# PsittaScene

The Magazine of the World Parrot Trust

Autumn 2013

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World Parrot Trust

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## CONTENTS




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## From the Editor

New Look! More great content! We often joke in our house about those once-familiar product packages that suddenly sport the "New Look" emblem. It can be pretty surprising when the crackers you've known since childhood suddenly show up in a different box. We hope you'll be *pleasantly* surprised as you explore our new look, not just in *PsittaScene* but throughout our print and online publications.

For many years we've been having fun making quiet little changes to the look and feel of *PsittaScene* to better highlight the stunning parrots themselves and to make the magazine more inviting and easier to read. We want you to relish it, to enjoy and covet it and for each issue to remain on your coffee table until the next one arrives. These are lofty goals in an era when print publications are being budgeted out in favor of quicker and less fussy online versions. We certainly use the power of online publications too. But we've also surveyed our members and supporters and found that having the real thing – a print magazine – is of great value. We agree and strive to keep improving it and for you to enjoy using it to connect to broader content online.

This year we worked with a fabulous designer, David Occhino, to refine the "look" of the World Parrot Trust as a reflection of who we are and the work we do. David helped us translate those ideas visually and then to bring that look and consistency to all our publications (see page 20) including *PsittaScene*. As we pulled this issue together we discovered a fun coincidence – David recently adopted a Burrowing Parrot. What a pleasure to feature this stunning species on the first cover using David's design. Read up on intriguing new revelations about the genetics of these South American parrots; their origin, their history and their relatedness.

In this issue we also have a fascinating update on the Blue-throated Macaws we returned home to Bolivia in March as part of our conservation project, and a great feature about the benefits of maintaining parrots' flight abilities. That article was prompted by a letter to our Ask-an-expert page on www.parrots.org which in turn inspired an excellent podcast on the subject. Enjoy this issue and check in online for extras like that podcast – Jim McKendry and Charlie Moores are both music to your ears.

And as always, let us know how we're doing!

Joanna

Joanna Eckles

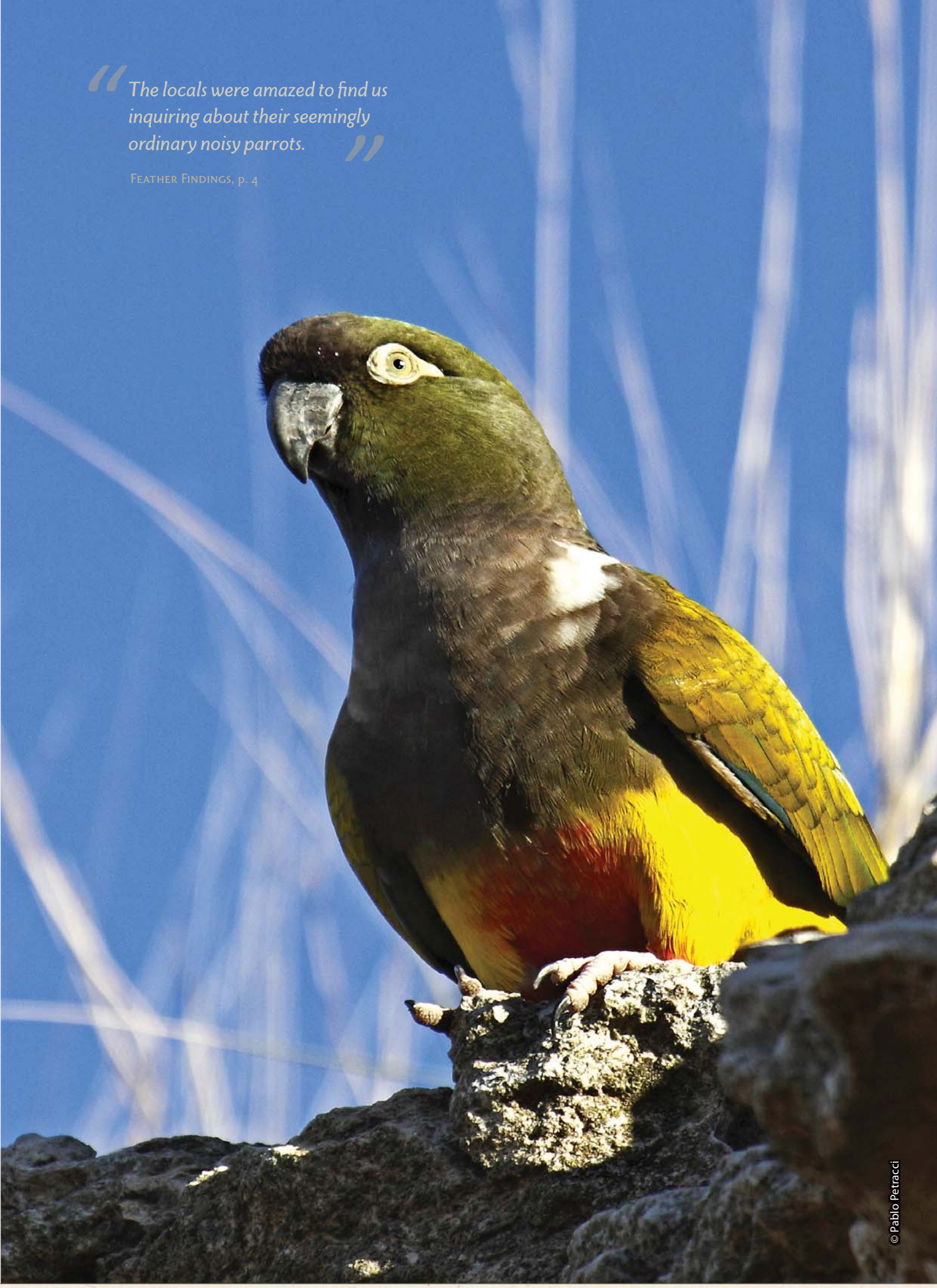
## ON OUR COVERS

FRONT Burrowing Parrots *(Cyanoliseus patagonus)* are also known as Patagonian Conures. They are famous for their massive breeding colony in northeastern Patagonia, South America. The cliff at El Cóndor is home to 70,000 parrots in 37,000 active nests. New research using genetic analysis of feathers helps us understand the relatedness and genetic mixing between populations. © Pablo Petracci

BACK The stunning male Plum-headed Parakeet *(Psittacula cyanocephala)* sports the namesake cap. The species is found in Sri Lanka, peninsular India north to Pakistan, Nepal, Bhutan and Bangladesh. This wonderful photo was the winner of the WPT's Indian Parrot Photo Contest held in 2010. © Bishan Monnappa

*"The locals were amazed to find us inquiring about their seemingly ordinary noisy parrots."*

Feather Findings, p. 4



© Mauricio Failla

The largest parrot colony in the world is home to tens of thousands of Burrowing Parrots in El Cóndor, northeast Patagonia.

# Feather Findings

By Juan F. Masello and Petra Quillfeldt

Imagine an unending sandstone cliff facing the Atlantic Ocean. In front of the cliff, orcas, southern right whales, Rio de la Plata dolphins, sea lions and a multitude of other creatures swim and jump. But our attention is irresistibly drawn to the noise coming from the cliff. The screams and calls of 70,000 parrots flying like skillful aerial acrobats. The Burrowing Parrots (*Cyanoliseus patagonus* – also known as Patagonian Conures) have returned to breed from their mysterious, unknown wintering places. There, in front of us, in El Cóndor, northeastern Patagonia, is the largest parrot colony in the world! It runs along 12.5 kilometres (7.5 miles) of sandstone cliffs and contains 37,000 active nests!

A frenzy of nest preparation and digging, together with a noisy exchange of news, surrounds us. We carefully watch, take notes, take samples and watch some more. We have been studying these birds and their breeding behaviour since 1998. Every year, something new and amazing turns up. But in 2007 and 2008 we set out to learn more. We embarked on a phylogeographic study of Burrowing Parrots – that is, to learn how these birds arrived here, where else they exist and how the different populations are related.

In preparation for this work we did weeks of patient research. We screened the pages of dusty forgotten books and journals to create a list of 130 potential places to search for other Burrowing Parrot colonies. A handful of colonies were known to science, but more were suspected to exist.


© Petra Quillfeldt

The nests in the study sector are marked in order to track reproductive success. The same pairs reuse nests for several years.

© Pablo Petracci

We left El Cóndor and started a long journey across the Monte region of Argentina. Monte is a formerly vast, spiky and dry scrubland – a sometimes harsh place that abounds in all forms of life. The Monte, with its unexpectedly high diversity of life and beauty, extends over half a million square kilometres (200,000 square miles), roughly a sixth of the Argentinean surface. Despite its value and beauty, the Monte is under serious threat: the expansion of the agricultural frontiers started to tear it apart, to fragment it. The annual rate of clearance of the native vegetation in the Monte, the most important habitat of Burrowing Parrots in Argentina, has been estimated at 3.7% annually in its southernmost portion. This clearance rate is 10 times higher than the world's average (0.4%). Recently, soybean fields appear everywhere, ruining the soil and the ecosystems, and, after a few years of profit, the farmers themselves.

Our list contained the names of many places, some long forgotten, but not many clues about how to find them. We hoped to find all the colonies and to unravel the species' evolution. We hoped to understand how we, human beings, through our actions have affected the course of more than 4 billion years of evolution. It was an amazing challenge worth the long hours of work in remote and lonely places.

© Mauricio Failla

Unending steppes are home to the Patagonian populations of Burrowing Parrots.

Andean Burrowing Parrot populations are much smaller than those in Patagonia. This photo captures almost all individuals belonging to this colony in La Rioja, Argentina.

(below) The search for colonies required long dusty treks, sometimes along the dry beds of seasonal rivers.



The main aims of our study were to:

1. Uncover the underlying population structure of the species, determine their geographic origins and suggest possible routes of colonisation;

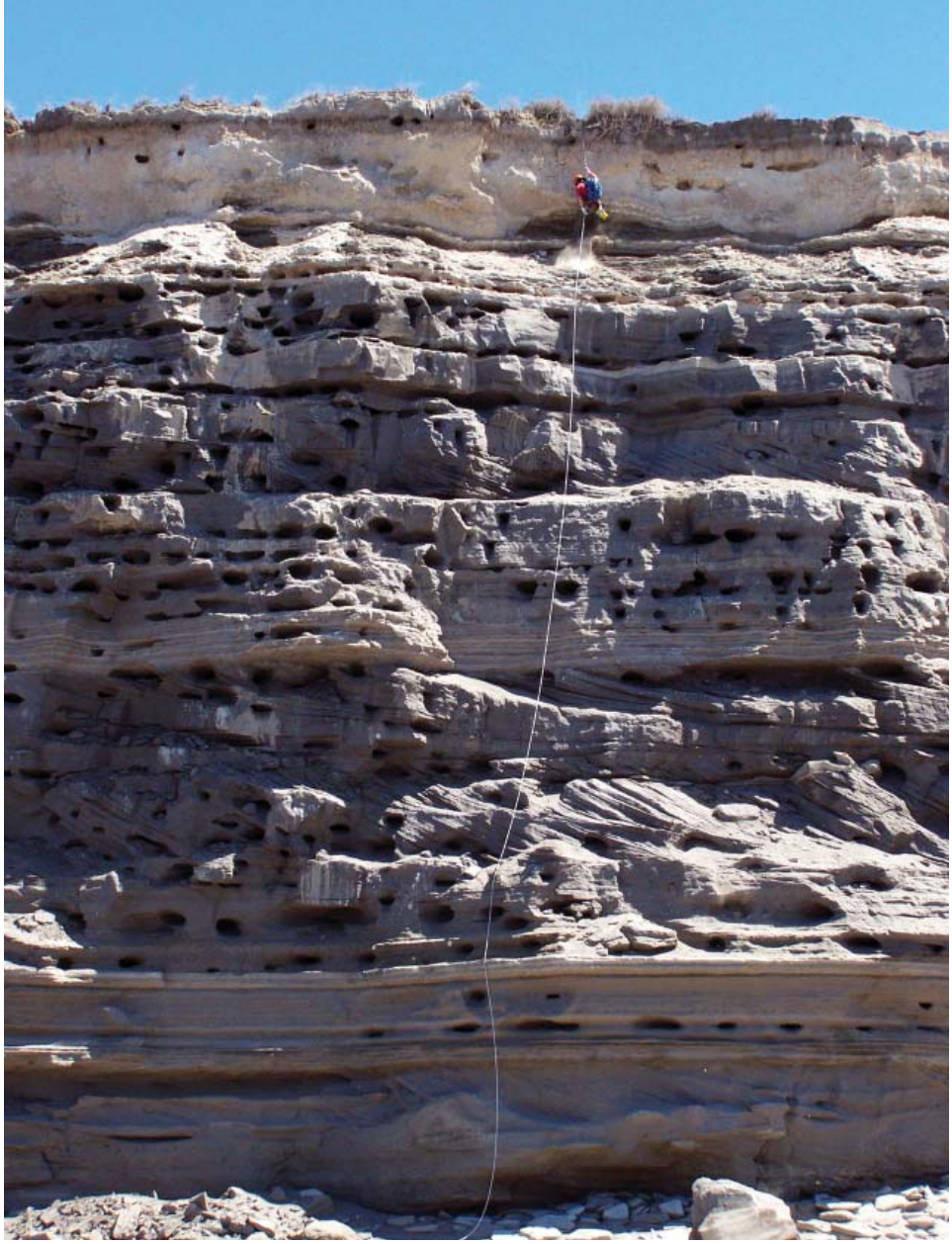
2. Study the role of the Andes as a potential barrier to gene flow among Chilean and Argentinean populations.

3. Determine if a hybrid zone exists between two subspecies *C. p. andinus* (NW-W Argentina) and *C. p. patagonus* (C-SE Argentina), and if individuals of a third currently recognized subspecies *C. p. conlara* (W-C Argentina) are hybrids as has been suggested.

4. Ascertain the extent to which ecological and climatic factors influence the population structure.

Considering the conservation value of this key species, its potentially restricted distribution with respect to climatic factors, and the unchecked degradation of its preferred habitats, these questions are important in determining conservation strategies.

We headed for the foothills of the Andes, then for the Patagonian steppes. We drove long hours mostly along dirty roads, sometimes off-road. Approaching one of our potential sites, we stopped in a small village where time seemed to have stopped long ago. The locals were amazed to find us inquiring about their seemingly ordinary noisy parrots – intrigued we found these lonely, dry places worthy of a research project. As we talked, we discovered that someone knew about the parrots; he had seen them in that little valley, a long time ago. As more and more people emerged to help, we found that someone else had heard parrots close to the stream some days ago. With this information, we started out on long exploratory walks – hours under the hot sun, until we finally reached a parrot colony. There we collected samples: blue, green and red feathers left behind after the parrots moulted. These naturally collected feathers held the answers to our questions. From them we would later extract DNA, analyze the genetic information within and weave together the story and history of these beautiful birds.



(left) The cliff at El Cóndor is 25 to 30 metres (85 ft) high which makes it safe for the parrots, but difficult for the researchers to access!

(below) A poacher's ladder at a *C. p. andinus* cliff is a reminder of the toll the internal pet trade in Argentina has taken on this population.

(bottom) Many bird species use Burrowing Parrot burrows for nesting and breeding.

In this way, one after the other, with the help of enthusiastic people, we found the parrot colonies we were looking for. After two seasons of fieldwork, driving 14,000 km (8,700 mi) across Argentina and Chile, we found what most likely represents all the breeding colonies of Burrowing Parrots – 66 sites in total. We were able to collect feather samples from 64 of the colonies.

During the first season – 2007 in Argentina – we made some very significant observations that deserve further study:

1. Several Argentinean ornithologists have pointed out that Burrowing Parrots and Elegant Crested Tinamous (*Eudromia elegans*)are the most representative bird species of the Monte vegetation. We found this assertion to be correct. In places where we recorded a healthy, not fragmented Monte, both species thrive. In places where Monte is highly disturbed or gone, both species are totally absent. This observation makes Burrowing Parrots (an easy bird to detect among dense vegetation) particularly useful indicators for the long-scale monitoring of the highly endangered Monte ecosystem;

2. Several other bird species, among them vulnerable raptors, were always present in Burrowing Parrot colonies but usually absent elsewhere in the Monte region. This suggests important relationships among the species;

3. Many bird species together with vulnerable bee and wasp species used abandoned burrows made by Burrowing Parrots for nesting/breeding. We have seen this throughout the Monte region. In many parts of this region, with few large trees, the number of holes available for nesting may be a limiting factor for many species. Our recent observations suggest a very important role for the Burrowing Parrot as a major provider of burrows for hollow nesters of the Monte ecosystem.

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© Carlos Yamashita

(above) Four adults and five juveniles (less than 4 months of age) show the very dark coloration of a *C. p. andinus* population.

(left) Patagonian populations have a very bright red abdominal patch - a sexual ornament subject to mutual selection.

Back in the lab our feather findings revealed a fascinating phylogeographic picture of the Burrowing Parrots. A picture full of surprises!

First of all, our analysis confirmed four population clusters: three in Argentina that we called Andinus, Patagonus 1 and Patagonus 2 and a distinct and different Bloxami cluster found exclusively on the Chilean side of the species' range. It is apparent that very limited gene flow across the Andes has rendered *C. p. bloxami* populations (= Bloxami cluster) both genetically and physically distinct from all other Burrowing Parrots. Thus, we found a clear separation between Chilean and Argentinean populations.

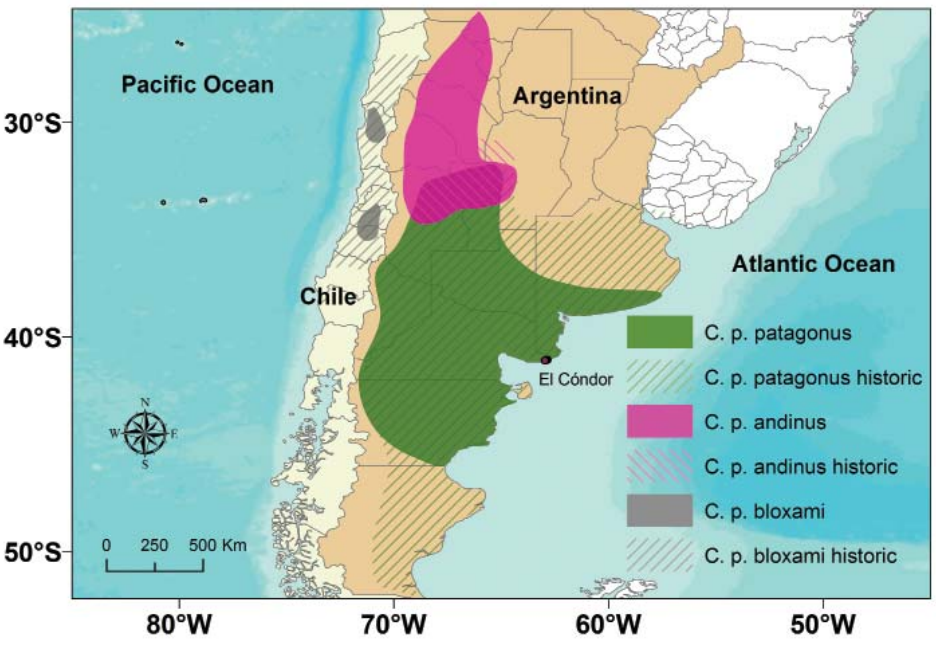
We found no support for the existence of the intermediate sub-species *C. p. conlara*. Thus *C. p. conlara* individuals are hybrids between the Andinus and Patagonus genetic clusters occurring in the province of San Luis, in central Argentina. The analyses also showed that in San Luis a hybrid zone has remained stable for several thousand years.

Lastly we were able to confirm a Chilean origin for the Burrowing Parrot, with a single migration event across the Andes, giving rise to all current Argentinean lineages. This migration happened some 126,000 years ago.

## Conservation implications

The clear separation between Chilean and Argentinean populations is very important from a conservation point of view. Burrowing parrots are listed as "threatened" species on the vertebrate red list of Chile. This is because only 5,000 – 6,000 individuals remain in two key regions of the country. The uniqueness of *C. p. bloxami* demonstrated in our genetic study, in addition with their relatively low numbers, implies that conservation efforts on this population are worthwhile and that any further threats should be avoided.

Historical and current distribution of the different morphological sub-species of burrowing parrots shows strong range contraction during the 20th century.



(right) Preening and socialising are a very important part of daily life.

(below) Just before sunset, thousands of Burrowing Parrots gather on the power lines near the colony at El Cóndor. An impressive display of colours, flight mastering… and very loud calls!

© Mauricio Failla

© Fabián Llanos

Burrowing Parrots are considered agricultural pests in Argentina. This label remains despite the fact that very little actual crop damage has been measured and where it occurs it is only in very specific locations. Our students have researched this issue and found actual crop damage due to parrots in less than 1% of claims. Nevertheless, Burrowing Parrots have been traditionally persecuted as a pest, and as a consequence several colonies have been destroyed or severely reduced in size. Unfortunately this was the fate of the formerly largest known colony of the species, located on the Quequén Salado River, in the province of Buenos Aires. In the mid-1970's this colony contained some 45,000 nests. Only a few hundred remain today.

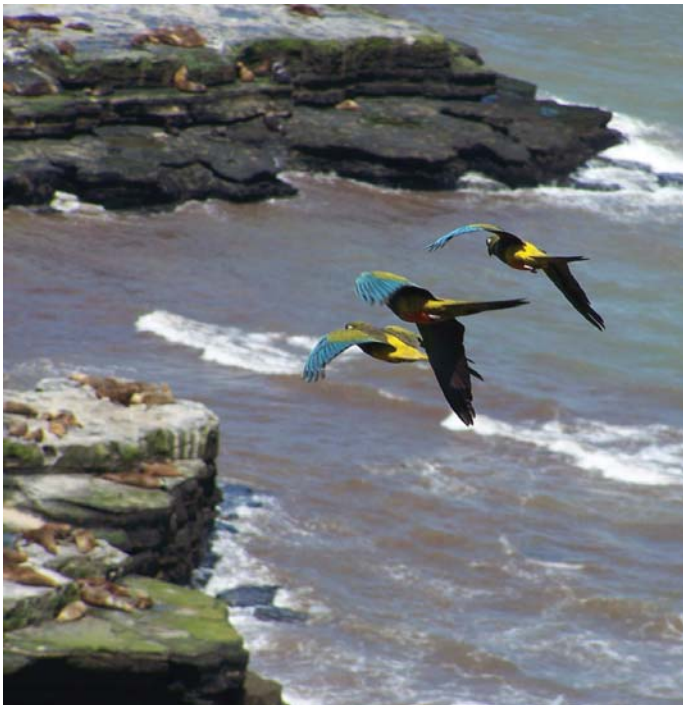
Collection of Burrowing Parrots for the pet trade is traditional in Argentina and has seriously affected the Patagonian populations. The damage has been severe enough that the regional government of the province of Río Negro has banned all hunting and trade. At the moment, this ban effectively protects all but seven Patagonian colonies, and includes the majority of the *C. p. patagonus* population (some 40,000 nests). But, we need to remember an important result of the phylogeography study: that the genetic diversity in Patagonia is partitioned into two genetically distinct, yet physically (phenotypically) indistinguishable populations (Patagonus 1 and Patagonus 2).

Because the birds look physically identical, they are impossible to manage separately. One additional problem with the *C. p. patagonus* genetic clusters is that 93% of the individuals belonging to them are located in a single colony - El Cóndor. Unfortunately, El Cóndor is still not legally protected due to unending conflicts among local parties. It is also located in a Monte area which is undergoing habitat degradation. Therefore, the continued existence of the Burrowing Parrot in Patagonia is uncertain.

A negative by-product of the protection of the Patagonian populations is the evident increase in commercial value of the *C. p. andinus* population. Our recent survey showed that the total *C. p. andinus* population numbers no more than 2,000 nests. These populations are distinctive both genetically and physically from *C. p. patagonus*. They comprise an evolutionarily significant unit that appears to be kept isolated by the Andes to the west and a stable hybrid zone to the southeast. We advocate here for a complete stop of Burrowing Parrot trade in the Argentinean provinces of Mendoza, San Juan, La Rioja, Catamarca, Tucumán, and Salta. This ban and the development of local conservation measures, particularly of the cliffs with colonies, are crucial for the survival of this population.

### A new project in Chile

During a visit to Chilean colleagues from the Universidad Católica del Norte, who cooperated with us in the phylogeography project, we learned about the critical situation of the Burrowing Parrot colony at Cerro Tololo, IV Región, Chile. This colony has been subject to intensive poaching over many years. It has managed to survive, unlike many other colonies in Chile, thanks to the protection organized (in their spare time and by their own means) by astronomers working at the Interamerican Observatory. On several occasions during the parrot breeding season,



© photos Petra Quillfeldt

Burrowing parrots are impressive acrobats. Watching them arrive to their colonies is an unforgettable experience.

the astronomers and their families camped in front of the colony in order to protect it from poachers. When we learnt about this imaginative and courageous conservation action, we felt urged to help them to protect the colony.

In 2009, with support from the WPT, we worked with Oscar Saa and Guido Castillo Iglesias, to develop actions for a renewed protection of the colony. We first designed an educational leaflet for the local people. Education has always been a centrepiece of our work with Burrowing Parrots. In 2009 and 2010, we visited the region around the Burrowing Parrot colony at Cerro Tololo, visited local schools, gave talks, delivered the first leaflets and got in touch with the locals in order to learn from them the local conservation situation. From that work, it was obvious that direct actions for the protection of the colony were needed. Together with Oscar and our colleagues at the university we agreed that the most effective way of protecting this colony would be hiring wardens during the breeding season. We started that direct action, with funds from the WPT, in the 2010 breeding season. As a result, "picos blancos" (white bills) were seen flying around the colony. This means that for the first time in years the adult Burrowing Parrots breeding at that colony managed to successfully raise fledglings. Burrowing Parrot fledglings are easy to distinguish due to the whitish bill, which turns black after the age of four months. We hope to be able to continue our work at Tololo and that the sky will be not only full of stars (for the astronomers) but also full of fledgling tricahues (for all of us)!

*This work was supported by the World Parrot Trust (WPT), the Research Commission of the German Ornithologists' Society (DO-G), the Max Planck Institute for Ornithology, and the Wildlife Conservation Society (WCS). Lab and statistical analyses carried out in cooperation with colleagues from the Konrad Lorenz Institute for Ethology (Vienna) and the University of Freiburg (Germany).*

A nestling about six weeks old is banded during regular growth monitoring. The whitish beak turns black after about four months.

By José Antonio Díaz Luque, Igor Berkunsky, Helen Müller and Katrina Heckendorn.

# Foraging Fundamentals

## UPDATE: training macaws for release

Six Blue-throated Macaws bred at Paradise Park in Cornwall UK were repatriated to Bolivia by the World Parrot Trust in March 2013. Each bird is identified by non-toxic paint on its chest.

It is 6:30 in the morning here in Bolivia. The day started out cloudy but there is no time to wait. We need to find native food in the forest for our 6 birds. Our team of volunteers doesn't care about the water level in the flooded savannahs or the number of mosquitoes trying to "eat" them. They just know how important it is to have all types of native fruits available in the parrots' fridge for our daily work. They love this work and the parrots!

The evolution of the macaws' dish reflects their remarkable transition from non-native foods including grapes, bananas and even parrot pellets (top) to a diet made up exclusively of native local foods in season like motacú, totaí and sumuqué palm, ambaibo, coquino, cuti, among others (bottom).

The six captive Blue-throated Macaws (*Ara glaucogularis*) arrived from Paradise Park, UK in March and made history by being the first of their kind ever repatriated to Bolivia (see *PsittaScene*, May 2013) for reintroduction to the wild. They are also a living laboratory for refining our procedures for diet change pre-release.

In reintroduction projects, familiarising the animals with the native diet is a crucial step towards maximising survival after release. The natural diet of the Blue-throated Macaw includes a variety of native fruits like motacú (*Attlhea phalerata*) and totaí (*Acrocomia aculeata*) palms. Based on observations of wild Blue-throats foraging, it is clear that the motacú is especially important. Besides its crucial food value, these palms also contain cavities used for nesting. Establishing the relationship between these birds and the motacú palm is a key to their thriving in the wild here.

Motacú grow in bunches and the individual fruit have a hard peel which protects the highly nutritious and fatty pulp which coats the seed. Macaws peel the motacú to reach the pulp which they scrape off the seeds. At Paradise Park the birds had a diet that included Kaytee Exact parrot food (pellets), seeds, nuts and a variety of fruit not native to Bolivia. Prior to release, the birds need to be completely switched to a native diet. We are happy to report that that switch has been completely made during their first few months in Bolivia.

In addition to the immediate goal of weaning the birds onto native foods, we also did extensive observation to test the efficacy of our diet change strategy as well as the success of different techniques for introducing native foods. We also tested various techniques to measure the amount of food that the birds manipulate versus the amount of food that they actually eat. We have refined our knowledge immensely by learning along with these six wonderful birds – Berto, Azura, Bella, Arlo, Cruz and Chica. Their arrival at the Blue-throated Macaw Conservation Center has been one of the most wonderful parts of the recovery project.

## Food Presentation

Food presentation is an art! We humans enjoy arranging and modifying food to enhance its appeal. We did the same for the birds. We offered a combination of native and non-native foods and worked slowly with the goal of: out with the old and in with the new! Initially the macaws were given exactly what was offered at Paradise Park including the Kaytee parrot pellets and a variety of non-native fruits, nuts and seeds. The selection of shelled and unshelled nuts was slowly reduced to Brazil nuts only (with shells), in gradually decreasing amounts.

Native food included a variety of 20 native species, most of which were in our database as foods that wild Blue-throats had been observed eating. We also included native plant species that other parrots have been observed eating, especially other wild macaws found in the same area as the Blue-throats including Golden-collared (*Primolius auricollis*), Blue-and-Yellow (*Ara ararauna*) and Chestnut-fronted Macaws (*A. severus*).

Native foods were only offered while each was in season. Some fruits were especially difficult to introduce, like the motacú. It was initially offered unpeeled, but the macaws weren't interested! We immediately began experimenting with different techniques; offering peeled motacú, strips of pulp, then just the pulp wrapped around Brazil nuts and

then finally we added back unpeeled motacú. As the number of peeled motacú and strips consumed by the macaws increased, the brazil nuts coated with pulp were quickly reduced.

For the first month we offered the non-native and native food together early in the morning. After that we began offering native food separately, 2 hours earlier, in order to continue increasing the bird's interest in and consumption of the native food. Along with the volunteers we spent hours talking about the diet change process in order to share observations of the birds' behaviour and to make steps forward every day.

## Feeding observations

Immediately after food was offered, the birds were observed for 2-4 hours almost daily, from a blind (hide), except when it rained during the feeding time. The six individuals are distinguished by non-toxic paint in different locations on their chests. During observations all food items taken by each bird were noted. A total of 461 hours 04 min of observations were made over 178 days summarized here. The food dish was removed from the cage every evening and food was not left in the cage overnight to increase the probability of birds feeding during observations. We weighed all the food of each type being fed and all the food remaining after feeding. The difference between what was offered and what remained, i.e. the food removed, was assumed to correlate with the food consumed. The macaws did not seem to remove and discard food they disliked from the dish unless it was on top of something they wanted!

In addition to the food offered in the dish, branches of native fruit were hung in the cage starting the very first week to imitate natural feeding situations. Later we started having one day per week when they were only offered food in branches. The only way for the birds to eat those days was to eat from branches. Branches were replaced when no fruit remained on them, the fruit was over-ripe, the macaws destroyed them or when branch day ended. In addition to natural branches of motacú we created artificial bunches by spearing motacú onto wire attached to

The motacú palm fruit is a staple of the wild Blue-throated Macaws diet. The captive bred birds were wary at first. But before long they learned to love and even prefer motacú to the non-native foods they grew up on. They also learned to eat it readily from natural bunches.

The effort to collect local food in season becomes all consuming for staff and volunteers as the macaws make their transition to their natural diet. ▸

◂ "Arlo" is quite relaxed at the conservation centre in Bolivia. He, along with his five fellow travelers, is adjusting extremely well to the sights, sounds and tastes of their native home where they will soon fly free.

the stalk of an empty bunch so that the nuts could be easily removed. We had to do this because natural ripe bunches were not always possible to find. Sometimes when we do find them and start to cut the branch down, all the fruit starts to fall too. You can see how our whole day was nearly consumed with foraging for native foods!

Branch day is a day where we feel very proud of the work we are doing. Watching the birds we can really see the changes in their behaviour. They have come so far from the days when they paid no attention to the branches at all. Now when one of them starts to eat, the other birds follow, having learned that the branches were not a dangerous thing. The birds are not only eating all the fruits we are offering them in branches, they are also learning to land at the branches like they do in the field. Instead of walking along the perch to look the branches over, they are flying and landing on them directly. This behaviour makes their adaptation to the wild much easier. I cannot wait to see them perching in a motacú bunch and eating fruits as fast as the wild birds!

## Preferences

The Blue-throated Macaws ate many pieces of the non-native fruits during their first months in Bolivia. Bananas and grapes were often taken, while oranges and limes were never touched. Plums and pears were also offered, but were rarely observed being eaten. The

birds always ate all of their shelled and unshelled nuts! In general we observed males eating more food and eating more often than females.

To change the diet completely from non-native fruits to native fruits took us exactly 3 months. At this time we have observed all birds eating between 13-15 different types of native fruits per individual and 19 of 20 different types offered overall. Our daily feeding observations have been very important in monitoring the diet change process.

## Motacú obsession

During the first months of diet analysis our focus was on increasing motacú consumption. Motacú is a huge part of our daily lives at the conservation centre! When unpeeled motacú were offered initially they were not observed being consumed. However, all birds were observed consuming some type of prepared motacú (pulp, strips, peeled).

All but one bird, Cruz, were observed consuming motacú strips. There was a progression in all of the birds´ consumption from the prepared motacú starting with the pulp coated nuts, followed by strips, peeled and finally to the unpeeled motacú. It appears that once accustomed to the taste, consumption increased. By the time unpeeled motacú were offered again a month after arrival they were almost immediately consumed by all the birds. Still, during that first month, motacú was never observed being taken from the natural or artificial bunches. Now, not only do the birds toss other foods aside to get to motacú, they also eat it readily whole from the bunches.

## Ground feeding, a no-no

Early on, the macaws often dropped fruit prior to fully consuming it only to then eat it from the bottom of the cage. As Blue-throated Macaws do not naturally eat from the ground, we wanted to discourage this behaviour. We did so by modifying the cage so they could not get to food that was dropped. This simple action decreased the amount of food removed from the bottom of the cage dramatically and sped up the transition to eating from the bunches and branches.

In conclusion, our first experience completely changing the diet of these 6 birds shows that it can be done. On one hand the diet change process allows us to dramatically increase the birds' skills prior to release, especially their ability to find and manipulate native fruits in branches; on the other hand we reduced almost to zero our feeding costs, which it is really important considering the extreme care we take with funds for the conservation project. The most important thing is that we can demonstrate for other colleagues and projects that this process, which is extremely important for the survival of released birds, is also a wonderful experience for the people involved.

Soon we will start to do the special pre-release training of our birds. At that time, we will start to offer native fruit in branches daily and we will stop offering food in the dish. This will be the next new and exciting step at the conservation centre and for these wonderful birds. We will be sure to let you know how it goes since you are an extremely important part of our conservation work too.

We would like to express our thanks to all the volunteers that have participated in the process. Special thanks to the local people at Sachojere who are continuously helping us to find native food and are so interested in how the birds are doing and when they will be ready to be free.

From Bolivia, listening to our six Blue-throated Macaws and many other native parrots echoing them from the field, we just want to say !Eternal life to the wild parrots!

# Flight Status

*from our* **Experts**

## From Bruce

I recently read an article on the top dangers associated with injury and death in parrots. High on the list was not clipping your bird's wings. The article noted risks of flying into windows, mirrors, hot pots and escape. They recommended that all pet birds be clipped. Another article I came across said that more than half of all birds lost were clipped and that fully flighted birds had a higher retrieval rate due to being better able to escape predators and often survive for long enough to be retrieved. I personally have had a few very close calls when my birds were clipped and stopped clipping about 2 years ago. I think having clipped birds made me complacent and gave me a false sense of security. With flighted birds I am far more aware of possible dangers. I have five dogs and my neighbours all have dogs and cats so a clipped bird would not last very long if it got out. A flighted bird would at least stand a chance of surviving long enough to be retrieved. For me, flight is a better option. The ultimate solution would be an outdoor flight and flight training. There are a lot of contradictory opinions on the matter. While both clipped and unclipped have risks attached, is one necessarily a much less risky option than the other? I would like to get some more thoughts on the subject. Thanks.

**Jim McKendry** is a parrot behaviour consultant with degrees in teaching and applied science. He has worked professionally as an avian trainer at Currumbin Wildlife Sanctuary and currently delivers annual workshops there on companion parrot behaviour and enrichment.

He is a consultant with individuals and organizations, writes for the World Parrot Trust experts panel as well as for Australian Birdkeeper magazine. Jim provides parrot behaviour and enrichment consultation services via his website at www.pbec.com.au.

See many more expert answers to parrot questions on our Forums, Experts & Bloggers section of www.parrots.org

## G'day Bruce!

Thanks so much for contacting the World Parrot Trust for some advice and additional food for thought on what is, in my opinion, one of the most significant issues surrounding the keeping of parrots as companion animals.

I am a major advocate of maintaining full flight capability of all parrots kept in captivity. I strongly feel that we need to make a fundamental shift away from 19th and 20th century paradigms of thinking about what is acceptable and not acceptable in regards to our expectations of companion parrots. We need to develop a 21st century approach towards their care, training and management.

Simply – parrots are built to behave in a range of specific biologically functional ways. The foundation of that functional behaviour is flight. Indeed, it is when we start to attempt to modify the anatomy of our parrots or create expectations of them that are completely incompatible with the expression of their natural biological tendencies that we experience "behaviour problems". It shouldn't be a surprise that when we keep parrots in contexts that afford them opportunities to socialize, fly, vocalize, establish territories, forage, breed and behave in biologically functional ways that we experience very few difficulties with their care.

In my nearly 20 years of keeping parrots, and over 10 years of consulting with owners, wing clipping is, in my experience, perhaps the number one precursor to many of the most significant behavioural health issues I encounter. Subsequently it is one of they key reasons for failure in pet homes. I don't subscribe to the common thought that wing clipping is "a personal choice". Would that be your bird's choice?

© Chris Wyness

Keeping flighted companion parrots sets up a wonderful set of relationship building opportunities and challenges the carer to maintain training and interactions with their bird based on positive reinforcement of behaviours such as this recall flight.

If we are genuine and authentic about promoting relationships with parrots as pets built on a foundation of respect, trust and appreciation then such decisions should be made based on what is best for the bird – not simply to cater for the limitations of the owner's experience or abilities.

A 21st century approach to companion parrot care embraces their flight capability. It challenges owners to develop both the appropriate training skills to manage flight successfully and to create an appropriate environment to ensure that flight is safe. Ultimately – it's our expectations of our parrots as pets and the environment that we provide for them that need to be modified – not their wings. The justifications and rationale presented for wing clipping really aren't valid today. Flying into windows, getting stuck in the toilet or the frying pan, escaping out the door are all examples of problems with the management of the flighted bird – not the capability of flight itself. I often use the analogy that if your pet dog ran out of the gate and bit the postman would you tie his legs up to prevent a recurrence or would you make sure the gate is locked and the dog is trained?

Parrots, unfortunately, are just about the last of our companion animals that are subject to socially endorsed physical modification. We no longer tail dock or ear trim dogs (at least not here in Australia) and educated people would consider de-fanging a captive venomous snake inhumane. These are practices that were once accepted but are no longer. It's a shame that some members of the veterinary community still seem to endorse wing-clipping. Promoting this approach to handling and training, provides much of the social validity for its continued practice. What we really need to be advocating and striving for is improved education for a modern approach to the keeping of a parrot as a pet and being progressive about our approaches to parrot care.

I wrote a three-part article for Australian Birdkeeper Magazine back in 2008 that provided a very thorough overview of the keeping of flighted parrots. You can access this material via backorder (details at www.psittascene.org). The second and third articles provide insights into the training and management of flighted companion parrots. The first article in the series discusses much of the following rationale for maintaining flight in companion parrots.

### Let's Define the Boundaries

Any discussion of flight and companion parrots really needs prefacing with a clear distinction between the concepts of a "flighted parrot" and a "free-flighted parrot". The focus of this article is strictly on the philosophy, training and management of "flighted" parrots – birds allowed full flight capabilities but kept indoors or within a suitable flight enclosure. It is critical for parrot owners to realise that successful and ethical keepers of flighted companion parrots know

Well-designed outdoor enrichment aviaries provide opportunities for flighted companion parrots to fly, explore, forage and be stimulated by movement and weather within a safe and secure facility.

their limitations, their bird's limitations, and have a conscious awareness of controlling as many of the potential variables that come into play with the keeping of flighted birds as possible. This goal is only achieved through the implementation of proper training and the provision of suitable and safe housing. When we choose to keep a flighted parrot we must also accept an essential set of responsibilities and obligations. These are:

- Ensuring the safety and welfare of our birds at all times through careful arrangement of their flight environment and;

- Protecting the biodiversity and biosecurity of our surrounding natural environment by not allowing a flighted parrot outside of a flight enclosure or secure indoor flight space.

Adhering to the above guidelines will ensure that risks associated with flight are minimised or completely negated.

## Why have a flighted pet parrot?

In my experiences as a keeper of flighted companion parrots for many years, working professionally with free-flighted birds at Currumbin Wildlife Sanctuary, and through consulting with pet parrot owners on behaviour management, I believe maintaining flight is so important for our parrots for a number of reasons:

Increase in functional behaviours: Parrots that have retained their flight capabilities can be observed functionally engaging with their environment at higher levels than parrots deprived of flight. We often perceive this enhanced level of engagement as an increase in confidence and I would certainly agree with that. Functional behaviours, such as foraging and exploratory behaviour provide the foundation for better behaviour in companion parrots. Flight facilitates a significant enhancement in a parrot's control over its environment by providing more decision-making and choice. When empowered with these opportunities, parrots seem to cope better and adapt more successfully to the limitations of the captive environment.

Reduction in development of stereotypical behaviours: As an increase in exploration and engagement with their environment is observed, often there is a corresponding decrease in the development of stereotypical behaviour. Whilst flight is not the magic cure for all behaviours such as feather picking and other significant behavioural health issues, it is often a critical component of a management plan to avoid these developments or reduce their occurrence once established.

Reduction in level of dependency: The next step along a continuum of behavioural development that is supported through flight is a reduction in the level of dependency on the human caregiver. Parrots deprived of flight often become almost totally reliant upon humans for movement around their environment. Flight is important to a parrot in supporting physical engagement with its environment. With that engagement comes a degree of independence that may reduce behavioural problems associated with an over-reliance on humans for social and environmental stimulation.

Enhancement of relationship with owner through improved training and reinforcement schedules: Keeping a parrot that can fly challenges the companion parrot owner to develop their own skills. The training and management of a pet that is empowered

Flighted companion parrots exhibit higher levels of engagement with their enrichment and increased levels of confidence in movement, coordination and functional behaviour.

The anatomy of a macaw wingspan says it all. These animals are built to fly and should be provided with opportunities to do so in captive environments to maintain their behaviour and physical health.

with independence and with greater influence over its environment is challenging and empowering. It is a wonderful learning and relationship building experience for both the companion parrot and the owner. The relationship between an owner and a flighted pet parrot demands a foundation of trust and positive reinforcement history. To reduce over-dependence and increase your role as a teacher and positive presence in your parrot's environment can be wonderfully rewarding and enriching.

Therapeutic benefits for behavioural recovery and rehabilitation: I first started working with other companion parrot owners on supporting the behavioural and enrichment needs of their birds back in 1999. Flight has been critical in the behavioural recovery of many birds I have worked with, particularly those that have developed feather-picking behaviours. Often there has been a need to establish outdoor flight enclosures to further enhance the environmental scope and opportunity for functional behaviour. Outdoor flight space offers immense benefits in reducing or completely avoiding behavioural health issues. I would certainly encourage parrot owners to consider constructing a safe and secure outdoor flight enclosure for their pet parrot. I have worked with a number of clients on the design of such enclosures and the shift in their parrot's experience has been brilliant to witness.

Earlier diagnosis of change in health: Early diagnosis of the state of health of a pet parrot can be absolutely critical in ensuring that illness is treated quickly. There is no argument that a parrot that engages in flight as part of its daily repertoire will offer a more overt and observable indication of a change of health than a wing-clipped or flightless parrot. Parrots that do not fly already tend to be inactive for longer periods of the day than a flighted bird. Daily food intake may also be less in wing-clipped birds than in flighted parrots. Resting durations are often longer in wing-clipped birds and some may even present less vocal behaviours than might be expected from flighted birds. This inactivity can result in a keeper failing to recognise early symptoms of illness normally associated with lack of activity, lack of engagement in enrichment, and lack of interest in novel objects in their environment. My morning walk around my aviaries will quickly inform me if one of my parrots is not 100%, simply based on my observations of their activity level, keenness to fly to the hand, and general mobility around their enclosure.

Full flight of captive parrots offers so many benefits. I am really only scratching the surface of developing a full argument for maintaining flight in our pet parrots. Hopefully I have offered a reasonable alternative to much of what you have read elsewhere. I would encourage WPT members to access the article series I put together for ABK Magazine to develop a full picture of my own philosophy and approach. Also note the podcast noted below. A flighted companion is indeed a challenging one. The 21st century companion parrot keeper will embrace that challenge and hopefully leave a legacy for future generations of companion parrot caregivers that respects and caters for flight in their birds.

**LISTEN NOW**

**New podcast!**

*Keeping Parrots Flighted*

Charlie Moores with Jim McKendry

**www.psittascene.org**

# Thanks...

Our heartfelt thanks go to David Occhino (left) for his contributions to the World Parrot Trust over the past two years.

David's company, David Occhino Design, specializes in the creation of premium custom graphics for the advertising, television and motion picture industries. He has worked with many high-profile clients, including the Walt Disney Company, NBC/Universal, Charles Schulz Creative Associates (owners of the Peanuts™ franchise), the author Jackie Collins, and various movie producers such as Mark Ordesky, executive producer of the LORD OF THE RINGS trilogy and others.

David donated his company's design time to help us update our look and bring consistency to our publications. His skill, efficiency and professionalism have made him outstanding to work with!

WORLD PARROT TRUST


FLOCKTALK
WORLD PARROT TRUST eNEWSLETTER
July 2013 | Issue 71
Connect With Us
In this issue...
Guinea Confiscated Parrots
More Fly to Freedom
PsittaScene Magazine
WPT Presents:
Parrot Care Podcast:
Preparing for Avian Emergencies
What's new at parrots.org
Ask an Expert

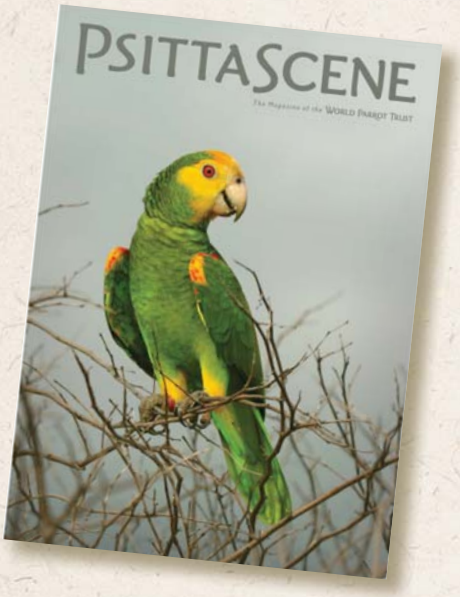
David initially approached the Trust as a new member and supporter - one who spent a year researching parrot needs before adopting a Burrowing Parrot (Patagonian Conure) named Bonsai. David is an extraordinarily talented individual who has very specific skills and a strong desire to share them.

One of David's specialties is typography - the look and feel that can be created from text. He worked through an exhaustive process with us to capture the personality of WPT using text to create a special "wordmark" (above). At the same time David was working to define and solidify our look using type, colour and imagery. That "new look" is now being systematically carried through our publications in print and online.

With the groundwork laid in typeface and colour, the next big project was a beautiful revision of our website (parrots.org - far right) and eNewsletter (Flock Talk - left). Both are packed with information and are increasingly the first place people encounter WPT. Pulling together the same consistent look is a huge benefit and helps visitors more easily recognize us elsewhere.

The next project was a brand new membership brochure (right), which is also a key point of contact with people all over the world. This important piece is one we had been hoping to update for some time. David's engagement made it happen – with stunning results!

And lastly, *PsittaScene*! We worked with David this spring and summer to bring many of the new "design" elements into *PsittaScene* while continuing to focus on fabulous parrot photography and content. We are lucky to have access to a great stream of amazing images. We want the design of *PsittaScene* to be elegant and for parrots to remain center stage. David helped us to update our look while keeping the layout and functionality we have developed over time. We hope you like the look!




The new parrots.org will go online in the next few months - stay tuned!


For more of David's design work visit davidocchino.com

# WPT ONLINE

**parrots.org**

- **New** parrot care podcast "Preparing for Avian Emergencies" with Ellen Cook
- And while you're there listen to the podcast featured in this issue of *PsittaScene* (p. 18) - "Keep your Parrot Flighted " with Jim McKendry and Charlie Moores

**facebook**

- **www.facebook.com/** worldparrottrust
- **New: www.facebook.com/** Savelories
- The Lory Conservation Network (LCN), first formed in 2009 by the World Parrot Trust. LCN links zoos, bird parks, and lory exhibits around the world with conservation projects designed to protect lories and lorikeets.

**twitter**

**twitter.com/ParrotTrust**

- 2,799 followers

**YouTube**

**youtube.com/parrotsdotorg**

- Check out several Burrowing Parrot videos

FlyFree
www.parrots.org/flyfree

**Other WPT websites:**
parrots.org/flyfree
parrots.org/wpt3
parrots.org/bossorange
savelories.org

FLOCKTALK
WORLD PARROT TRUST eNEWSLETTER

**parrots.org/flocktalk**

- WPT monthly eNewsletter
- Launched September 2007
- Keep in touch! Sign on today!



## EVENTS

### Susan Friedman Workshop

**October 19-20, 2013**
**Seattle Parrot Expo**
**Washington USA**

Susan Friedman PhD will present a two day Behavior+ Works, Living and Learning with Animals workshop at the Seattle Parrot Expo. Saturday and Sunday from 9-5

www.behaviorworks.org

### IAATE 2014

**February 5-8, 2014**
**Dallas, Texas USA**

The International Association of Avian Trainers and Educators (IAATE) 22nd annual conference will be held in Dallas, Texas with field trips, workshops, speakers and networking events. IAATE was founded to foster communication, professionalism, and cooperation among those individuals who serve Avian Science through training, public display, research, husbandry, conservation, and education.

www.iaate.org

## NEWS

### Night Parrot Re-discovered

Among Australian scientists and bird-lovers, the elusive Night Parrot (*Pezoporus occidentalis*) has been something of a Holy Grail. The small, ground-dwelling parrots all but disappeared in 1912 and have been observed only a handful of times in recent years. A few were reportedly seen—but not photographed—in 1979 and 2005, and two dead parrots were discovered in 1990 and 2006. Scientists have spent near-countless hours in the Australian bush seeking the lost species, but until now no birds have definitively turned up.

But in early July 2013, naturalist John Young made a startling claim: After spending 17,000 hours and 15 years in the field looking for the Night Parrot, he has not only photographed one but captured it on video for all of 17 seconds. He showed off some of his photos and six seconds of video at a closed-door session held at Queensland Museum on July 3. He used his own recordings to attract Night Parrots in 2009 and 2012, but never got close enough to see. Playing the audio again on May 25 of this year, he said, led to his discovery and the resultant photographs.

*Source*: blogs.scientificamerican.com

### Teaming with Disney

The World Parrot Trust (WPT) has been awarded a $24,750 grant from the Disney Worldwide Conservation Fund (DWCF). The conservation grant recognises WPT's efforts to conserve the Yellow-shouldered Amazon Parrot (*Amazona barbadensis*) on the island of Bonaire, Caribbean Netherlands, through their ongoing partnership with Echo, an NGO based in Bonaire.

Dr. Sam Williams, Director of Echo, states: "The ongoing support of the Disney Worldwide Conservation Fund is crucial to the long-term success of this project. Their commitment has greatly assisted us in our efforts to safeguard the parrots and to build local support for conservation as a whole."

The Yellow-shouldered Amazon (bottom) is a flagship threatened species restricted to a few islands in the Caribbean and parts of northern Venezuela. WPT and Echo are working to address habitat degradation and the consequent human-wildlife conflict through integrated population monitoring to understand population dynamics and novel approaches to reduce parrot/human conflict.

The Disney Worldwide Conservation Fund works to protect species and habitats, and connect kids to nature to help develop lifelong conservation values. Since its founding in 1995, DWCF has supported more than 1,000 conservation programs in 112 countries.

*Source*: WPT and Echo

© Davide De Guz

### Trafficking Convictions

In late January of this year a large shipment of wild-caught birds was seized in Guinea, Africa. The confiscation of over two hundred birds included a hundred Senegal parrots, a dozen Timneh parrots, parakeets and cockatiels, Red-headed lovebirds, and others. The organization Guinée Application de la Loi Faunique (GALF), a branch of the Last Great Ape Organization (LAGA), led the confiscation and cared for the birds, with the help of WPT-sponsored veterinarian Dr. Davide de Guz.

In July, after the birds were rehabilitated they were set free in two releases on Tamara Island, off the coast of Guinea. They are doing well in the forests surrounding the release site. The released birds are flocking together and foraging on local foods as well as utilizing supplemental foods provided by keepers. It is hoped that once they are established the birds will begin to breed.

WPT provided funds for food, veterinary care, a keeper, and the pre-release aviary for this, the first rehabilitation and release program for confiscated parrots in Guinea.

The confiscations and releases were followed by the news of several arrests – a welcome sign of enforcement not often seen in this area. In June a Chinese man was arrested in Guinea-Conakry for trafficking protected species including parrots. In August, also in Guinea-Conakry, a major wildlife dealer, Ousmane Diallo, was arrested. He had been a fugitive since January and was finally apprehended, arrested and sentenced in July to a fine and one year in prison. And in Cameroon, five parrot traffickers were arrested and 75 Grey Parrots were confiscated. The parrots are awaiting release at the Zoo in Yaoundé, the capital of Cameroon. The traffickers are also behind bars.


## MORE ONLINE

Read more online with easy links to related information including:

- More amazing images of Patagonian Conures and the team at work
- Links to our podcasts including "Keeping Parrots Flighted"
- Links to years of Blue-throated Macaw articles and updates
- Links to all the websites in our articles, news and events

www.psittascene.org

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