow-eared Parrot

by PAUL SALAMAN AND BERNABÉ LÓPEZ-LANÚS

In the twentieth century, we have witnessed declining wildlife populations of many species sensitive to landscape changes by humans. Of 353 species in the charismatic Parrot family, 30 percent are threatened with extinction, with one of the most endangered members being the Yellow-eared Parrot Ognorhynchus icterotis from the South American Andes.

At the turn of the century this magnificent parrot was documented as being 'abundant' in mountain forests over a vast area of the northern Andes. The Yellow-eared Parrot depends on wax palms - the world's tallest palm standing 40 meters tall - for nesting in their trunks, roosting on fronds at night and feeding on its fruit.

However, by the 1980s it was clear the population was catastrophically declining, as large flocks disappeared at an alarming rate. By 1991 only two flocks were known to survive, numbering fewer than 50 individuals in locations in Colombia and Ecuador.

Unlike most species of parrot, the Yellow-eared Parrot has very rarely been kept in captivity, and was represented only by two single birds. Presently none is know to survive in captivity. Effectively, the two flocks contained the entire global population and it was clear that without immediate conservation action, extinction was imminent.

This nest, the only one known, contains at least one chick. Photo: Bernabé López-Lanús

Forest Area Purchased

By the mid-1990s, researchers in Ecuador with Loro Parque Fundación purchased and protected a stand of palms and forest used for breeding by the last dwindling flock in Ecuador, yet the birds appear not to have bred in several years. In 1997, a flock of 24 Yellow-eared Parrots were observed in a historically well-known location in the Cordillera Central of Colombia. As a result, 'Proyecto Ognorhynchus' was instigated in Colombia by Paul Salaman and Niels Krabbe with Colombian and international support and financial aid. By June 1998, field surveys by Bernabé López-Lanús commenced to locate and protect the Yellow-eared Parrot, as well as mounting a sustained regional and international publicity campaign for the species. However, after 11 months of intensive searches over suitable areas of the Colombian Andes the parrot had not been located.

Parrot Awareness Campaign

A regional parrot awareness campaign with posters was undertaken with Proyecto Ognorhynchus by Corporación Regional Autónoma del Quindío (CRQ) and help from Corporación Regional Autónoma del Tolima (Cortolima). This campaign proved fruitful when Alonso Quevedo - a Colombian fieldworker studying the endangered Mountain Tapir (also dependent on the fallen fruits from wax palms) - reported a flock of 20 Yellow-eared Parrots on 13 December 1998. This report was forwarded to Bernabé López-Lanús and follow-up investigations ensued.

Two Flocks Discovered

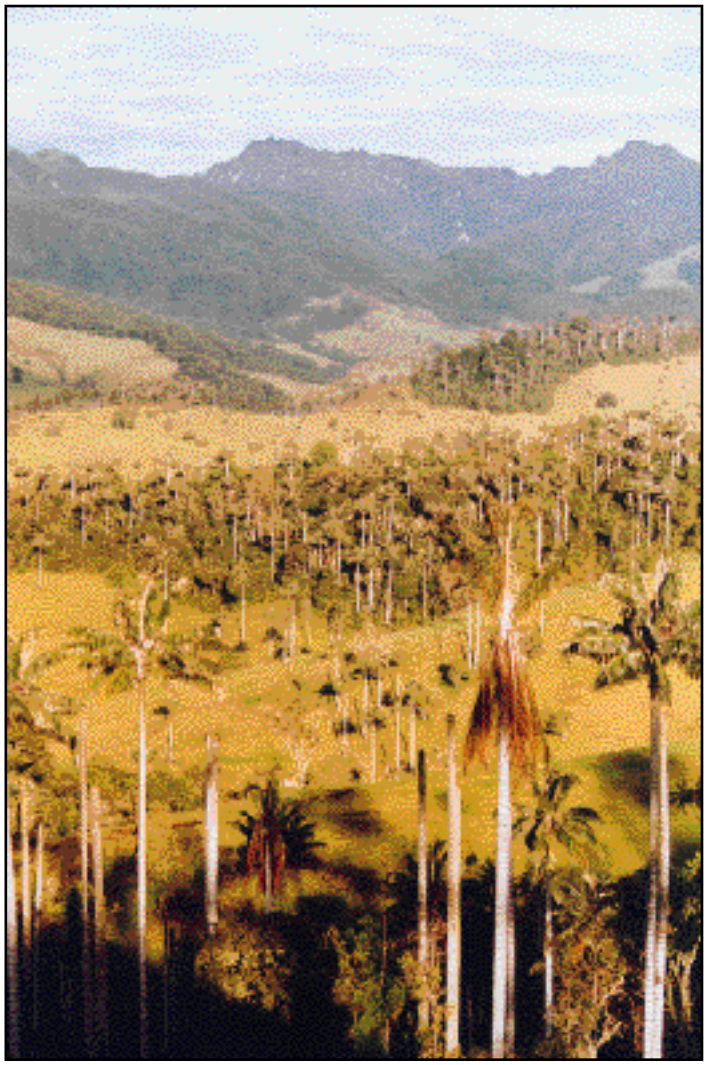
Official permission was granted to Bernabé and his assistant Julián Peña to visit the area from 18 April 1999. That same day, Bernabé witnessed a scene he thought 'science fictional' -

flying over wax palms and forest were two flocks of Yellow-eared Parrots, together totalling 61 birds in a remote location of central Colombia. No sooner had he discovered the flocks and where they roosted, but Bernabé found a nest site with a chick bird being fed by adults. After 11 months searching, Bernabé's dedication and enormous effort finally paid off. This is a phenomenal multiple discovery that exemplifies the areas importance for Ognorhynchus, and doubled the known population of the species. Over the course of the next week, Bernabé established a wealth of information, including:

- The active nest site has at least one chick, which is protected and fed by the parents and several 'helpers'. The nest site is being monitored continuously by Bernabé and Julián.
- The species nests and roosts in wax palm stands.
- A communal ritual was witnessed daily in the afternoon - whereby a flock visited a dead wax palm and all gnawed on the dry trunk. This behaviour is probably associated with bill sharpening and/or gleaning minerals.
- Local campesinos (mountain farmers) provided an extensive list of tree species which Ognorhynchus feeds on, which includes palm fruits as well as various other tree fruits present in the area.
- Campesinos in the study area were conservation-minded and did not hunt or collect Ognorhynchus.

A Critical Moment For The Species

This remarkable discovery comes at a critical moment for the species. Whilst 61 individuals represents the largest flock recorded in recent decades, the worrying aspect is that only one pair out of a possible 30 appears to be breeding. This is obviously not a sufficient rate to provide any optimism for the species' long-term survival. Furthermore, mounting threats in the form of hunters, illegal parrot collectors, and forest clearance continue to threaten the species. Its survival is dependent on the goodwill of local rural farmers and communities not to hunt or collect the species as pets. Fortunately, Proyecto Ognorhynchus has the enormous co-operation and enthusiasm of campesinos, local communities and regional government agencies, so that a long-term conservation action plan to protect and assist the species' survival can commence quickly.



The spectacular wax palm habitat of the Yellow-eared Parrot.
Photo: Bernabé López-Lanús

Yellow-eared Parrot (Ognorhynchus icterotis)
Photo taken by kind permission of R. Low & R.& V. Moat from Parrots in Aviculture

Can This Parrot Be Saved?

The race is on to save the Yellow-eared Parrot and ensure its place with us in the twenty-first century.

Proyecto Ognorhynchus is funded by Loro Parque Fundación, Zoologische Gesellschaft/Fonds für Bedrohte Papageien and American Bird Conservancy with World Parrot Trust and Barbara Delano Foundation, and supported in Colombia by Sociedad Antioqueña de Ornitología.

For further information check:
www.proaxis.com/~salaman

Black-cheeked Lovebirds in the Wild

by LOUISE WARBURTON, Research Centre for African Parrot Conservation, University of Natal

It's not easy to see a Black-cheeked Lovebird (Agapornis nigrigenis). By the time I finally saw my first flock, home, in the gentle green hills of Oxfordshire, seemed an unreality. This was May 1998 in south Kafue National Park, Zambia. Eight Lovebirds flew up from the ground, a silent flash of vivid green disappearing into the nearest canopy cover of small thorny balanites bushes.

The core distribution of these Lovebirds is found in a disjointed belt of mopane woodland, between the Zambezi River to the south and Kafue River in the north. A small break in the mopane between these two catchments seasonally divides the Black-cheeks into two sub-populations. I spent last year camped out in the Nanzhila plains observing the northern population, mapping their distribution, estimating abundance and attempting to identify their habitat requirements including diet, watering, roost and nest sites.

The Study Site

The south Kafue National Park is characterised by wide open grassland plains interspersed with bushes and termiteria. Most of the termite mounds are well vegetated, with the insect's underground earthworks bringing up minerals that the plants exploit. The elevation of the termite mounds also protects the roots from waterlogging during the summer rains when much of the area is flooded - and impassable to wandering Lovebird researchers. Fringing the plains are the Colosphopemum mopane, mopane, and Brachystegia, miombo woodlands. The Park is the largest protected area within Zambia, covering around 22,480 km^2, making it one of the largest four in the world. The Nanzhila study site was chosen based on information from the Tim Dodman Black-cheeked Lovebird survey (1994) and Zambian Ornithological Society records.

During the months of fieldwork intense efforts were made to open up routes around the study area and to locate water sources. This was followed up with routine monitoring for Lovebird use and drying dates. The study area is bisected by the Nanzhila River from north to south, which had already dried into isolated pools by May. Pool numbers continued to decrease as the dry season progressed. Woodland pools in the mopane had largely dried by July, but refilled with the first rains in November.

A flock of Lovebirds in Kafue National Park. Photo: Louise Warburton

Find that Lovebird!

The Lovebirds were usually located by sound. Once sighted their location was recorded by GPS, together with as much information as possible on flock-size, activity, interaction with other species and habitat data. Each Lovebird sighting, water pool and feeding site was numbered and stored on the GPS for subsequent reference as the season's progressed. Throughout the region Black-cheeked Lovebirds were found in localised population clumps. As the field season progressed it became possible to recognise "ideal" Lovebird habitat. However this was no guarantee for locating the Lovebirds who appear to be absent from large areas of suitable habitat within their already highly localised range. Some which were Lovebird-free from May until mid-September were used by the parrots during the height of the dry season, presumably attracted by the availability of water.

The Importance of Water

The early stages of fieldwork concentrated on locating water sources, to see if they were utilised by Lovebirds. The characteristics of utilised and non-utilised pools were recorded. Contrary to earlier speculation the Lovebirds drank from a variety of pool types, in early morning and late afternoon. The exact arriving times changing with increasing day-length. Typically the pools appeared to be positioned between the ovemight roosting location and the daytime feeding area. At regularly observed pools morning arrival and afternoon departure

directions were reversed, indicating that roost sites remained constant.

Behaviour at the pools changed seasonally as the availability of water became reduced. As the dry winter season progressed, the number of birds arriving to drink increased. The arrival and meeting up at the pools became a significant social event. From May to July Lovebirds would come to drink in small flocks, typically of 5 or 6 individuals, perching briefly before dropping silently to drink, then retreating to the same bush for a brief preen or rest. The flock would then depart together, generally calling, typically as another flock flew in. By late August Lovebird numbers began concentrating at drinking time. Flocks would arrive, contact-calling, in the vicinity of the water pool, gathering in a single or a few neighbouring trees (typically the tallest, or with the barest canopy). Early arrivals settled to preen, sun-bathe and contact call the next arrivals in. The largest recorded number of individuals arriving at a single pool was exactly 800. The time taken from the first arrival to the first drinking wave was exactly one hour. Large flocks of doves and Red-billed Quelea drank during this time, with the Queleas 'meeting' in small bushes before drinking in large groups. In contrast to the silent approach to the water of the smaller Lovebird flocks earlier in the season, these large waves of birds seemed to generate a lot of excitement, making them wary to land long enough to drink. Most Lovebirds would then disperse in small flocks to feed, although 'returns' to drink in small flocks were common.

Food

Around eighty per cent of feeding observations were made with Lovebirds foraging for grass seeds at ground level, usually under the canopy of Mopane termiteria woodland, often near the (scrub) fringes bordering grassland plain, and a sub-canopy of bushes such as Balanites aegyptiaca or Boscia angustifolia. The mean feeding flock size was 9 individuals. When foraging, the birds covered the ground fairly rapidly by walking, hopping and fluttering. They fed almost non-stop with all heads down at the same time. At ground level the Lovebirds fed almost without exception in silence, until disturbed, whereupon the flock would take off in silence usually retreating to perch in the nearest canopy. Then the Lovebirds either dropped down again to resume feeding, or individuals would start to softly contact-call to stray Lovebirds who did not retreat to the same tree.

Lovebirds were also observed to feed arboreally. Species fed on included Acacia polyacantha (leaves), Capparis tomentosa (flowers), Combretum paniculatum (flowers), Syzgium cordatum (unopened flower buds) and scale insects on mopane leaves in June. As the project progresses effort to document the species fed on by Black-cheeks will continue. A likely hypothesis is that as the dry season progresses until the later rainy season when the grasses seed, ie. October through to mid-January, the Lovebirds depend more on non-grass seed nutrition (ground feeding decreases). Black-cheeked Lovebirds coincide their breeding with grass-seed production making the exact time of breeding variable, but on average slightly later than the widely published November-December season.

Resting and Preening

The Lovebirds were observed to rest at any time during the day, usually retreating into the shaded mid-canopy of the Mopane in the vicinity of feeding areas or in the locality of a water pool. They slept with either their heads tucked around onto their back with the bill buried into the back feathers, or facing forwards with the orange bib (and all body feathers) puffed out and the bill resting on top. The Lovebirds slept in small flocks, usually a combination of heads back and puffed bib, with one or two remaining awake to preen or observe. They usually fell asleep almost immediately once perched, and slept continuously until alarmed. The duration of sleep/resting periods observed

Black-cheeked Lovebird being examined in Kafue National Park. Photo: Louise Warburton

was usually around twenty minutes, although fifty minutes to one hour were not uncommon when there was no disturbance. Other small bird species such as Red-billed Quelea, Southern Grey-headed Sparrow and Blue Waxbill also commonly rested near by.

The Lovebirds were often observed to scratch, and also to mutually, allo-preen and self preen. Sunbathing was common in the cold early mornings and pre-sundown during May, June and July. In the heat of September and November a few Lovebirds were observed clearly panting, with their feathers sleeked to their body, an upright posture, wings held away from the body slightly drooped and the bill gaped open.

Predation

Although commonly observed in the near locality of potential predators, like the Accipiter species, only one observation was made of a pair of Lovebirds being 'buzzed' by a Lanner Falcon. Little Banded Goshawks (Shikra) were routinely observed at water pools, often swooping down on mixed Quelea, Sparrow and Lovebird flocks at the water's edge. However the Lovebirds were also observed to perch right next to (and surround !) a Shikra in a small Acacia bush, and African Fish Eagles who were observed to kill doves and a Grey-headed Sparrow on one occasion. Evidence of one killed Lovebird was found under a small Mopane tree next to a water pool. It was almost certainly a raptor kill as feathers from all over the body had been plucked, and there was evidence of other small avian victims having been consumed from the perch above.

Unusual Colouring

Two Black-cheeked Lovebirds were observed at the Mabvigo water pool on the 08/09/98 which did not conform to the described type (after Sclater 1906). One was much yellower on the breast with a brighter orange forehead and crown. The other was of normal body colouring but had a much paler culmen which looked near white.

Aggression

Overall the Lovebirds were not observed to be an aggressive species. The vast majority were not observed to perch as a pair, ie. the stereo-typical Lovebird pose, but rather as individuals

Contd. on page 10

Contd. from page 9

close by to each other but with personal space, frequently on separate branches in the same canopy strata. Common to other species of birds which allo and mutually preen there appears to be a narrow margin between preening behaviour and aggression.

Habitat Intact

Contrary to the conservation challenges of the majority of parrot species, the Black-cheeked Lovebird's natural habitat does not appear to suffer from immediate or foreseeable destruction. The area is both remote and does not hold any special economic potential. Indeed, as a first impression, the Lovebird appears to be successful where villagers have settled to farm in the Game Management Areas. This will be investigated during the 1999 fieldwork season. Poaching inside the Kafue National Park (and GMA's) is common and widespread. The significance for Lovebird conservation is that illegal trade in wildlife products goes on almost unchecked and at the moment is unpoliceable given the lack of resources within the Parks Department. Lovebirds would prove any easy target to capture with their dependence on daily access to water and social habits.

Factors limiting the population's recovery after the 1920's trade are both subtle and accumulative, both attributable to man (change in cropping patterns from the Lovebird preferred millet and sorgham to maize -Dodman 1995) and nature (increasing desiccation of the region resulting in lower dry season water availability). Like many other species of parrots, Lovebirds also appear traditional in their habits. In such a harsh environment knowledge of the local area, learnt from your parents/flock-mates may prove paramount to survival which may inhibit the Lovebird's from exploring 'new' (or moving back into old) areas. The long-term survival of the Black-cheeked Lovebird may depend upon manipulation of the existing lovebird utilised resources to try to encourage movement back into areas of

Typical Black-cheeked Lovebird habitat

historically known range that have since been deserted.

Perhaps the provision of Lovebird-friendly water sources could be developed by creating new water sources with perching space in the locality, and growing strips of millet and sorgham away from the villagers fields to try to supply and redirect the Lovebirds feeding away from farmer's crops. In reality it is difficult to envisage such measures being possible without special long-term provision and outside management. The Lovebirds share their environment with Zambian villagers who live on a subsistence basis, resources such as water and grain crops being extremely precious. Conservation of natural resource education is non-existent, and will certainly be encouraged through the local interest which will be aroused during the time of fieldwork.

Implications

The 1999 fieldwork will commence in the Sichifulo Game Management Area around the villages of Mulanga and Bombwe. Particular attention will be paid to the Lovebirds use of village crops and their interaction with human neighbours. This information will form an interesting comparison to the northern sub-population studied this year which lives almost without any human contact.

Objectives for the study are:

1. To map the distribution of A. nigrigenis
2. Estimate abundance
3. Identify habitat requirements
4. To evaluate all threats limiting the population's recovery
5. To create a sound method of population monitoring
6. To involve local people in the development of a long-term monitoring programme

During 1999 particular attention will be paid to the Lovebird's use of village water sources and crops to gain an insight into the importance of these crops as a source of food. The favoured choice of crop, level of utilisation, the role of other crop-raiding species, and the Lovebird-human interaction will be investigated. It is likely that the field work will be conducted on a more mobile basis, moving between the villages on a regular sampling basis, exploring new areas of possible Lovebird habitation, and visiting sites where they were known to occur historically; in addition to routinely monitoring sites measured in the 1998 season.

I would like to take this opportunity to appeal to captive breeders of Black-cheeked Lovebirds for breeding record information, which would provide interesting and useful data for the project. Any information is much appreciated even if you do not keep methodical records, and full acknowledgment will be given to data sources.

I am particularly interested in:-

- Egg laying and hatching intervals
- Clutch size
- Incubation (time and habits)
- Hatching and fledging success rates
- Growth curves
- How long does the juvenile 'darker' colouring of the bill last for ?
- Pattern of parental care
- Seasonality of breeding
- Longevity

Also,

- Where and when did you get your Black-cheeks?
- Have you found them an easy species to breed?
- Have you had any particular health management problems?

Thank-you.

Louise Warburton, RCAPC, Dept. of Zoology & Entomology, University of Natal, Private Bag X01, Scottsville 3209, Pietermaritzburg, Natal. SOUTH AFRICA
email: WarburtonL@zoology.unp.ac.za

Acknowledgements

The main source of funding in support of this project has come from the Loro Parque Fundacion of Tenerife. Other supporting bodies include: the Foundation for Research and Development (RSA), the Wildlife Conservation Society (USA), the Zambezi Society (UK), the Canadian World Parrot Trust, the German Zoological Society for the Conservation of Species and Populations, the International Fund for Animal Welfare Charitable Trust (UK), The British Ornithological Union (UK), The Lovebird (1990) Society (UK), The Parrot Society (UK) and The Conservation in Aviculture Society (UK). British Airways Assisting Conservation provided flights to Durban.

Cockatoos in Peril

by MARGARET F. KINNAIRD, Ph.D., Conservation Biologist Wildlife Conservation Society, and Co-director, WCS-Indonesia Program

My colleague and husband, Dr. Tim O'Brien, and I jump down from a bright blue minibus blaring music so loud that it strains the speakers. We cross a narrow, paved street to a small green building that serves as the offices of Sumba's Department of Forestry and Conservation. Once inside, we meet our Indonesian counterparts and island guides, Pak Robert and Abu, and obtain all the permission papers necessary to conduct preliminary research on the island.

The object of our visit is to begin an assessment of the status of one of the world's rarest and most endangered hornbills, the Sumba Island Hornbill. Throughout our conversation however, I'm distracted by an assortment of squawks, barks and squeals coming from the back of the building. Abu notices my distraction and breaks the meeting to escort us out back. There, in a large flight cage, are fourteen snow white parrots variously hanging upside down, delicately preening feathers, and nibbling on corn husks with large powerful bills. I know from the distinctive orange coloured feathers popping up and down on the top of their heads that these comical and endearing birds are Citron-crested cockatoos.

Like the hornbills we have come to survey, Citron-crested Cockatoos are found only on Sumba, a small 11,000 km^2 island in the far south-eastern corner of the Indonesian archipelago. Because of their very limited distribution, the well-being of both species depends entirely on the conservation of this one island's forest habitat.

Confiscated Cockatoos

Abu tells us that the cockatoos are in their present state of incarceration because the conservation department is waiting for their clipped wing feathers to re-grow before releasing them back to their forest habitat. The conservation department had been caring for the parrots for nearly eight months - ever since their guards, tipped off by an unknown source, confiscated the birds from traders as they attempted to smuggle them onto boats. The cockatoos were found stuffed into large bamboo poles, a common and often deadly method for shipping birds between islands.

Tim and I quickly realised that the plight of the cockatoos may be more severe than that of the hornbills and decided to incorporate the cockatoo into our research program. Our plan was ambitious - we hoped to survey every forest on the island, characterise the habitat, look for potential nest trees, measure levels of human disturbance, and of course, determine the numbers of hornbills and cockatoos present. These data would allow us to determine what types of habitat were most important for hornbills and cockatoos to develop recommendations for forest management on Sumba.

Sumba's Distinctive Landscape

Sumba is somewhat of an anomaly when compared to the rest of Indonesia's mostly lush, green islands. The island is strongly affected by warm, dry winds blowing north from Australia and as a result receives far less rain than many of its neighbours to the west. Although Sumba has lost over 60 percent of its forest cover in the last 50 years, evidence suggests the island was never completely forested. This evidence includes the presence of an endemic quail, a strict grassland species. Today, Sumba's landscape is more reminiscent of the golden savannahs of East Africa than the verdant vistas of Java or Bali. The occasional forest patch interrupts vast expanses of grasslands dotted by domestic buffalo, cattle, and horses.

Sumba's forest patches range in size from 16 to 42,000 hectares and make up less than 11 percent of the island's land area. Isolation and fragmentation of Sumba's forests occur as land is cleared for livestock and agriculture; each year the problem worsens as fires lit by herders to provide fresh fodder for livestock eat away at forest edges. The Sumbanese follow a traditional culture of livestock husbandry, and burning for pasture is an integral aspect of their life.

Team Explores Every Forest

For the next six months, Tim and I, along with a team from the Department of Conservation and BirdLife International, explored every forest patch on the island. Most of our journeys to and from the various forests were made on motorbike. I still

Contd. on page 12

Confiscated Citron-crested Cockatoos in flight cage, awaiting release.

Contd. on page 11

have scars from spills taken on wet pavement or as we fought for control while bashing our way across uncharted grounds to forests off on the horizon. For some of the more inaccessible forests, we mounted small, sturdy Sumbanese horses and camped for several days at the edge of our target forest.

Sumba forests vary in stature, soil types, and appearance but all are exquisitely beautiful. Most boast an abundance of large trees, many with gracefully buttressed roots snaking across the forest floor, dense tangles of lianas, and a vivid assortment of unique butterflies. Many of the forests are located on ridge tops or in steep ravines and as a result are extremely difficult to navigate. I cannot count the number of times I clumsily slid or rolled down hills. The worst falls were in forests with soils characterised by sharp, flesh-eating rocks. My favourite Sumba forest, Manupeu, hides one of the most extraordinary waterfalls of the island. Approximately 150 meters high, the Matayangu falls plunge from a break in a lush, misty forest. Some 50 meters immediately below, a second waterfall explodes from a deep cave in a rocky wall. Both tumble into an inviting milky blue pool that feeds a river, which provides water to Manupeu village several kilometres away.

Forest Size is Important

Our survey results showed that forest size plays an important role in the conservation of Sumba's hornbills and cockatoos. Hornbills and cockatoos prefer large forest patches. In fact, we found that both species are absent or rare in forests of less than 1,000 hectares. The birds also preferred undisturbed, primary forest characterised by big, tall trees and an abundance of potential nest sites. Unlike hornbills, cockatoos may fly long distances over open habitats to feed on agricultural crops and were occasionally found in flocks in small forest patches. Our data suggested, however, that small forest patches did not contain resident populations of cockatoos.

There was a major difficulty in drawing conclusions from our research about habitat requirements for cockatoos - the long history of harvesting cockatoos for the pet trade threw a wrench in our interpretations. For example, it is hard to know if the absence of cockatoos from a forest is due to unsuitable habitat or to local extinction due to trapping. As usual, our initial discoveries uncovered many more unanswered questions.

Portrait – Citron crested Cockatoo now highly endangered.

National Parks Created

Our survey results were not unheeded. The Ministry of Forestry, working with BirdLife and WCS-IP, used these data as fodder to get two of the largest forest blocks on Sumba declared National Parks. These parks are Sumba's very first and, if managed well, will provide a home and a future for Sumba's wildlife - including a good portion of the island's hornbills and cockatoos. These parks, however, are not used for the birds; they protect critical watersheds for the villages and farmlands surrounding them.

After a hiatus of two years, I returned in 1996 to Waingapu, the provincial capital of East Sumba, armed with a few of these unanswered questions and new research topics. Little had changed. Sumbanese men, with their alarming amber-coloured eyes and intricate, hand-woven cloth wrapped around their heads and waists, trotted about town on horseback. Women walked about in a combination of western and traditional clothes balancing impossible-looking loads on their heads. Nearly everybody had frightening, blood-red lips - evidence of an addiction to betel nut.

New Research Programme

I was accompanied by Anselmus Jati, an ambitious young master's student from the Indonesian Institute of Agriculture on Java. Ansel planned to look more deeply into the effects of forest patch size on the abundance and distribution of Sumba's birds. He intended to study the entire bird community and was labouring over learning identifying characteristics and the nuances of species vocalisations. Instead of surveying all forests once as we had previously done, Ansel picked nine forests to survey on a monthly basis. We set up a structured sampling program within three large forests measuring around 1000 hectares each, three medium forests of 500 to 750 hectares each, and three small forests of around 100 and 200 hectares each. Such a research design would allow Ansel to test rigorously for effects of forest size on bird communities.

At the end of eight months, Ansel's results showed similar patterns to what we had originally found for cockatoos and hornbills, with a few extra twists. Ansel found a linear relationship between forest size and the size of birds commonly found within them. Only the large forest patches supported healthy numbers of large-bodied birds. For example, the brilliant red and green eclectus parrots and the large imperial pigeons are commonly found in Ansel's large forest patches but drop out in his medium-sized study sites. Smaller bodied birds, like the tubby fruit pigeons which are numerous in both large and medium-sized forests, are not found in small forest patches. Small forests are the private domain of thick-billed crows, flycatchers and fantails - all generalists and insectivores; the fruit-eaters are gone.

Cockatoos Still Being Trapped

Ansel's research provided other, less pleasant information.

Pair of cockatoos preening (in the wild).

Despite a 1994 ban on the capture and sale of Citron-crested Cockatoos by Sumba's Bupatis (the equivalent of District Officers), and the listing of Citron-crested Cockatoos on Appendix II of CITES, the capture of these birds for the pet trade continues at a discouraging pace. During his monthly surveys, Ansel encountered trappers high in trees setting glue traps for the birds and found the remains of rattan ladders snaking up the sides of large trees to holes where young birds had been snagged from their nest cavities.

I travelled to Sumba again in 1998 to initiate another research project investigating the interaction between forest size and resource availability on Sumba hornbills. I wanted to know if space was really the key. Maybe hornbills, cockatoos, and other large birds preferred big forests simply because they contained more food resources. If true, then smaller forests with lots of fruit trees were still important habitat and should be protected.

Once again, little had changed on Sumba. But this time the similarities to my first exploratory trip were disturbing. "Could this be a Deja vu?" I thought as entered Abu's office and heard the now familiar harsh squawks of citron-crested cockatoos. Sadly, there was yet another confiscated shipment of cockatoos, caged and waiting feather re-growth before release. Here I was again, ready to initiate another hornbill project but unable to ignore the desperate plight of Sumba's unique and magnificent cockatoos. I turned to Arnold Sitompul, my WCS colleague, who would be conducting the hornbill study and said "We can't let these birds be released without radios!".

Radio Transmitters Essential

The Conservation Department was optimistic about the success of cockatoo releases but they had no data to confirm their impression. The group of caged cockatoos that I had met nearly five years earlier had been ringed before release and a few had been re-sighted during the following year, but their fates were mostly unknown. By attaching radio transmitters before release we could answer questions such as: Do these birds survive after release? How are they using their forest habitat? Which areas are preferred? Do they fly between forest patches? And are they using small forests on a temporary basis for feeding? I also hoped that attaching radio transmitters would provide these birds with increased protection - perhaps trappers would be less inclined to grab a bird carrying a radio that they knew could give them away with a few beeps.

Returning to my office outside Jakarta, I wrote to Dr Stewart Metz to update him on these new developments. A strong advocate of cockatoo conservation, Dr Metz immediately offered to buy the radios and help support the fieldwork. He then notified World Parrot Trust and another dedicated parrot conservationist, Ms Franziska Vogel, generously donated additional funds. Before I knew it, I had a new project!

As I write, we are gearing up for the release. Radios, receivers, antennas, and compasses have been purchased, tracking stations are being constructed, and a veterinarian is on-site to issue a bill of health before each bird is released. An eager student from the University of Indonesia in Jakarta, Hendra, will track the animals and analyse the data for his master's degree. Hendra's data will also help guide the management and conservation of Sumba's cockatoos. We simply cannot conserve these magnificent birds without understanding their lives and needs.

As this project proceeds, we will keep the readers of PsittaScene informed.

Rice planting celebration, Western Sumba.

The Elusive Coxen's Fig Parrot

by LIZ ROMER, Wildlife Conservation Officer, Currumbin Sanctuary, Queensland

The critically endangered Coxen's Fig-Parrot Cyclopsitta diophthalma coxeni is one of Australia's rarest and least known birds. One of the seven most endangered birds in Australia today, it is the only endangered parrot species in the country to occur in rainforests.

Coxen's Fig-Parrot is an attractive, small, predominantly green parrot with an extremely short tail, a disproportionately large head and bill, and red and blue facial markings. It is probably most similar in size and build to a Peachface Lovebird. It differs from the two other endemic Australian fig-parrot subspecies being the most southern in distribution, largest in size and having an almost entirely blue forehead.

The population decline of this attractive parrot, was reported as far back as the early 1900s. Storr (1984) even considered it to be extinct as early as the turn of the century. Survey work conducted in 1985 and from 1987-89 located only a few individuals (Martindale 1986, Holmes 1990) while additional survey work from 1993-95 produced no records at all (Holmes 1995).

Historical records show that it was numerous in sub-tropical rainforests between the Mary River in south-east Queensland and the Richmond River in north-east New South Wales. Reports in recent decades suggest it can be found north to near Bundaberg Queensland and south to the Port Macquarie hinterland in New South Wales (Holmes 1994, 1995). Unfortunately, the exact whereabouts of populations of this endangered sub species remain uncertain although recent work to identify potential habitat in both northern New South Wales and in the Bundaberg area has provided the basis for large scale and targeted search efforts.

The demise of the Coxen's Fig-Parrot is almost certainly related to widespread clearing of the lowland rainforests which were almost without exception decimated by the 1920s, with much of the prime fig-parrot habitat being lost through logging and agricultural clearing (Cayley 1938).

The primary diet of the Coxen's Fig-Parrot are the seeds of fig fruit, however a wide variety of additional food trees has been recorded (Holmes 1990). Although the nest and eggs remain formally undescribed, it is reported to nest in a similar manner to the other Australian fig-parrots in a hole excavated in a dead or decaying limb of a living or dead tree. It is thought to lay just two eggs (J. Young pers. comm.).

Conservation measures

As previously mentioned, field survey work was carried out in 1985 and 1987-89. Funding for this was obtained from the RAOU (now Birds Australia), ANPWS (now Environment Australia) and Currumbin Sanctuary. Although a lot of information was gathered in relation to the bird, few actual sightings resulted.

In 1987 Currumbin Sanctuary started a captive colony of the analogous Red-browed Fig-Parrots in response to recommendations made by Martindale (1986) regarding the breeding of fig-parrots in captivity.

In 1993 a Recovery Team was formed by the Queensland Department of Environment and Heritage (QDEH). The team includes members from New South Wales National Parks and Wildlife Service, QDEH, Currumbin Sanctuary, Threatened Species Network, State Forests of NSW, O'Reilly's Rainforest Guesthouse (Qld), Queensland Museum and Environment Australia.

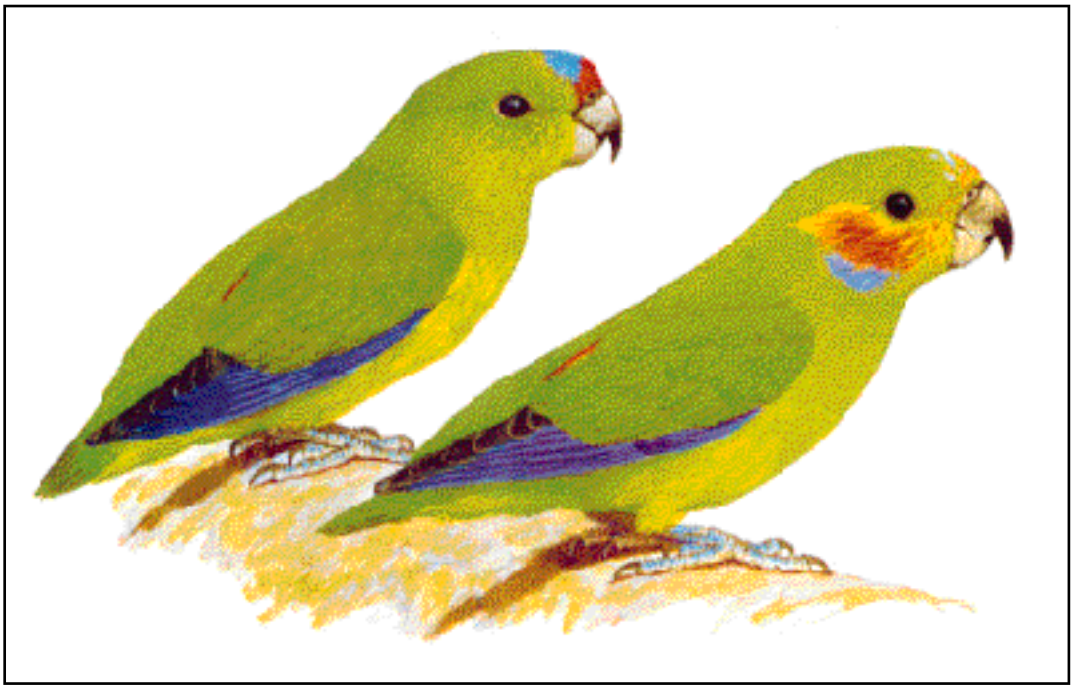
In 1993-95 an additional field search was carried out. The primary technique adopted during the survey was scanning fruiting fig trees in the hope of locating fig parrots feeding in the branches or flying from tree to tree. No birds were located over the three year period.

In 1994 a postgraduate student studied the seasonal pattern of fruiting by figs in both the lowland and upland rainforests of south-east Queensland. In 1996 habitat mapping of canopy height fig trees immediately surrounding the locations of the seven most plausible fig-parrot sighting records in NSW was carried out. Examination of Grey Goshawk prey remains has also been identified as a useful technique to locate populations of Coxen's Fig-Parrot because of the likelihood that this raptor predates upon this endangered bird. This approach has so far been unsuccessful. Further habitat identification was carried out in the Lismore area.

The year 1996 also saw the production of a brochure to raise awareness of the parrot, with confirmed sightings as a hopeful outcome. The brochure, sponsored and produced by Currumbin Sanctuary, featured in a letter to the editor of PsittaScene that year. Ten thousand were produced and distributed to schools, natural history groups and various other organisations within the bird's range. A second updated brochure is currently in production. Because of the similarity in appearance between the Coxen's Fig-Parrot and three species of lorikeet (i.e. small, and green and fast flying!) the brochure had a focus on correct identification.

In August 1996 a new tactic was introduced in the search for the parrot. This involved surveying areas for evidence of current or past nesting sites as the nests are unique. Tantalising fresh evidence was turned up of the bird's presence but no actual sightings occurred.

In 1996,1997 and 1998 "decoy" birds have been positioned in areas of likely habitat in the hope they would call in Coxen's Fig-Parrots. It is thought the calls of the Coxen's Fig-Parrot and Red-browed Fig-Parrot are quite similar. The birds used were from Currumbin Sanctuary's captive Red-browed Fig-Parrots. Unfortunately the strategy was unsuccessful in attracting Coxen's Fig-Parrot individuals.



Coxen's Fig Parrot (on right)
This illustration is from Parrots - a Guide to Parrots of the World by Tony Juniper and Mike Parr, by kind permission of the publishers, Pica Press.

In 1997 further nest site searches were carried out. This time members of the research party had their first brief but rewarding glimpse of the bird that had been so elusive as two birds flew overhead in the Main Range National Park in Queensland. However, an active nest still remained to be discovered.

Shortly after this, the first community search in NSW was organised. Volunteers spent up to a week lying under fig trees looking for Coxen's Fig-Parrot. Although no birds were discovered it was successful in spreading the word about the parrot and its plight.

In March 1998 a similar survey was conducted in the Bundaberg area in the north of the bird's range. Although no new sightings were recorded, eighteen anecdotal sightings were obtained as a result of associated media coverage. The Bundaberg branch of the Bird Observers Club of Australia has responded to the search with great enthusiasm. One result of this is a fridge flier being produced for distribution to households in the area again in the hope raising community awareness and securing a confirmed sighting. The fridge flier was produced by Currumbin Sanctuary, sponsored by the Parrot Society of Australia and distributed by the Bundaberg Bird Observers Club.

One recent initiative of the recovery team has been the production of shirts for sale to raise money and awareness for this parrot's recovery. The T-shirt features a painting by wildlife artist Sally Elmer. No known photos or videos exist of this bird! The painting is based on museum skins and information from field naturalist John Young. In order to raise awareness it features a tag with information on the species. If interested in purchasing a shirt the artwork can be seen on the Currumbin Sanctuary web site (http://www.currumbin-sanctuary.org.au).

The recovery team is currently in the process of finalising the recovery plan for this species. It is hoped it will be ready in the new year. Meanwhile a third nest survey conducted in September 1998 unearthed an old nest site at a new locality but again was unsuccessful in finding the holy grail of a pair at a current nest hole.

Captive Breeding Programme

Since 1987 Currumbin Sanctuary has been working on the analogous Red-browed Fig-Parrot C.d. macleayana. Fig-parrots have been notoriously difficult to breed in captivity, especially with respect to producing parent raised birds. The aim of this programme is to overcome these problems by establishing a successful protocol for the captive breeding of fig-parrots by parent raising. An additional aim is to develop techniques to maximise production. The information can then be applied if a decision is made to bring Coxen's Fig-Parrot into captivity as part of the recovery programme.

Over the past nine years up to seven pairs of fig-parrots have been set up for breeding. The success has been variable due in part to varying techniques and certain nest manipulations being trialled. To further our knowledge in this area we are planning a Fig-Parrot Husbandry and Breeding Workshop to be held on 22 and 23 June 1999 at Currumbin Sanctuary on the Gold Coast in Queensland. This is following on from the International "Birds 99" Convention being held in Brisbane, one hour's drive away from the Gold Coast, from 18-21 June 1999. We are inviting all people interested in the captive care of Fig-Parrots to attend and to contribute to the workshop. From the workshop we hope to produce a comprehensive husbandry manual for distribution. Interested people are requested to contact Liz Romer at Currumbin Sanctuary on email: lromer@currumbin-sanctuary.org.au or write to Currumbin Sanctuary, 28 Tomewin St, Currumbin, Queensland, Australia 4223 or phone +61 7 55250197.

Acknowledgements

Thanks to Dr Ian Gynther of the Queensland Department of Environment and Heritage and fellow member of the Coxen's Fig-Parrot Recovery Team for the editing, comments and latest pieces of information.

References

Cayley, N.W. (1938) Australian Parrots: Their Habits in Field and Aviary. Angus and Robertson, Sydney.

Holmes, G. (1990) The Biology and Ecology of Coxen's Fig-Parrot. RAOU Report No.65

Holmes, G. (1994) 'Saving Coxen's Fig-Parrot'. Wildlife Australia 31(2): 20-21

Holmes, G. (1995) Coxen's Fig Parrot Survey. A draft report to the Coxen's Fig-Parrot Recovery Team, June 1995.

Martindale, J. (1986) A Review of Literature and the Results of a Search for Coxen's Fig Parrot in South-east Queensland and North-east New South Wales during 1985. RAOU Report No. 21

Romer, L. and Gynther, I. (1997) 'Coxen's Fig-Parrot Recovery Program'. Eclectus Issue 3: 40-43.

Storr, G.M. (1984) 'Revised List of Queensland Birds'. Records of the Westem Australian Museum. Supplement No. 19.

Psitta news

This St. Lucia Parrot was bred in Jersey by JWPT, and returned to the island.

Nicole Norton with the 'giant jigsaw' from the WPT Parrot Bus.

The Caribbean
A Visit to St Lucia

by MARK NORTON

On holiday in St Lucia recently, I met Adams Toussaint, Assistant Environmental Education Officer with the Forestry and Lands Department of the St Lucia Ministry of Agriculture, based in Castries. Adams was kind enough to update me on the status of the St Lucia Amazon parrot (Amazona versicolor), or "Jacquot" as it is known locally. He explained that at the lowest point, in 1980, the total parrot population had been less than 100 birds, mainly because of habitat loss and the demands of the pet trade. It had seemed, then, that the Jacquot was almost certainly headed for extinction. But, in fact, the species had made a dramatic recovery over the past two decades. Adams told me that present estimates put at over 500 the number of parrots on St Lucia. I asked him how St Lucia had achieved such a remarkable turn around of events. He said that it had only been possible because the people of St Lucia had "rediscovered" their Jacquot - they now knew the value of their national bird. Paul Butler played an important part in the process. A significant milestone on the road to the Jacquot's recovery had been the arrival of the World Parrot Trust/RARE eco-bus in 1991.

The eco-bus toured the schools and community halls of St Lucia for two years before the severe roads had finally taken their toll. Lacking power-assisted steering and brakes, it is not an exaggeration to say that drivers, on occasions, had risked their lives in order to deliver the eco-bus's message to far-flung hamlets. Adams recalled the sad day when Ministry of Transport officials had reluctantly taken the only sensible course of action and retired the bus. He knew then that it would not be easy for his Department to replace it. But not all was lost. Adams took me to the new Canadian-funded Interpretative Centre and, inside, he showed me the original WPT exhibits taken out of the eco-bus! Amazingly, they are still teaching St Lucian children the difference between a good and a bad forest. I thought, as I watched my two-year old daughter playing with the original rain forest jigsaw, that WPT members would like to know that their donations are still working hard for the conservation of the Jacquot! As a measure of success, 37% of St Lucia remains covered in natural forest; 18% of that is primary rain forest; and 16% of St Lucia's forest is protected. The eco-bus and its displays had played no small part in that success.

Adams introduced me to five St Lucia parrots in the care of the Forestry Department. These parrots, at the Interpretative Centre, were the only captive Jacquots on St Lucia. He said that the first two had been a pair of birds retumed from Jersey Zoo following the success of their breeding programme.

But, of course, captive parrots are no substitute for their wild cousins. So Adams and I set off, in perfect weather conditions, along Des Cartiers Trail in the Quilesse Forest Reserve in search of the real thing. I conditioned myself to the likelihood we would not see any birds; too often I have tramped through acres of forest only to hear tantalising parrot calls from around the next bend.

After we had been walking for about an hour or so, I began to take a perverse pleasure in having been right. Of course we were not going to see one of the rarest parrots in the world. It was just as well I hadn't let Adams get my hopes up. Then as we entered an atypical piece of forest - basically, a palm grove - Adams, a few paces in front of me, froze. I followed his gaze, but could not immediately see what had caught his attention. Then, as my eyes adjusted to the bright Caribbean sunlight, I saw the unmistakable purple head of a Jacquot feasting on palm nuts, just 30-40 feet away. I fought with my cameras until my senses returned and I realised that the angle of the sun rendered futile my best efforts. So, abandoning my hopes of winning an award for photographic excellence, I relaxed and simply enjoyed the experience. The parrot, apparently, was relaxed too. It was quite content to continue feeding in the palm tree, tossing discarded nuts to the fern-covered forest floor. It called out intermittently to nothing in particular and I knew then that I had in fact been listening to Jacquots for most of the time I had been in the forest.

Eventually, our Jacquot, harried by a troublesome pearly-eyed thrasher, flew off in search of a more peaceful part of the forest. Walking out of the forest we saw further flashes of colour in the canopy, which may or may not have been parrots, but I didn't really care. I had seen one of only 500 (ish) Jacquots in the world - and that was one more than I was expecting!

Peru
Feat of Clay

by WAYNE E. MAYER

On a good day in the Peruvian Amazon, you can see 600 to 900 parrots and 100 large macaws perched on the wall of an eroding riverbank, biting off and swallowing thumb-size chunks of orange clay. "The number of macaws and parrots of all sizes at a single clay lick can exceed fifteen hundred in one morning, with more than a thousand on a wall at one time," says Charles Munn, senior research zoologist for WCS. "Daily, 21 species of parrots feast on clay."

Why do they do it? To pry into this clay-eating behaviour, which is called geophagy, James Gilardi, research director of the Oceanic Society, Munn, and Sean Duffy and Lisa Tell, of the University of California at Davis, combined field and lab science. "In the Amazon," says Munn, "nearly all vertebrates that eat leaves or seeds have been observed eating clay. The seeds and leaves of tropical plants are

rich in toxic compounds." In addition to the parrots, monkeys, tapirs, peccaries, deer, guans, curassows, and chachalacas consume clay. Furthermore, highland Indians in Peru mix clay with wild potatoes to render these toxic plant foods edible.

In the lab at Davis, the investigators placed tiny brine shrimp, which are used to test for toxicity, in a culture medium containing ground-up seeds eaten by macaws. The shrimp died quickly, indicating a highly toxic brew. They then fed one group of orange-winged amazons a harmless secondary compound mixed with clay. A control group was fed the compound but no clay. The birds that ingested clay never developed high blood levels of the compound, while the control group showed a rapid rise in blood levels that stayed high for hours. Through a process called adsorption, the clay prevented the compound - just as it does the toxins - from entering the bloodstream. Gilardi also suspects that the clay protects the mucus film of the gut lining, preventing chemical irritation, or "gastric erosion", by seed toxins. Widespread snacking on clay appears to allow parrots and other animals to eat poisonous foods. Geophagy, therefore, adds greater flexibility to an animal's dietary options. The team's complete findings appear in the April issue of The Journal of Chemical Ecology.

Results from the parrot studies may aid medical research in developing anti-diarrhoea medicines and other discoveries important to medicine and vertebrate biology. The parrots' passion for clay already benefits rain-forest conservation. Every year, some 4,000 tourists flock to the clay licks at Manu, Tambopata, Heath, and the Lower Urubamba rivers east of Cusco/Machu Picchu to watch and photograph the colourful spectacle of parrots devouring clay. Since 1984, these clay licks have generated close to a thousand jobs at locally owned rain forest lodges, at Cusco- and Lima-based travel agencies, and in supporting industries. Munn says: "Each wild parrot at these sites generates annually between several hundred and a few thousand dollars of foreign exchange for Peru, creating a powerful argument for protecting these birds and their rain-forest home."

New Zealand 18 Kaka Chicks were reared

Eighteen Kaka chicks we reared in the area of the Rotoiti Nature Recovery Project in Nelson Lakes National Park. It was the second year in a row the endangered native forest parrot has produced offspring in the area although it usually only breeds every three to four years.

Rotoiti Nature Recovery Project co-ordinator David Butler said there were 18 chicks in five nests. He said grave fears had been held for the future of the embattled Kaka in the Nelson Lakes area as studies by the department and by Landcare research had indicated a decline in Kaka numbers over recent years primarily due to predation by stoats. The success of the season would once again depend on the success of the stoat trapping programme. "If a single stoat finds its way into a nest it will mean the likely loss of not only any eggs and chicks but also of the nesting female birds."

He said that staff found three stoats killed by the department's traps. Another dead stoat had recently been found in the block where the Kaka were breeding. Last year staff established a network of 300 stoat traps and had already caught seven stoats and three ferrets.

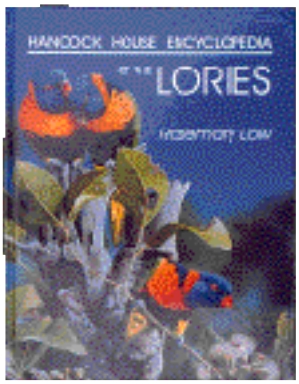
Dr Butler said Kaka usually only bred in the years when the beech forest flowered and set seed. "With the beech forest flowering heavily this spring the Kaka have moved into their second breeding season in a row."

Last year a total of 12 chicks were produced of which seven are still in the area. He said it was pretty exciting to have a further 18 chicks bred this summer.

Parrot books from Rosemary Low

Members can order books by Rosemary Low directly from her at P.O. Box 100, Mansfield, Notts NG2O 9NZ, U.K., fax number 01623 846430. They will be signed and dedicated on request. The following titles are available:

Parrots in Aviculture – a reference book and identification guide with colour photos of 250 species; £27.50 post paid in the U.K., airmail Europe and surface worldwide £29.00.



Encyclopaedia of the Lories – aviculture, natural history and conservation 432 pages (large format), 170 colour photos. The definitive work on the brush-tongued parrots; £46.50 post paid in the U.K., airmail Europe and surface worldwide £51.00.

Parrot Breeding – detailed advice on all aspects 160 pages, 60 colour photos. Soft cover. £19.95 post paid in the U.K., airmail Europe and surface worldwide £22.00.

Parrot Breeding Register – For record keeping, plus data on 150 species, including ring sizes and age at ringing, 96 pages. £8.75 post paid in U.K., airmail Europe and surface worldwide £10.00.

Macaws a Complete Guide – detailed species accounts and advice on breeding diet, etc; 144 pages (large format) and 142 photos. £18.50 post paid in U.K., airmail Europe and surface worldwide £19.50.

Parrot Quiz Book – 54 quizzes each with 12 questions from 13 categories (Amazons, Lovebirds, etc); £5.95 post paid in U.K., airmail Europe and surface worldwide £7.00.

Endangered Parrots – accounts of threatened species and conservation projects, 190 pages, 82 illustrations. Offer: £15.00 post paid in U.K. (Publisher's price £20.00.), airmail Europe and surface worldwide £18.00.

Video on Hand-rearing Parrots – 55 minutes - all aspects of hand-rearing; £17.50 post paid. in the U.K., airmail Europe and surface worldwide £19.50.

This important review of WPT projects is being repeated from the February 1999 PsittaScene

A Review of World Parrot Trust Projects

Past, present and future

by MICHAEL REYNOLDS

In our PsittaScene for August 1998 we listed 22 species of CITES Appendix 1 parrots that had been helped by funds from WPT. These were:

Spix's Macaw
Lear's Macaw
Hyacinth Macaw
Blue-throated Macaw
Buffon's Macaw
St. Vincent Amazon
Imperial Amazon
Red-necked Amazon
St. Lucia Amazon
Red-tailed Amazon
Cuban Amazon
Red-spectacled Amazon
Green-cheeked Amazon
Moluccan Cockatoo
Red-vented Cockatoo
Goffin's Cockatoo
Red-tailed Black Cockatoo
Palm Cockatoo
Kakapo
Cape Parrot
Black-cheeked Lovebird
Echo Parakeet

To the above list of 22 we can now add a further eight species from the group of Neotropical parrots described in the February 1999 issue of PsittaScene as being 'new to WPT'. We should also add the Golden-plumed Parakeet, White-necked Parakeet, and Red-faced Parrot (all studied by field biologist Jeremy Flanagan in Ecuador, with funding from WPT), and the African Grey Parrot. Also to be added is the Cuban Conure Aratinga euops, funded for three years by Canadian WPT.

So let us now add:

Scarlet Macaw
Blue-winged Macaw
Yellow-eared Parrot
Mealy Amazon
Black-billed Amazon
Yellow-billed Amazon
Yellow-headed Amazon
Blue-fronted Amazon
Golden-plumed Parakeet
White-necked Parakeet
Red-faced Parrot
African Grey Parrot
Cuban Conure

This brings us to 35 species helped during the first ten years of the World Parrot Trust. So if anyone asks you what WPT is doing, you could tell them about that, and suggest they join us so they can add to our ability to save the parrots from extinction.

To close this report I would like to let you know about two additional 'new' projects for WPT. The first is

Golden Conure
Guaruba guarouba

We have long been concerned about this Brazilian species, which has suffered from tremendous loss of its rainforest habitat, and being a highly sought after bird for trade.

The Golden Conure Fund will be based in our WPT-USA office (see new address on page 19), and Glenn Reynolds (8338 Terra Grande Ave., Springfield VA 22153, USA, fax: 703.644.6415, email: goldenconurefund@breedersblend.com) will be pleased to hear from anyone who has a special interest in this species, or wishes to contribute in any way. We suggest that everyone who holds this species should consider sending $20 or £15 for each bird to our new fund. (We have five at Paradise Park, UK, and have already sent $100 to get the fund started.) WPT- USA will match the first single donation of $1000 to this fund. The out-standing wildlife artist David Johnston has agreed to provide a painting of the Golden Conure, and tee-shirts will be available soon.

The second species is:

Citron-crested Cockatoo
Cacatua sulphurea citrinocristata

The latest information on all the white cockatoos is extremely worrying, and the Citron-crested in particular appears to be

moving close to a 'critical' position.

See the article by Margaret F. Kannaird Ph.D. on page 11-13 in this issue for more information.

A NEW TOTAL

These two projects bring us to a grand total of 37 species helped by funding from WPT. You can take it that the trustees and committee members of all WPT branches are pleased to have achieved so much with the invaluable support of the membership. The steady flow of membership fees is vital, but in the last couple of years we have been greatly helped by an increasing number of unexpected DONATIONS.

In addition to making donations when possible, our membership could also consider leaving a legacy to the WPT in their wills.

Beware of Imitations

WPT has recently been sent a copy of a document being distributed in South Africa by a Mr. Eddie Meyer. This gentleman contacted WPT-UK and asked for information, so we sent him - as we do to many enquirers - a full set of our literature. Mr. Meyer has not joined the Trust, but has extracted large sections, word for word, from our publications, in particular our 'Manifesto for Aviculture'. He has also copied our statement of aims almost exactly.

He is promoting an organisation called The International Fund for Parrot Conservation and Welfare, apparently formed in Cape Town in 1994, and is seeking to raise 35 Million Rand to pursue an ambitious list of projects. He states 'Our aims are equivalent to those of the World Parrot Trust'.

While this is flattering in its way, we need to make it clear that Mr. Meyer has no connection whatever with the World Parrot Trust-UK, or World Parrot Trust Africa, and is absolutely not authorised to collect funds on our behalf. We also deplore his infringement of our copyright.

We would appreciate being kept informed of any further misuse of our name or our literature.

On this subject, we should make it clear that we are always willing to agree to the use of the articles from PsittaScene, or our other publications, in legitimate aviculture and other journals. Our only requirements are that WPT's address and membership details be included, that prior approval is requested, and we are sent a copy of the publication.

Michael Reynolds
Hon. Director WPT
16 May 1999

Working for Parrot Conservation and Welfare Worldwide

The World Parrot Trust was founded in 1989 as UK Registered Charity No. 800944. International expansion has been rapid and the Trust now has linked charities and support groups in Africa, Australia, Belgium, Canada, France, Germany, Holland, Italy, Scandinavia, Spain, Switzerland and the USA.

Funds raised for the parrots have now reached £800,000 ($1.3M) and have been used to initiate and support conservation and welfare projects in 20 countries for 37 species of parrot. Despite this wide-ranging activity, the Trust is run on a volunteer basis, with only two part time administrators worldwide. This uniquely cost-effective approach is made possible by substantial financial and logistical support donated by Paradise Park, the UK home base 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. It pursues these aims by funding field conservation work, research projects and educational programmes. The Trust seeks to promote the concept of 'responsible aviculture' where the interests of the parrots themselves are given priority over commercial, political, career or other human concerns. The World Parrot Trust and its members wish to be recognised as the 'True Friends of the Parrots', and to win over the majority of aviculturists and scientists to its point of view. The task is huge – our resources are limited. We need the commitment of everyone in the 'parrot community': those who keep, breed, study and protect the parrots. Beyond those special interests, we look for support from everyone who understands the crisis facing the world through the loss of biodiversity. We aim to continue using the special charm of the parrots to win the hearts and minds of thoughtful people everywhere.

Michael Reynolds
Founder and Hon. Director
World Parrot Trust

Mike Reynolds meets 'Pablo', a hand-reared Echo Parakeet released to join critically endangered wild Echoes in Mauritius.

Join us

If not already a member, please join. Receive our PsittaScene newsletter, know that you are actively contributing towards our aims and projects.

Help fund our Projects

We are currently supporting parrot conservation, education and welfare projects in 20 countries. Your generosity towards the parrots could help us expand current schemes and start new ones.

Aims of the Trust

The survival of parrot species in the wild, and the welfare of captive birds.
These aims are pursued by:
Educating the public on the threats to parrots.
Opposing trade in wild-caught parrots.
Preserving and restoring parrot habitat.
Studying the status of parrot populations.
Encouraging the production of aviary-bred birds.
Creating links between aviculture and conservation.
Promoting high standards in the keeping of parrots.
Supporting research into veterinary care of parrots.

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

SUBSCRIPTION RATES (please tick)

- ☐ UK and Europe (Single) £15
- ☐ UK and Europe (Family) £20
- ☐ Fellow (Life Member) £250/US$400 Corporate (Annual)
- ☐ All overseas Airmail £17/US$25 (or equivalent currency, payment by Visa/Mastercard preferred)
- ☐ Plus donation of £/US$ .....

Name.....
Address.....
.....
.....
.....
..... Zip/Postcode .....
Please charge my Mastercard/Visa No.
Exp. date ..... Amount £/US$.....
Signature .....
OR:
I enclose a cheque made payable to the WPT ☐

Or join us on our website: www.worldparrottrust.org

WPT NATIONAL CONTACTS

United Kingdom
Sarah Graham, Administrator,
Glanmor House, Hayle, Cornwall TR27 4HY
Tel: (44) 01736 753365 Fax: (44) 01736 756438
email: uk@worldparrottrust.org
Mike Reynolds email: worldparrottrust@compuserve.com

USA
Sonia O'Donnell, PO Box 49766, Sarasota FL 34230
Tel: 941 766 7262 Fax: 941 766 9581
Email: usa@worldparrottrust.org

Benelux
Peter de Vries (Membership Sec.), Jagershof 91,
7064 DG Silvolde, Netherlands
Tel: (31) 315327418 email: heiko.pjdevries@tref.nl
Belgium enquiries: Romain Bejstrup (32) 32526773
Netherlands enquiries: Ruud Vonk (31) 168472715

Canada
Mike Pearson, PO Box 29, Mount Hope,
Ontario L0R 1W0
Tel: (1) 905 385 9500 Fax: (1) 905 385 7374
email: cwparrot@worldchat.com

Denmark (Scandinavia)
Michael Iversen, Hyldevang 4 – Buresoe,
3550 Slangerup
email: wpt@image.dk

France
J. & G. Prin, 35 Rue de la Fassiere, 45140, Ingre.
Tel: (33) 2 38 43 62 87 Fax: (33) 2 38 65 90 60

Switzerland
Lars Lepperhoff, Lutschenstrasse 15, 3063 Ittigen
Tel: (41) 31 922 3902

Germany
Jürgen Oertel, Einsiedel, Pappelweg 6,
D-09123 Chemnitz

Italy
Freddie Virili, via Matarus 10, 33045 Nimis, Udine.
Cristiana Senni, email: wpt.italia@flashnet.it

Australia
Mike Owen, 7 Monteray St., Mooloolaba,
Queensland 4557.
Tel: (61) 7 54780454 email: mowen@peg.apc.org

Africa
V. Dennison, PO Box 1758, Link Hills,
Natal 3652, S. Africa
Tel: (27) 31 763 4054 Fax: (27) 31 763 3811

Spain
Andrés Marin and Ana Matesanz,
C/La Majadita no 16 Guinate, Maquez,
35541 Las Palmas, Spain
Tel: (34) 928 835745 email: a.marin@lpa.servicom.es

WPT Web Sites:
Central: http://www.worldparrottrust.org
USA: http://www.funnyfarmexotics.com/WPT
Canada: http://wwworldchat.com/parrot/cwparrot.htm
Italy: http://www.mediavillage.it/wpt
Denmark: http://www.image.dk/fpewpt

Parrots in the Wild

Psitta scene

Gang Gang Cockatoo

Callocephalon fimbriatum

This splendid male Gang-gang Cockatoo is enjoying the buds from a Hawthorn tree in New South Wales. This is one of a series of shots from Dr. Stewart Metz.

Printed by Brewers of Helston Ltd. Tel: 01326 558000