

# PsittaScene



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New Milestones for Blue-throats  
10 Things Your Parrot Wants You to Know...

May 2008

# Psitta Scene

World Parrot Trust  
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## fromthedirector

When the “family of five” picture arrived - showing three recently fledged Blue-throated Macaws with their parents (see page 6) - it really highlighted what a fantastic year it had been for our project in Bolivia. With each new season we have rolled out new techniques and fine-tuned old ones, enabling the field team to effectively protect and support each nesting pair and their chicks. At the same time, we've come to the unfortunate realization that virtually all these nests have needed hands-on protection to succeed. We're not out of the woods yet, but it sure is gratifying to see so many pairs leaving their nests with fledglings in tow.

After a month of overlap last summer, Toa Kyle handed the reins of the Blue-throat project over to an Argentine scientist named Igor Berkunsky. By season's end, Igor was joined by an outstanding group of assistants and volunteers from all over the globe - 23 people from no less than 9 countries! To present a range of perspectives and voices in this issue of *PsittaScene*, we're excited to include a collection of Blue-throat articles, each with a unique focus.

Two other articles round out this issue nicely. One from a Brazilian masters student, Thiago Orsi, who presents his fine work on Golden Conures along with some of the most stunning photos we've ever seen of these birds. And the second, a fresh perspective on what our birds might expect of us, written by one of the most gifted and thoughtful leaders in this field today, Professor Susan Friedman.

I hope you enjoy this *PsittaScene* issue as much as I have, and ask that you please take a moment to let us know what you think about all of it - feedback from Members is as welcome as it is helpful.

Jamie Gilardi  
Director

## onourcovers

**FRONT** The unprecedented survival of 2nd and 3rd chicks in wild Blue-throated Macaw (*Ara glaucogularis*) nests was a highlight of the recent breeding season. Hopefully such success bodes well for the long-term recovery of the world's rarest wild macaw.

© Alexander Pari Chipana

**BACK** A large flock of Golden Conures (*Guaruba guarouba*) crosses the Tapajós River in Amazonia National Park, Brazil – without a doubt one of the best sites to view this species in the wild. Several flocks were observed crossing the river, which is over 3km (1.9 miles) wide at this point. © Thiago Orsi

As the Blue-throated Macaw is now the world's rarest wild macaw, our work is focused primarily on helping the last known pairs successfully fledge chicks. For a number of reasons – from rainfall to losing eggs to toucans – nearly all nesting attempts seem to fail without direct and persistent intervention by this team of committed conservationists.

In this issue, our project leader and volunteers tell their tales of the latest breeding season.

Photo: © Igor Berkunsky



# Beginner's Luck

By Igor Berkunsky

It was our first visit to the field and my first encounter with the Blue-throats. I was being "trained in" by Toa Kyle, the former Blue-throated Macaw project leader. After taking some photographs and visiting some nest-boxes, we found a pair that appeared to be interested in a dead palm tree. I said:

*"Hey Toa, it looks like a nest. What do you think?"*

Toa suggested I find a hiding place near the tree and wait for the birds. I spent more than an hour under a shrub waiting and finally the pair arrived. One of them went into the cavity and the other stayed outside, guarding. That was all the evidence I needed. I waited until the bird that was guarding the site flew, and I left silently. Later we climbed the tree and found the first egg of the season! The nest went on to fledge 3 chicks. I was so happy with my beginners luck! Unfortunately this luck did not repeat and the nests that followed did not come so easy, but they came... ➤



Photo: © Igor Berkunsky

**W**HEN THE WORLD PARROT TRUST invited me to lead the Blue-throated Macaw Conservation Project I thought it was a dream. After 10 years working with Blue-fronted Amazon (*Amazona aestiva*), Blue-crowned Parakeets (*Aratinga acuticaudata*) and Monk Parakeets (*Myiopsitta monachus*) in Argentina, I would be in Bolivia, working with the most endangered macaw in the world. My concerns were significant. Even though I had been monitoring nests for years, I had always done it from a scientific point of view - an observation of a wild situation. Now I felt a huge responsibility. With the Blue-throats we would need to act - to make decisions and go ahead with them. Everything would be focused on increasing the wild population. We only have around 80 individuals identified in the wild, and it is highly probable that the total population is not more than 200 individuals. Anything we do (good or bad) could have a significant impact for the species. All this attracted me and worried me at the same time. I searched out my best assistant, Federico Kacolis, and we went to Trinidad to meet Toa.

We spent more than one month with Toa and he showed us all the places he knew Blue-throats to be. We visited nests and nest boxes, and we met all the cattle ranchers involved in the project.

Project Leader Igor Berkunsky examines 3 chicks from one of the nest boxes. With the provision of supplementary food during critical early days, all 3 chicks fledged successfully.

Fortunately Beni (the Bolivian department or state where the project takes place) is not as stifling as the Chaco region of Argentina, to which I was accustomed.

We have a straightforward mission: to find as many active nests as possible and do everything possible to guarantee the success of the nest. To achieve this objective we must monitor every nest, every day during the 4-month period between egg-laying and fledging. All the while, we must repair old cavities and nests, and even remove bees from some cavities. None of this is

easy in an environment like the Llanos of Moxos. Here, in the dry season, the combination of intense heat, dust and smoke results in hot grey days. With the first rains the sky clears, but another problem arises - flooding. By early December almost all access is flooded, and in January we have only one road accessible by truck. By the end of the season, trucks and aeroplanes are no longer functional and we must get around in boats!

Unfortunately Blue-throated Macaws are protected by neither park nor reserve. Their



Photo: © Gonzalo Daniele



Photo: © Igor Berkunsky



Photo: © Igor Berkunsky

protection totally depends on the cattle ranchers who own the land where macaws live. Happily some of these cattle ranchers understand the situation and participate in the conservation project. Thanks to them it is possible to set up camps close to the nests to guard them. Our good results were a direct result of the ranchers' support.

### AN INCREDIBLE TEAM EFFORT

contributed to our excellent results. All field activities were coordinated with the help of two field assistants, Federico and Carmen, and two

enthusiastic field workers, Vicente and John. But as you can imagine, five people are not enough to cover 12 work sites! We brought in help, not only from Bolivia, but also from Canada, USA, Colombia, Peru, Uruguay, Argentina, Spain and New Zealand. Volunteers helped with nest monitoring and nest searches, repairing cavities and all sorts of logistics. They also collaborated with chick feeding and health checks. Thanks to volunteers' help we set up and ran 4 permanent camps with 12 active nests. Some volunteers such as "The Kiwis" (Brent and Francesca) deserve a special mention, as they brought us the gift of their experience from a variety of parrot conservation projects (see page 7).

**THE 2007-08 BREEDING SEASON** was even more successful than last season, which was the most productive to date. Five Blue-throat nests fledged a total of 10 chicks, the majority of which fledged in late December/early January. We reduced the mortality from starvation to zero, increasing the survival of chicks and the mean number of fledglings per nest. In comparison with the 2004 and 2005 seasons we doubled the average number of fledglings per successful nest. These successes are the result of more than 5 years of continuous work by the World Parrot Trust on Blue-throats in the Llanos

Bees can make a box inhospitable for birds and researchers in no time. After being removed, bees can be back within 2 weeks.

Initial nest box results are encouraging. PVC boxes (left) were introduced this year. Wooden boxes are easier to renovate, however (above). As the male looks on, one of 3 chicks enjoys the view from their new back door.

de Moxos and show that all of our management techniques are paying off.

We found 10 breeding pairs laying eggs and two of those made a second attempt for a total of 12 active nests (twice the average of previous seasons)! Half of these pairs were successful and fledged 10 chicks! This number of fledglings would be almost impossible to obtain in natural conditions. Predation remains the greatest cause of nest failure. Forty-three percent of the active nests from 2004 to 2007 (4 breeding seasons, 30 active nests) were predated. This season, one third (4 of 12) of active nests were predated, most of them during the incubation period. We lost only one nest during the chick rearing period and it was by predation.

**AT THE BEGINNING** of this breeding season (the second year using nest boxes), 67% of boxes were occupied by bees, and only 20% were occupied by birds, two with Black-bellied Whistling Duck (*Dendrocygna autumnalis*) and one with a Barn Owl (*Tyto alba*). We removed bees from 5 boxes, relocated one box, and installed three new artificial nests (one box and two PVC nests). Two of our nest boxes were occupied by Blue-throated Macaws. One pair used a nest box



Photo: © Igor Berkunsky



Photo: © Steve Seibel

This is the first family of five wild Blue-throated Macaws ever documented - January 2008.

for 2 breeding attempts. The other box had plenty of bees at the beginning of the season, but after we removed them the Blue-throats started to visit the nest and even decided to make a new entrance in the bottom of the box. With our help, this box finally raised a 3-chick clutch!

In Blue-throated Macaw nests, usually more than one chick hatches but only one fledges. This natural brood reduction occurs during the first two weeks of the nestling stage. This is a normal situation in other macaw species but represents a serious problem for Blue-throats since their population is critically low. It is essential to ensure the survival of every chick which naturally hatches. The simplest defense against starvation is to feed chicks during the most critical period. We fed chicks in almost all nests. The frequency of feeding varied with the requirements of the chicks. In most cases all chicks were monitored every day. We weighed them at each visit in order to make sure they were gaining body mass. We fed chicks every time it was necessary. Just a few days of

feeding were usually enough. Most chicks were fed twice a day, but in some cases we fed them up to six times per day. After one or two weeks of feeding in the most critical period, chicks obtained the mass needed to efficiently compete with their older siblings. Before 2007, over half of all nestlings (57%) that hatched died, most (75%) in the first week of life. We reduced this number to zero. This season none of the hatched chicks died due to starvation.

Blue-throated Macaws confront all the risks associated with small population size and the need to increase the rate of population growth is clear. With a population of 150-200 individuals any natural catastrophe or epidemic event could promote a natural extinction. We consider it very important to continue monitoring the wild population. We think we can continue to

improve Blue-throated Macaw reproductive output using simple management techniques. However, the urgency of a captive breeding & reintroduction plan is increasing. Ideally, a captive breeding program conducted locally would be coordinated with the wild nest monitoring program such that chicks being hatched to captive birds could be introduced into wild nests. Other parrot reintroduction programs showed socialization problems between individuals, most likely because adults and/or juveniles were released. In the best case scenario, captive bred chicks could be introduced into wild nests 2-3 weeks before fledging. This approach would provide them with natural socialization which is the best way to introduce them into the wild. Eventually, it may be possible to have 3 chicks in all wild nests.

**OTHER ISSUES** I would like to work on are nest predator identification, and monitoring juveniles. The use of cameras in active nests will help us to see what predators visit the nest and will also aid us in monitoring the movements of parent birds. Monitoring juveniles is important because all our efforts to increase the number of fledglings could be useless if juveniles don't survive to breeding age. While we do currently band fledglings, it is very difficult to see bands on birds in the wild. Lastly, the use of transmitters with GPS or satellite technology could show us the movements of an entire Blue-throat family - the bigger the better!

Chicks are carefully inspected, weighed and measured during regular nest checks.



Photos: © Igor Berkunsky

# New Species, - By Brent Barrett and Francesca Cunninghame

## New Challenges

The unique opportunity to participate in the Blue-throated Macaw Project and the team from the World Parrot Trust was too good to miss. Having worked extensively with critically endangered parrots in New Zealand (Kakapo, *Strigops habroptilus* and Orange-crowned Parakeet, *Cyanoramphus malherbi*) and Australia (Western Ground Parrot, *Pezoporus wallicus* and Orange-bellied Parrot, *Neophema chrysogaster*) we were very keen to see the management challenges in other complex environments.

The basic principles of species conservation are relatively simple. You need to locate and map all populations, protect habitat and individuals from all forms of reduction and educate people in methods for their future protection. That is where the simplicity ends. The challenges of conservation management are many. The environment can be socially and physically challenging. There is often a lack of knowledge of conservation needs and methods. And of course there are often limited resources in terms of time and person hours. Almost all projects face these difficulties and the real skill is how to overcome them. The BTM project has crafted numerous strategies to overcome these challenges. These include working extensively with volunteers from around the world, fostering good relationships with the local people and NGOs and developing strategies to combat any new challenges encountered.

Despite a lot of previous and new knowledge there is still much to learn about this threatened species which is essential for its survival. In the immediate future it is imperative to:

1. Maximize the survival of all hatchlings so that 100% of monitored chicks fledge.
2. To protect all fertile eggs during the very vulnerable incubation and rearing stages. This will require the same stoic commitment from managers, staff and dedicated volunteers utilizing some clever conservation techniques, such as hand raising, fostering and egg candling. The result will be maximized productivity which will augment the delicate satellite populations which constitute the genetic security of the species.

We truly enjoyed our time with the Blue-throated Macaw project. Working with the team and the animals was truly rewarding and we hope to return to help again in the future.



Photo: © Sarah Faegre



Photo: © Brent Barrett



Photo: © Brent Barrett



Photo: © Igor Berkunsky



Photo: © Karem Gomez

Blue-throats commonly hatch more than one chick but typically only one, if any, survives to fledging. To counteract this mortality, chicks are weighed daily (or even twice a day early on) and fed as needed. As a result, mortality from starvation was reduced to zero and the number of fledglings per successful nest doubled.

# To Fly or To Fall - By Sarah Faegre, project volunteer

19 December 2007

It is 6 am when I arrive at the blind. I have been watching this blue-throat nest every day for a month now.

**F**or the past week Goliath, the larger of the two chicks, has been poking his head

out of the cavity entrance. Shortly after sunrise I watch as he climbs to the entrance and looks around. Now and then, a yawn escapes his big, black beak.

At 8 a.m., as his parents perch in a nearby tree, Goliath takes his first cautious steps out of the nest cavity. He wobbles above the cavity entrance on the steeply angled trunk and begins to flap his wings. In the following hours I watch as his parents lavish attention upon him. His parents fly to the branch above him and he immediately becomes braver, climbing up the trunk to the first fork. He bows his head until his beak touches the bark, his eyes half closed, feathers raised to facilitate the gentle nibbles of his parents. They preen his wingpits and nibble the tiny feathers and bare skin around his face, then proceed down his crop to his belly. Watching the three of them together is one of the most beautiful scenes I have ever observed in nature.

Meanwhile, little Manu (the younger sibling) seems to feel terribly left out, perching at the

cavity entrance and squawking loudly. Mom climbs down the trunk and enters the cavity to attend to Manu as Goliath traipses higher. He is about to reach the next fork, with dad right behind him when he slips... He flaps madly, but it's too late. He crashes into a patch of bromeliads at the base of the nest tree. The father simply stares down as his chick screeches from the ground. Mom pops her head out of the cavity and the babysitter (me) jumps out of the blind and goes to help the fallen chick.

As I approach, the parents screech with distress and circle the nest tree several times before leaving the area. Goliath screeches and tries to fly away but his wings barely help to increase his groundspeed as he waddles away from me. I pick him up easily and he calms down. Lucky Goliath has a fan club of people all around the world, so he will be one of the few wild parrots to get a second chance at fledging. I return him to the nest tree and walk back to the blind. There is no sight or sound from the chicks for the next two hours and I hope that they will stay put.



Photo: © Sarah Faegre

20 December 2007

I arrive at the blind at 7:00 a.m. and see one chick poking its head out of the cavity entrance. Is this Goliath or did he already fledge? Is he high in a tree with his parents? Could he have fledged yesterday and been eaten by a predator? At 7:15 the chick retracts his head and I am left staring at the empty cavity entrance wondering... At 7:38 I hear the familiar, whiny call of the adults along with chick sounds nearby. My curiosity is overwhelming and I sneak out of the blind to take a look. Goliath is with them clinging to a precariously hanging branch in a small, scraggly Motacu Palm. He looks at me, seeming much less concerned by my presence than by his problematic situation. He tries to climb higher, loses his balance and flaps his wings madly, clambering back onto the branch. "What do I do?" I wonder. I don't want to disturb the family at this extremely sensitive time, but I can't leave a Blue-throated Macaw chick in this vulnerable position. My solution? The portable Blue-throated Macaw babysitting unit (a.k.a. the portable blind).

I spend 15 minutes silently moving the blind. I wonder how long he has been in this tree? It looks like he climbed from the ground. If he's fallen twice, what's to say that he won't fall again? I think surely this scrawny, stub-tailed chick can't fly, yet he's posturing in preparation for take off. I click my camera into video mode wondering "Do I really want a video of a Blue-throated Macaw chick crashing to the ground?" And then, with all the force in his body, Goliath pushes off from the branch and flies, straight through the trees and out of sight, his parents close behind him. And so, at 8:45 a.m., the parents and their newly fledged chick disappeared as silhouettes over the golden savannah.



Photo: © Igor Berkunsky



# A Welcomed Visitor - By Dave Cruz, Minnesota Zoo



Photo: © Dave Cruz

The Blue-throated Macaw has intrigued me for much of my bird training career. In November of 2007, I had the opportunity to visit the World Parrot Trust Blue-throated Macaw Project. I was fully prepared to be received as an "outsider" or a privileged guest to be kept at arms length and diverted from the real action. I wanted to hit the ground running but I knew I needed to temper my enthusiasm. I had to "chillax" as my daughter Kendra would say (that's a combination of "chill" and "relax" for those of you who do not have an ultra-hip ten year old to keep you current).



Photo: © Federico Kaoliris

When the rains come, getting to nest sites and chicks gets much more complicated. Boats (and boots) and horses become invaluable in getting daily tasks accomplished.

To state that my trepidations were one hundred percent incorrect would be an understatement. I was welcomed into the well oiled machine of good natured professionals and was immediately in the thick of this project. From the moment our small four passenger plane landed in the muddy field that passed for a landing strip, I was just another member of an extended, hard working family. And I do mean hard working. I was informed that our bush pilot would not return to pick us up unless we made some repairs to the "runway". We set to work with machetes, home made shovels and hoes. Now that's my kind of initiation.

There is a lot of ground to cover on this project. The terrain is less than accommodating and the hiking required to gain access to these nesting sites is tough going. I was warned about dehydration in the scorching afternoon sun but did not take heed until I had to be assisted back to camp by one of my new teammates. I learned that lesson quickly and my body adapted to the conditions in short order. I enjoyed the challenges of the hiking and climbing. The thrill of exploring places that most humans will never see is one of the ultimate joys of my life. But one of the hardest things for me to master was the waiting game.

I was not prepared for the long periods of time when the seasonal rains are so severe that everything is put on hold. I didn't know it was

possible for it to rain so hard, for so long. The waiting and the worrying about the safety of the nesting macaws and their eggs and chicks in various stages of development was more than I thought I could bear. The rest of the team had already been through this time and time again. They waited out the storm in hammocks while planning and preparing for the flurry of activity that would follow. These rains, though a passing nuisance to me, are a harsh reality that have claimed many a valuable Blue-throat nestling. This is serious business and a lot of care has gone in to making these nests flood-proof.

My time on this project was short but intensely rewarding. This first hand experience was also

invaluable to me and my crew back at the Minnesota Zoo. It gives us a whole new perspective in teaching zoo visitors about these birds and what it takes to save any species once it is so critically endangered. The Blue-throated Macaw Recovery Project is nothing short of imperative. I could and should slap every accolade available upon the field team, the donors and facilitators but that is not the whole story. This small population of wild Blue-throated Macaws, although increasing, is extremely fragile. It looks like human intervention may be the only way to stave off the extinction of this spectacular macaw species. In the end my hope is that this is a story of survival.

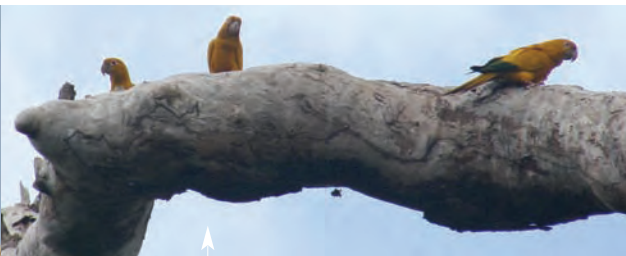


Photo: © Igor Berkunsky

# A Golden Gathering

Text and Photos By Thiago Orsi

Translated by Toa Kyle



It was the end of a hot morning in Amazonia National Park, western Pará, Brazil. Along a winding, muddied trail WPT biologist Toa Kyle and I arrived at our destination to find something missing from the landscape. I couldn't believe it...

Six weeks earlier I had walked this very same trail to find a hub of Golden Conure activity including an active nest. Unfortunately on the morning of March 8th 2007, what was missing was the tree. In its place we found the chain-sawed stump and fallen trunk. Someone had obviously cut down the tree to rob the chicks from the nest. Our first feeling was shock, then we were angry, then just sad. But this is why we need to be out here. Personally, my role in the Golden Conure story began much earlier and wouldn't soon be over.

My work with the Golden Conure, the subject of my Masters thesis, began in July 2006 when Toa and I found ourselves searching for them in the south-east of Amazonas state of Brazil. In more than a week of searching and interviewing locals we could not confirm the presence of the species in the area. In the end we had to travel to the west side of the Tapajós River, in neighboring Pará, to find flocks of these stunning birds. The first time I observed a Golden Conure in the wild was a bonanza of 22 birds foraging in tall trees along the Trans Amazon highway. In the following days we observed other flocks in the area and I realized that I would have to change my research location from southeastern Amazonas to western Pará.

I began my thesis work in earnest in January 2007, concentrating my field efforts in and around Amazonia National Park (ANP). I finished in December of the same year, after spending over 160 days in the field and traversing more than 3000 km (1865 miles) by car, motorcycle, bicycle and on foot. In the end I spent over 900 hours searching for and studying this emblematic, yet enigmatic species.

◀ A series of photos taken at a nest tree in Amazonia National Park. The original flock of six birds can be seen in the middle right photo. After the tree was cut down by poachers (above), only four birds could be seen in the area. The nest cavity itself was likely located in one of the branches.



(*Ara macao*), Green-winged Macaw (*Ara chloroptera*) and White-eyed Parakeet (*Aratinga leucophthalmus*).

Over the course of the year I observed specific flocks of Golden Conure feeding in the same general areas. Although they seemed to disappear for days on end, I don't believe they are a species which migrates seasonally or searches nomadically for fruiting trees across large distances. On the contrary, it appears that with certain flocks at least, they occupy a specific territory year-round.

As noted by Toa Kyle (*PsittaScene* Vol. 17:2), muruci trees (*Byrsonima* spp) are an important food resource for Golden Conure, especially during the post-fledging period. I witnessed the largest gatherings, sometimes up to 50 birds, in areas rich in muruci trees. It was also in a muruci grove that I observed a chick as it learned how to feed by itself. The chick's flock had left it alone as they searched for other fruiting trees. To my amusement the chick chewed on flowers, holding each one in its beak for several seconds at a time. Once I watched a flock of 19 birds feed in a muruci grove for more than four hours.

### New food types

I observed Golden Conures feeding in 11 different types of trees, 10 of which had never been noted for the species. Birds concentrated on one type of fruit tree for a given period then moved to another species as the fruit supply from the former diminished and the latter increased. With some trees they fed on the fruit pulp or skin while with others they predated seeds. The majority of feeding trees were found in secondary growth (i.e. regenerating forest) which leaves the question of what trees they utilize in virgin forest still unanswered. During the course of my research there were numerous other trees in fruit that were ignored by Golden Conure but visited by other parrot species such as Scarlet Macaw

### Flock dynamics

I observed varying flock sizes throughout the study period, from single birds, to pairs and even groupings of 50 individuals, but flocks of 5-7 birds were the most common. At tree roosts I noted that up to 20 birds could sleep inside the same tree cavity. Because the same number of individuals was observed sleeping in the same roost tree over the course of the year, I referred to the flock as a clan, adopting the term first employed by Glenn Reynolds (*PsittaScene* Vol.15:2). Individuals of these clans remained loosely together the entire day, separating to forage, mate or allo-preen in pairs or for nest vigilance and defence. In the heat of the afternoon sun, clans rest in the shade of trees near their roost site. Some clans were hostile to



the presence of other Golden Conures in nesting and feeding sites while in other areas, clans would peacefully intermingle.

By tracking the locations of specific clans and locating roost trees, I estimate the population of Golden Conure in my study area (around 4000km<sup>2</sup> or 1500mi<sup>2</sup>) to be several hundred individuals. However, only a small proportion of these birds appear to be actively reproducing. On average only two to three chicks were seen per flock. The maximum of four chicks was observed in bands of more than 20 birds. This low number of chicks per flock suggests a low reproductive output due possibly to a disproportionate number of non-reproducing individuals relative to breeding birds.

Social interactions amongst clan members can be spectacular to observe. During the early morning hours at nest sites, the clan dedicates themselves to preening and socializing. Birds group in pairs or threes on dead branches where they allo-preen. Play is a notable behavior at this time as well. Some individuals peck at one another in jest, at times hanging upside down until letting go of the branch, briefly falling before flying to the same perch. On one occasion I observed individuals form a line along a hanging vine where birds hung upside down and playfully bit at one another. During these moments, I also noted that other birds remained perched alone on higher branches. Perhaps these are the oldest flock members that dedicate themselves to the vigilance and security of the clan.

### Nesting and Roost Trees

During my time in the field I was able to locate around 14 roost trees, of which eight were active nests during the reproductive period. All of the trees were found in open areas bordering the Trans Amazon highway or in small agriculture plots subject to high impact by humans. I didn't find any preferences for specific tree type or structure for nesting purposes. Golden Conure clans continued using a given nest tree for a dormitory in the non-breeding season. Only one roost tree was abandoned during the course of my research though this occurred after the area surrounding the tree was burned to encourage pasture growth. In this case, the band remained in the same area utilizing another tree cavity for their dormitory. On numerous occasions I observed aggressive behavior by nesting birds towards other flocks of Golden Conure or other parrot species. Golden Conures were efficient in driving away other birds from the area of their nests without ever coming into direct contact with these "trespassers". However, the tables were turned for one unlucky Golden Conure I was observing, when it flew too close to a Bat Falcon (*Falco rufifigularis*) nest cavity, the bird being quickly scared off by these diminutive, but extremely skilled fliers.



A Golden Conure feeds on a fruit known locally as Tapiriri (above). When a group assaults a muruci grove full of immature fruits (right) it is possible to observe individuals at close range.

### Trapping and Deforestation

The trapping of parrots for the illegal wildlife trade continues in Amazonia National Park. The nest tree we intended on climbing in March 2007 was obviously cut down in February to remove the nestlings. In this case, the clan of six individuals was reduced to four birds who continued to roost in the area in another tree. Numerous locals I spoke to admitted to having captive Golden Conure in their homes and also revealed they had received offers from others to buy them. I also encountered nest trees south of ANP that had slabs of wood nailed into them, to act as a ladder to the nest cavity. Although nest robbing in this region doesn't appear to be on an organized scale like it is in eastern Pará, each day brings more signs of active trapping.

The actions of wildlife traffickers and continued habitat loss are the principle extinction risks for Golden Conures. Recent studies have modelled the advance of deforestation in the Amazon and the predictions are pessimistic. In this rather bleak scenario the central portion of the range of Golden Conure, where ANP is found, will become the centre of hope for the survival of the species. New conservation units have been created in this area which should guarantee the perpetuation of these special birds in the long term. Admittedly, controlling the action of wildlife traffickers will be a challenge.

On a positive note, the Friends of the Amazonia National Park was recently created. This NGO has given educational talks to communities bordering ANP and is a welcome ally in raising awareness to the importance of guaranteeing the future survival of Golden Conure in the region. Environmental education is without a doubt the principal measure that can be implemented in order to diminish the number of birds being captured for the wildlife trade.





Birds explore cavities, chase and peck at one another and allo-preen mainly in the first hour after dawn and the last hours of the day, usually in the vicinity of their nest or roost tree. In the heat of the day (below) they find shade and rest or socialize.

### Areas for future investigation

Nest work with Golden Conures is still sorely lacking. Obviously it is important to any endangered species recovery program to know how well (or poorly) an animal is reproducing in the wild. In the case of the Golden Conure it is extremely interesting to determine if a given clan is composed of numerous nesting pairs or a single reproductive pair aided by their chicks from successive breeding seasons - a theory that was suggested by Glenn Reynolds in *PsittaScene* Vol.15:2. Knowledge of how many birds constitute the reproductive population will help us better understand the vulnerability they face towards extinction and in turn the direction future conservation efforts should take.



My study was biased in that almost all of my observations were made in the vicinity of the Trans Amazon highway. This is partly due to the preference Golden Conure exhibit for nest and roost trees in open, degraded areas but also due to a lack of sufficient trail network within the park to permit adequate searches in pristine forest. It is hoped that future research can strike an adequate balance between time spent in human altered and natural landscapes to better determine the habitat requirements for these enchanting birds. A better understanding of the biology of Golden Conure, coupled with educational outreach programs for the people and communities that inhabit areas where birds are found, is essential to preserving this strikingly unique species.



This particular nest tree is situated in a lagoon that is full of caiman.

Needless to say we were apprehensive about swimming out to the tree to climb it. We've purchased an inflatable kayak that will aid in accessing nest trees such as this and also conducting searches for other nests surrounded by water.



# P·E·T Pages

*PsittaScene's* PET Pages help you provide the very best for your bird by focusing on Parrot behaviour, Enrichment and Training.

# 10 Things your parrot wants you to know about behavior



By S.G. Friedman, Ph.D., Department of Psychology, Utah State University

Speaking for oneself is hard enough, so how does one speak for another species? The general laws of learning and behavior from the field of behavior analysis provide an articulate voice to speak about best practices for all animals. In recent years, as the teaching technology of applied behavior analysis has become more widely known and practiced, the quality of life for captive parrots has improved by leaps and bounds. Although they may not tell you in quite this way, all parrots will benefit from caregivers who know these ten things about behavior.

Susan G. Friedman, Ph.D., is a psychology professor at Utah State University. Over the last decade, she has helped pioneer efforts to apply to animals the scientifically sound teaching technology and ethical standard of Applied Behavior Analysis. Susan teaches two on-line courses, one for veterinarians and other animal professionals, and another for pet owners; and she presents cross-species workshops around the world. Her articles appear on the Internet in 8 languages.



Photo: © Sam Williams

Behavior is what a parrot does, under certain conditions; behavior is not what a parrot is.

Is this parrot neurotic? Hormonal? Fearful? Be careful using labels to describe your bird. Instead describe behavior you can see.

Next time you are tempted to describe a parrot with an “is-label” (such as *is* vicious, *is* dominant, *is* neurotic), answer these three questions instead: What does this label look like in terms of actual, observable behavior? Under what conditions does this behavior occur? What is the immediate outcome the behavior produces for the bird?

The answers to these questions will help you set clear behavior-change targets, identify the antecedent predictors in the environment that

promote the behavior, and determine what consequences maintain the behavior. For example, see how much information is gained by replacing a vague label - “My bird is vicious.” - with specific antecedent-behavior-consequence descriptions - “When I offer my hand near the cage (antecedent), my bird lunges (behavior), to get me to remove my hand (consequence).” We can't replace “vicious” because it's just a label, but we can replace lunging with an alternate behavior we want to see more.



Photo: © Mark Swiecki

Parrots may not always seek the same consequences. Sometimes a scratch on the head is motivating, while other times only a peanut will do!

**2 Every behavior serves a purpose for your parrot; the purpose is the consequence the behavior produces.**

Behavior is a tool parrots use to produce desired consequences (outcomes) from the environment (including the environment inside their skin). To discover the reason for a particular behavior, look at what happens right *after* the behavior. Outcomes generally fall into one of two categories - to get, or to get away from, particular items, events, or conditions.

The motivation to behave in a particular way today comes from the consequences the behavior produced yesterday. This is called the law of effect, which states that behavior is a function of its consequences. The law of effect describes Nature's feedback loop. Behavior that works from the animal's point of view is repeated and behavior that doesn't work is modified or suppressed. For example, many parrots vocalize persistently because doing so has produced social reinforcers (human attention) in the past. The bird is a learner not a screamer.

**3 Parrots naturally choose the behavior that yields the most positive consequences.**

Given a choice, all animals tend to do the things that are most rewarding to them. This is called the matching law, which states that the relative rates of different behaviors (or the same behaviors in different situations) tend to match the relative rates of reinforcement they produce.

For example, if Periwinkle Parrot is reinforced for stepping up 90% of the time when John offers his hand and 40% of the time when Grace offers her hand, Periwinkle will tend to step up for John 90% of the time but only 40% of the time for Grace. The matching law has been demonstrated with many species of animals including humans. We can apply the matching law to decrease the rate of a problem behavior by supersizing the rate of reinforcement for an alternate behavior. In this way we decrease problems without resorting to punishing strategies.

**4 Every parrot is an individual and has a personal point of view about what consequences motivate him or her to behave.**

Reinforcers come in many different forms including tangible items, social interactions, sensory experiences, physical activities, and escape from unpleasant stimuli. The quality of an animal's life is highly related to the rate, quality and variety of reinforcers that motivate its behavior daily. Some reinforcers are automatically rewarding like food. Other reinforcers are learned through experience via the process of repeated, close pairing with existing reinforcers. The touch of a human hand is an example of a reinforcer learned by pairing with other reinforcers like food. The ability to learn new reinforcers is another one of Nature's clever plans. It ensures that there will always be a good reason to behave rather than be still.

**5 To learn what motivates your parrot, carefully observe favorite items, activities, and people.**

The label "reinforcer" describes the behavior-increasing effect a consequence has on the behavior it follows. It doesn't describe any fixed characteristics of the consequence, per se. Some consequences are reinforcing some of the time and not other times. A sunflower seed may not motivate a bird who has just eaten a bowl full of seeds and a human hand may not motivate a bird to fly who has been active all day. Knowledge about a species' natural history, the individual's behavioral history, and the current conditions in which the parrot lives provide important clues about what may motivate a particular bird. The best approach is to make no assumptions. When it comes to the needs of individual parrots, behavior is best understood as a study of one.

**6 Increase your parrot's good behavior by delivering positive reinforcers immediately and consistently.**

Perhaps the single most important consideration for highly effective reinforcement is contiguity, or closeness in time, between the behavior and the reinforcer. Speedy delivery of positive reinforcers is the clearest way to communicate the exact response that produced the rewarding outcome so that the parrot can repeat the response and earn more reinforcement. Late delivery can result in reinforcing a different response that occurs further down the ongoing behavior stream. Consistency is also very



Photo: © WPT

Pay attention to each small step your parrot makes towards a new behavior and have your reinforcer ready to deliver immediately!

important because it communicates clearly the “if-then” contingency between the behavior and the outcome - if you step onto the perch, then you get a scratch on the head.

**The bad news is you can unintentionally reinforce problem behaviors too.**

Behaviors that are not reinforced decrease over time by the process called extinction. It follows then that every single behavior repeatedly exhibited by a parrot is reinforced in some way, including problem behaviors like wandering off a play station, biting to remove unwanted hands, and chewing the woodwork for sensory rewards. Intermittent reinforcement will produce persistent misbehavior by the very same process that produces avid gamblers. Once a problem behavior is learned, the occasional jackpot is all that is needed to maintain a behavior like screaming for attention.

It isn't always what we do that reinforces a parrot's problem behaviors - other birds, children, and internal sensations are some of the other usual suspects - but, in any case, unintentional reinforcement is a problem we can do something about. The most helpful question you can answer when dealing with a problem behavior is not what's wrong with this parrot but rather, what reinforces this particular

behavior. When we understand that behavior is functionally related to the context in which it occurs, we can change the context to change behavior, effectively and humanely.

**To avoid problem behaviors, arrange the environment to make the right behavior easier and more effective than the wrong behavior.**

Sometimes the most positive, least intrusive way to solve a behavior problem is to remove the environmental cues that set the behavior in play in the first place. For example, moving a well-appointed play station away from the wall will reduce a parrot's penchant for chewing the windowsill. Affixing a perch to the inside of the cage door, and teaching the parrot to stand there before opening the cage door, can reduce a parrot's inclination to bite a hand offered deep inside its cage. It takes a keen eye to assess the many ways in which the environment we provide presents obstacles to the behavior we want our parrots to exhibit. Many simple behavior solutions are missed because we are looking “in the bird” instead of in the setting in which the behavior occurs.

Further, you can remove the reinforcer that maintains a problem behavior and the behavior will decrease because it no longer effectively produces the reinforcer.

**Reinforce small improvements toward the final behavior goal.**

You can't reinforce a behavior that never occurs but you can teach parrots new behaviors (or a new version of an existing behavior) quickly, by reinforcing small approximations toward the final goal. This procedure is called shaping. For example, a parrot that is reluctant to step onto a perch can be shaped to do so by reinforcing several repetitions of the following approximations: Calm body language near the perch; quick touches of a toe on the perch; one foot remaining on the perch; a shift in weight onto one foot on the perch; and finally, two feet on the perch.

Highly successful shapers are skilled observers of the subtle, natural variation with which behaviors are performed. In this natural variation, they notice and reinforce the next closer approximation toward the final behavior. Very small improvements must be reinforced with super-immediacy. If the bird shows any hesitation at a particular approximation, relax the criterion for reinforcement to the previously mastered step and then move forward again, approximation by approximation.

**You get what you reinforce so catch your parrot being good.**

It can be said that our cultural fog has us generally paying more attention to the misbehavior of individuals than their good behavior. In fact, the same amount of attention skillfully redirected to arranging the environment to make good behavior both easy and rewarding will yield fast, long lasting results. Follow the rule of fair pairs, which states that whenever you decrease a problem behavior (resulting in fewer reinforcers for the bird) be sure to set a behavior goal to increase at the same time. In this way you will protect the total amount of reinforcement your parrot experiences each day.

Catching your parrot being good will not only increase behaviors you want to see more but also improve your relationship with your bird. Animals will be empowered to make the right behavioral choices for the right reasons, that is, to get something of value rather than to escape something aversive. As a result parrots will live more successfully among humans.





# Grey Update...

...For the full story see PsittaScene February 2008 and [parrots.org](http://parrots.org) → current projects → African Grey...



Photo: © Limbe Wildlife Centre

In the waning months of 2007 an epic began for the Last Great Ape Organization (LAGA) and for the staff of the Limbe Wildlife Centre (LWC) in Cameroon, Africa. LAGA's investigation activities led to the seizure of over 1,200 African Grey parrots in 2 illegal shipments bound for pet markets abroad. The birds went to Limbe for triage. Hundreds have been released and around 300 remain while their feathers grow before release.

Ofir Drori, the founder and director of LAGA, said "The Grey Parrots case proved to be one of the most interesting in terms of high level corruption and complicity. One top dealer is behind bars and most of the parrots are already free. The Minister said he decided to release the parrots as an act of commitment towards fighting wildlife crime, and symbolically released a few of them with the governor of Limbe and two Ambassadors (above). This is the first time such quantity was seized and not recycled back into the trade benefiting illegal dealers. We hope this release will set a precedent not only in Cameroon."

Of the 1,200 birds originally seized, over 700 were released almost immediately. Unfortunately, approximately 200 birds were dead on arrival or died from illness or injury. The remaining 300 birds had severe feather damage, which required intense care. The World Parrot Trust provided immediate financial help to build aviaries and buy food, then sent Dr. Gino Conzo, an Italian veterinarian to Limbe to advise the staff and help treat the birds. Gino was accompanied by Mario D'Angelo for the daunting task. With assistance from the Limbe staff, Gino and Mario examined each bird and removed all the damaged feathers to speed the growth of new feathers and eventual release.

In a recent update Felix Lankester reported: Once the damaged feathers were removed the birds began recuperating in flight cages. In early February they completed treatment for Chlamydia. The treatment had been very successful with the daily death rate dropping to zero. Even the birds that had been extremely sick recovered well enough to be placed back into the flight cages with the rest of the flock.

Everything seemed to be moving forward nicely until late March when three birds died in two days. After discussions with Dr. Conzo, we concluded that the parrots could be beginning another wave of Chlamydia. It is extremely difficult to rid a flock of the infective organism, as the birds can be asymptomatic carriers. In order to prevent another epidemic we started another round of treatment and will monitor the situation very carefully. We hope we caught the outbreak early and in doing so will reduce the number of casualties. However if a number of birds do become sick their feather recovery rate, and eventual release may be delayed beyond May 2008.



Photo: © Gino Conzo

The Limbe Wildlife Centre would like to thank the WPT for the logistical assistance and critical financial help, without which we certainly would not have been able to do so much for the African Greys.

# Psitta News

Photo: © Dean Moser



## Parrotevents

### The Perch Store - until June 2008

During the months of April, May and June 2008 this online retailer of parrot products will donate a percentage of all sales to the WPT. See: [theperchstore.net](http://theperchstore.net) or visit [parrots.org](http://parrots.org) → sponsors

### Phoenix Landing - 10th May 2008

This non-profit Foundation provides education programs on proper bird care. They will be hosting a full day event with Steve Martin on May 10th, 2008. They will donate the proceeds from silent auction to the World Parrot Trust.

See: [parrots.org](http://parrots.org) → parrot news → events

### FlyAbout 2008 - May 23-25 2008

Chris Shank will hold her second FlyAbout at Cockatoo Downs in Salem, Oregon. This year's event has expanded to three days with a newly added Clicker Training Workshop to be held on Friday, May 23. This workshop will concentrate on proper training techniques using a clicker and positive reinforcement. Saturday and Sunday, the FlyAbout will focus on the pros and cons of indoor and outdoor parrot flight and what is involved in creating a reliable and safe outdoor, as well as indoor, flying companion parrot. Expert avian trainers will discuss positive reinforcement training methods designed to teach your parrot to be a successful and safe flyer. Demonstrations of free flying parrots will take place throughout the weekend.

A percentage of the proceeds from the FlyAbout 2008 will be donated to the World Parrot Trust.

See: [parrots.org](http://parrots.org) → parrot news → events or call Chris Shank at (503) 831-1314

### Hosting a parrot event?

If you are interested in hosting an event to benefit parrots and raise funds for the WPT See: [parrots.org](http://parrots.org) → get involved

## Parrotnews

### Cockatoos and Lories Released

The illegal wild bird trade remains rampant in Indonesia, and includes a number of parrot species. Those confiscated birds that can be released must meet strict criteria set forth by IUCN (the World Conservation Union) and CITES (Convention on the Trade in Endangered Species). The Indonesian Parrot Project has now carried out three parrot releases. The most recent was in February 2008, when 7 Seram Cockatoos (*Cacatua moluccensis*) and 4 Purple-naped Lories (*Lorius domicella*) were released, bringing the total to date to 16 cockatoos and 4 lories. The children of nearby villages were able to witness these releases and share in the excitement.

Although this number of birds by itself is not large, such releases offer a significant opportunity to increase the pride of local villages and children in their native birds, and to teach the principles of conservation.

Source: <http://www.prweb.com/releases>



Photo: © Stewart Metz

Cockatoos on the way back to the wild.

### Beware of parrot scams in the UK

Illegal traders are said to be behind a scam in which bird lovers are duped into buying parrots that die days later. RSPCA Inspectors are set to probe claims that common parakeets are being scared out of trees in London parks and sold as "rare" parrots to unsuspecting buyers.

Source: <http://icvales.icnetwork.co.uk>

### Lucky Cockatoo saved by its mates

Animal rescuers say a Cockatoo rescued from a tree had been kept alive for two weeks by his fellow feathered friends. A rescue team was called to help the Sulphur-crested Cockatoo. The parrot had been caught in a gum tree after its leg became entangled in netting. Animal rescuer, Nigel Williamson says he believes the Cockatoo had been trapped in the tree for two weeks and was kept alive by other birds. "It's been amazing how the other birds have come along and they've obviously been feeding it and keeping it going," he said. He says although traumatised and skinny, the cocky is on the road to recovery. Local, Helen Johns said she had noticed a "white object" in the tree. "I kept an eye on it every now and again as I drove past not realising that it was a live bird and then I saw other birds feeding it, thought it must've been trapped," she said.

Source: <http://www.abc.net.au>

## Thankyou

A big thank you from WPT-Italy to Valter Gerlero and the directors of the Club Degli Psittacidi for their ongoing support of the World Parrot Trust. Dozens of PollyVision dvds have been sold through the Club's magazine and bird show tables, and the Club has helped very much in spreading the word about the WPT and encouraging new memberships.



# A Tribute to Ron Johnson



from his friend **George Geipel**

Ronald Johnson (above left) was a very special person and friend of the World Parrot Trust. I met Ron at Pierce Advertising School where he excelled in both Marketing and Advertising. In over 30 years he became my best friend and was like a brother to me. His first and foremost love was for birds of all kinds, especially the Blue-throated Macaw, and the Golden Conure. His best feathered friend was his macaw and constant companion "Polly". Even Multiple Sclerosis never kept Ron down, and you would often find him at pet stores and bird breeders handling birds and educating individuals about parrots.

Ron also loved baseball and was an encyclopedia on almost every major league team along with AA teams. Need to know about a player or stat? Just ask Ron. Even though his home team "the Philadelphia Phillies" weren't a top team he was always there rooting them on.

Ron's two big causes were saving the rainforest and protecting endangered birds and he did more than talk about it. Through his Will he left a very substantial bequest to the World Parrot Trust to pursue this worthwhile cause. Ron requested his bequest be split between the Blue-throated Macaw project and the Golden Conure Survival Fund.

I urge you to work with your professionals, so that this organization can continue its mission. We lost Ron in January of 2007, but his legacy will live on. You can do it too.

## Grants and Awards



WPT has been honored by the International Association of Avian Trainers & Educators

once again this year! We received the IAATE Conservation Award (and \$500) for our support of the African Grey Rescue reported in the February 2008 *PsittaScene*. In addition, we were awarded a grant of \$2,000 for the Blue-throated Macaw project.

IAATE has been supporting this project for 4 years now with over \$5,000 in contributions. The organization has also been instrumental in bringing attention to the work of the Trust in general. We are very grateful for this partnership.



The Point Defiance Zoo Conservation Committee (Tacoma, Washington, USA) is supporting the

Blue-throated Macaw fund for the 4th year with a grant of \$2,589. Since 2005 Point Defiance has donated almost \$10,000 to this project. Kudos to Point Defiance Zoo for their role in linking zoos to field conservation.

The **Folke H. Peterson Foundation** has continued its generous support of our work on the bird trade with a \$20,000 grant for work on the trade in Asia, Mexico and South America.

## Online

Main: [parrots.org](http://parrots.org)

Languages: Dutch, Finnish, German, Italian, Portuguese, Spanish and Swedish

Japan: [worldparrottrustjapan.org](http://worldparrottrustjapan.org)

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# Parrots in the Wild

