

parrot



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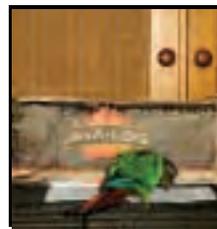
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Editorial note:

As numerous parrot species threatened of extinction due to severe habitat loss find refuge in captive breeding programs, Parrot life magazine has found refuge in the ark of the Hagen Avicultural Research Institute facility for the near future. Please take note that our previously published contact information is no longer valid; we can now be reached through the HARI web site. We have honored our subscriptions with this 4th issue and will be mailing our Parrot Life-HARI Chick 2007 Calendar before the New Year for all our subscribers and collaborators as a token of appreciation for your continued support.

WE will no longer offer subscriptions for the magazine. We apologize for those who had requested a subscription in the past year. We have conserved your request and will nonetheless mail out this 4th issue, yet we have not cashed in your checks or money orders, as the uncertainty of the future of the magazine was undetermined. For those who had subscribed in the past, please contact us for any questions at josee.bermingham@rchagen.com.

We would like to thank our collaborators for their editorials, as this issue would not have been possible without them. This issue features a variety of insightful articles we hope will contribute to the advancements in responsible care giving for both the companion parrot owner and aviculture.

Parrot Life magazine will continue to be available at specialty bird stores, avian veterinary clinics, avian conventions, symposiums and birds clubs internationally.

We thank our readers once again for their continued support

Sincerely Josee Bermingham, Editor



My boys Jesse and Derek, socializing baby Caique chicks. The future of parrots depends on the next generation, lets share our knowledge with them, they can help us remember how our passion for our feathered companions took flight.

EDITOR: Josee Bermingham, contributing Editor: Sylvie Aubin.
 ART DIRECTOR: Dale Robinson, Jagwar Graphics.
 COVER PHOTOGRAPHY: Robert Rondou.
 Candling an Orange Wing Amazon egg at 17 days of incubation.
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INFO SPOTLIGHT

What is TROPIMIX for small birds?

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TROPIMIX'S nutritionally balance formula

Contributes to clear vision, responsive central nervous system and healthy respiratory tract.

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Vegetables: Carrots

Legumes: Soybean, green peas, red lentils, peanut kernel.



AVICULTURE / THE NURSERY

By: Josee Bermingham AHT
Photo credits: Robert Rondou



*A fascinating struggle
to the first breath of life, assisted by
delicate human intervention.*

Assist Hatching: A journey from the egg till fledgling



1



2

2 out of 4 green wing macaw eggs pipped too early in the nest and were retrieved for assisted hatch.



3



4

Candling of the eggs revealed the extent of the malpositioning.



5



6

Careful intervention opening the egg, with small tweezers.



7



8

Frequent hydration of the membrane and placement of chick in the aqua brooder contributed to a successful hatch.



9

Remnant egg yolk membrane was tied with dental floss and then cut to aid the detachment process.



10



11

A diluted iodine solution was applied to umbilicus.



12



13

Assisted hatched chicks developing normally at 10 days of age. Chick at 5 weeks of age with growing feathers



14



15

Chick at 5 weeks of age with growing feathers



16

Chicks were placed together with parent raised clutch mates at the fledgling age.

Painting by: Paul Staveley
See more of his work on page 47



NO BAD

BEHINDS

The celebrated British dog trainer, Barbara Woodhouse, once started a dog training revolution by titling one of her well-known books "No Bad Dogs". If only we could get our parrot owners to say the same thing! Other exotic animal pets also have their fair share of complaints. In this article, we will use birds as our primary example, but the principles mentioned apply to many different types of pet.

Many bird owners, particularly those who are inexperienced, tend to assign blame to a pet parrot for behaviors such as screaming, biting, messiness, or destructive chewing within the house. Parrot owners need to be prepared and educated to deal with problems. "Forewarned is forearmed" never rang truer than in this business! No need to scare away potential owners either. Just remember that by putting a natural perspective on all types of parrot behaviors, owners are more likely to understand the parrot's point of view. We all need to be "parrot whisperers". This means that we need to speak and understand the language of the parrot, and not just the vocal cues. You want your customer to be happy with the bird they have selected. You need the owner and the parrot to be happy or they will dispose of the pet eventually. This will result in the loss of a potential long-term customer.

Behavior Problems - Your Real Loss Leader

Reduced revenue from lost pet business isn't always a matter of margin. Did you know that the biggest cause by far of the failure to keep a pet is not death due to illness or injury? Nor are the majority of pets lost because they have escaped, ran away, or been stolen. Allergies aren't the issue either. Sadly, the number one reason for the failure to keep a pet is that owners simply stop wanting the animal. The pet was noisy, it scratched the kids, it destroyed the house, it was boring, it did not form a successful relationship with the owner or family. Ask any shelter worker how many dogs are euthanized annually because the owners could not cope with the dog, or ask animal rescue workers how many poorly socialised 'problem' pets are literally thrown out into the street. If the owner(s) have a happy relationship with their pet, they will keep it and spend money on it. But how can owners be encouraged to develop that happy relationship? Interaction with the pet is a key aspect. Parrots that are asked to come out of the cage on a daily basis, and that can do tricks or make special sounds on command are obviously much more likely to become a treasured member of the family than a parrot that must be confined to his cage and represents a "task" rather than a joy. The parrots that fall into the latter category often end up in the classified ads, garage sales, or rescue centers after having been passed around from one unsuitable home to the next.

New Training Opportunities

Fortunately, there have been significant advances in the techniques by which owners can communicate with (and manage) their pets. Currently, all those in the pet industry should be familiar with the latest interactive training program for dogs, horses, many exotics, small animals, and birds - it's called "Clicker Training" (CT). It's easy, it's cheap, it's fun, and it has already taken the world of pet training by storm (just check the Net). Clicker training can be employed both to solve problem behaviors and to teach the animal tricks. (CT) is an accessible, highly focused refinement of a well-established training method called 'operant conditioning', where trainers signal to an animal that their correct behavior is going to be reinforced with a reward. The sound of the clicker tells the animal that whatever it was doing at the exact moment it heard the clicker has earned it a treat - usually a food item (sometimes praise or petting). Over time, a click sounded whenever the animal has performed correctly, followed by a reward, will prompt the animal to repeat that behavior whenever the clicker is used. The click only means one thing to an animal: "I did something right and now I hope something good will happen". Animals are quite capable of remembering past efforts and will embroider their behavior in a strategy to get the reward (the click and the treat). This is especially true when the schedule of reward becomes irregular - ie not a treat every time. Once the animal understands the meaning of the click, it will go to great lengths to please the trainer.

Clicking devices are available for bulk sales through several outlets, although at the current time most consumers have obtained them through direct sales Internet sources. Commercial devices make a cricket-like noise that is unique and more consistent than any noise we humans can produce, and their use evolved out of whistles used in dolphin training. Commercial clickers are small plastic boxes about the size of a domino, with a metal tongue depressed by the thumb. The clicker is fairly loud and the sound should be introduced to the pet from behind your back or within a pocket. Many owners simply make their own clicker using the lid of a juice jar or babyfood jar, sometimes making the "dimple" larger by pushing it out on the corner of a table. The dimple's center makes a popping or clicking noise when pushed out. Staple removers (staple "biters") also make a quiet but distinct clicking noise when depressed twice in rapid succession. Think of a clicker as a special signal with the rough equivalent of "good dog" or "good parrot". What happens to your dog when you ask him to sit and he complies? You quickly say "good dog" and often a pat or even a treat follows. The click is a more powerful equivalent of "good dog". The click is a bridge to conveying a message ("that was what I wanted and now you will receive a reward!").

**NO BAD
BIRDS**

By: Louise Bauck BSc, DVM, MVSc.

What is so Special about CT?

CT has several key advantages. Because the method uses positive reinforcement instead of force or punishment, all of the pet's vitality and intellect works 'for' the owner, rather than against. The training itself builds trust, and often feels like play. Animals can learn at any age, and with any behavioral "baggage". But clicker training is overwhelmingly successful when it comes to building a "bond" with the owner, because of the focus on positive reinforcement. Here's a case in point that shows how effective clicker training can be:

A 6 month old citron-crested cockatoo is doing extremely well at home. Like many young cockatoos, he is very affectionate and constantly seeks attention from the owners. The owners are well educated in managing juvenile parrots, and give him plenty of attention while maintaining dominance and control. There is just one problem. Large, messy droppings are not appreciated in the family room where the young bird spends much of his time. The owners have noticed that the parrot often relieves himself shortly after coming out of the cage, and that immediately prior to the act he waggles his tail slightly. First, they begin their CT program by simply teaching that the sound of the click means a reward - in this case, attention. Release

from the cage, parrot neck scratches, head rubs, and time spent with the owner being handled are prefaced by a "click" for approximately one week. The owners test the bird's response at the end of a week by clicking while the bird is playing quietly on the sofa.

The bird immediately approaches the owner with the head down, asking for a rub. Now they plan a 'cue' for the new behavior: eliminating on command. "Potty-time" is the verbal cue selected, and is combined with holding the bird above his play station shortly after being released from the cage. Before any of these cues are given, the owners avoid handling their pet after his release from the cage, and watch him carefully for signs of wanting to go. As soon as the tail wag is seen, the bird is quickly but quietly picked up and the cue given ("Potty time!"). After a few minutes, if a successful response is produced, the bird is rewarded by an immediate click (during defecation if possible) and a treat (head rub or underarm scratch). A failed response is simply ignored, to be tried again on another occasion. Soon the bird will perform well when simply asked to go. Eventually the bird will not require the constant reinforcement of the click, and the owners can use the clicker to move on to a new behavior or "trick".

**NO BAD
BIRDS**

By: Louise Bauck BSc, DVM, MVSc.

Rules for Getting Started

The following are basic pointers common to most types of clicker training (I have used dogs, birds and small animals as examples):

- 1** Find out what the animal really wants. An irresistible food treat is common - liver for dogs, fatty acid supplements for ferrets, sunflower seeds for parrots, raisins for chinchillas, etc. Keep treat size small, so that the trainee can consume morsels quickly and not fill up.
- 2** When you first begin with a new behavior, keep distractions very low. Ensure that sessions are not too long, and make sure your animal is comfortable in his surroundings. If your pet doesn't want to work, try again later. Clicker training means that the pet has the option to cooperate.
- 3** Work with one pet at a time or use different sounding clickers for each animal. Spend the first week teaching only that the clicker signals that a reward follows - that's all.
- 4** Practise precision timing. Click during the desired behavior, not after it is completed. Expect your pet to end the behavior once the click has sounded. Give the treat after that.
- 5** Test the response to the clicker after one week - does the animal expect a reward? With some pets, it may not be an obvious response, so don't jump to conclusions too quickly.
- 6** Click once (in/out). If you want to express extra enthusiasm, occasionally increase the number of treats, or supplement with lavish praise (create the "jackpot" effect). Do not increase the number of clicks.
- 7** Keep the clicker with you or have it handy so that you can use it when you spot the desired behavior. Give a cue when you see the action required (ie. saying 'down' when you see the dog is about to lie down).
- 8** Or you can give the cue and create the action (ie. saying 'up' and using your hand and a perch to get the bird to step up). Then click and reward while the behavior is performed.
- 9** Now continue to reinforce that behavior by giving your cue when you have the clicker handy. Click and reward when your cue is successful. Once well learned, the click may eventually be discontinued as you move onto the next trick, but continue to reward cue response.
- 10** Move onto another desired behavior or trick by thinking up another cue and repeat steps (7) and (8) above.
- 11** Raise or lower your criteria as needed. If your animal seems confused, tired, or just not getting it, you may be asking for too much too soon. If the trainee seems bored or mechanical, try going to the next level.
- 12** Don't order the animal around - clicker training is not based on commands. Don't scold, yank on leashes or spank - these are not part of clicker training.
- 13** Fix bad behavior by clicking good behavior. Click the ferret for relieving himself in the proper spot. Click for chewing a bone, and not a slipper. Instead of shouting at a barking dog, click when he's silent. Cure leash-pulling with a click during those moments when the leash goes slack.



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Everybirdie's a *critic!*

We watch, listen, read, try and taste anything new and old on the bird market!

Then we critique and praise.

The AVIATOR HARNESS & LEASH

by the Parrot University
<http://www.theparrotuniversity.com/aviator.php>



Several companion bird owners and Lucy Romanoff from Aquanimo Pet Store have tested the new revolutionary parrot



harness for this product review. From the smallest to the largest sizes all feedback have been quite favorable. It's one piece design feature is clearly more suitable and user friendly than past harnesses designed for avian companions. An avant-garde, marketing edge to this product is the Instructional DVD that has been edited to accompany the purchase of the harness, an added feature that can be indispensable for the first time parrot owner.

Lucy Romanoff tested the new harness on a 15 years old macaw that had never before cooperated to the placement of a typical parrot harness. Without even viewing the instruction DVD included with the purchase of the harness, Lucy was able to easily place the harness without any restrictions. The adjustment of the harness necessary for the initial adjustment was slightly difficult, but nonetheless incomparable with the difficulty she had experienced in the past with other brands. Also noted was the practicality of the extensible shock absorber leash attached to the harness.

A concern was expressed from the large macaw owners that tested the harness distributed by Parrot Life for this critic, concerning the reliability of the plastic buckle, although as of yet the harness has still proven to be safe and escape proof, as it's manufacturer claims. The recommended sizes suitable for respective species listed are accurate for the species we've tested.

Price is comparable, slightly more expensive in Canada as it is an American product, yet there is no significant difference. Unfortunately there is no price difference for the sizes suitable for cockatiels versus the larger macaw harnesses.

Danielle Hammond's 29 month old Hahn's macaw Maxy tried the aviator harness for our review.

"Putting on the harness is fairly simple. I place a towel around her to stop her grabbing it with her feet so that I may place it over her head. Even though I practiced putting my hand over her eyes as they show in the video; she is not crazy about this part! Then I easily affix the rest of the harness one wing at a



time. Once she is outdoors her reactions to this fascinating outdoor world are enough to confirm her happiness. This is the easiest harness I have used."

Parrot Life evaluation team rate this product 4.95 / 5.

WE strongly encourage every companion parrot owner to allow their featured friends the chance to experience the wind under their wings the responsible way!



CONSERVATION

By Ricardo Valentín-de la Rosa

The Puerto Rican Parrot at the Rio Abajo Aviary A brief history of a second propagation program



The Puerto Rican parrot *Amazona vittata* was a very common bird in mainland PR and nearby islands. In prehistoric times the parrot was so common that the native inhabitants hunted it for food. Posteriorly, with the establishment and spreading of agriculture, it was regarded as a crop pest and was sold as a pet. But during the last two hundred years the parrot population was affected by a massive loss of habitat, a huge increase of the human population of the island, some very strong hurricanes that caused widespread devastation and competition from recently arrived bird species. The result was a sharp reduction in the population of the PR parrot. Unfortunately by the middle of the sixties the decline had become catastrophic and researchers became concerned that the parrot was in critical

danger of extinction. A survey in 1971 reported that the remaining wild population only amounted to between 13 and 16 birds eking out a precarious existence in the depths of the sole remaining area of significant extension of virgin forest in the island. In the late sixties a program to save the species from extinction was started by the United States Fish and Wildlife Service in the Caribbean National Forest and an aviary was established on an old building vacated by the US Navy.

The story of the early years of the Puerto Rican program is narrated in the book *The Parrots of Luquillo*. There is also some information in the PR parrot section of Rosemary Low book *Endangered Parrots*, and in *Parrots of the World*. The Luquillo aviary had some early successes producing

parrots in captivity but in the long run it encountered problems to improve its productivity. Several accounts have been stated to explain the difficulties faced when trying to breed the species, among them, the exceedingly wet weather at the aviary location, inadequate and cramped facilities (the large diesel generator was at first a few feet from the breeding cages!) and a troublesome plethora of fungi and bacteria that at times infected the eggs, the chicks and the adults. It was decided that a new aviary should be built in a location more favorable for the breeding of the parrots. Moving some parrots to a place where their breeding might be more successful was not the only reason for a new aviary, another big concern was the possibility that a disease or natural catastrophe would wipe out the whole species if it was concentrated in a single place. The Karst area of Puerto Rico, specifically the Río Abajo Forest was chosen because it was the last stronghold of the parrots outside the Luquillo forest. Besides, it was expected that the climatic conditions (e.g. lower humidity) of the area would be more favorable for the development of both eggs and chicks. An aviary was built in the location of Camp Bradley, the old Peace Corps camp. The aviary was finished by 1990 and started operations with a population of Hispaniolan parrots (*Amazona ventralis*). The Rio Abajo aviary, unlike the Luquillo

aviary is administered by the Puerto Rican Department of Natural and Environmental Resources (DNER). One of the most enthusiastic advocates of the Rio Abajo Aviary was Dr. José Vivaldi. Unfortunately he died of cancer in the early nineties before the aviary received its first PR parrots, the aviary is a memorial to his efforts to save the species.

The first group of PR parrots to arrive at Rio Abajo was not exactly the easiest birds to breed. The group was made up of thirteen-old and young birds. In this group were several birds that had proven to be very difficult to breed in Luquillo, however they were valuable because they were genetically underrepresented in the captive flock. It was thought that a change of location would have a beneficial effect on their behavior. Some of the birds were contumacious feather pluckers, one bird had a reputation as a mate killer, a pair was extremely aggressive and an old male had severely deformed leg that kept him from walking normally. Although at first sight it would seem these birds were not very good the fact is that a number of them are still alive and healthy and some bred and reared chicks successfully. A second batch of PR parrots, twelve birds, which included some fertile pairs were received in the aviary in 1995.

The aviculturist in charge of the aviary at the time of the transfer of PR parrots from Luquillo was José Rodríguez-Vélez. His wife, Ann Smith, also worked in the aviary. They managed the aviary from its start in 1990 to 1999. The founder flock of parrots was a challenge to manage but the RA aviary had some particular advantages that helped when dealing with troublesome birds. One of the advantages of RA was its sheer size. At the time the aviary covered three



hectares (now four) of densely forested terrain. Rodríguez-Velez segregated the pairs in different breeding areas according to their tolerance of human presence. This arrangement has proven to be so successful that we have continued to use it to this day. By 1999 when Rodríguez-Velez left the aviary the PR parrot population had increased to from 25 to 54. In 1999 I started working at the aviary and took charge of the management of the flock when Rodríguez-Velez and Smith left.

When I started managing the RA aviary I enjoyed some distinct advantages over other project leaders or aviculturists that had joined the project before. My early years in the project were greatly helped because Rodríguez-Velez and Smith had written voluminously about the birds and every other aspect of aviary management. Their punctiliously recorded data is still frequently consulted and researchers hold it in the highest regard. The fact that we have a continuous set of data that harks all the way back to the very start of this project and that has been taken in a uniform manner gives us a

powerful tool to manage the flock. When I started it was clear that we needed to get a deeper understanding of what was needed to make these birds breed successfully. The central management problem was that the behavior of the founder breeding pairs was far from uniform and often confusing, making it hard to evaluate what went wrong or right with a particular pair. Our most prolific founder pair, for example, is so aggressive that they react with angry outrage to even the mildest intrusion by the staff and often behave in a particularly nasty manner toward each other when their anger is aroused. But in spite of all the nastiness these animals display toward each other, most breeding seasons practically every egg they produce is fertile. This is not a mean feat when we consider that in an average season only 45% of the eggs are fertile. On the other hand our second most prolific founder pair is composed of even tempered relatively placid birds that get along well, even in tiny cages, and have never been seen to mistreat each other. And then we there was the case of the pair that was composed of an almost completely



danger of dying or if it was rejected by its parents. The most important reasons for avoiding hand-raising birds was that we had a great need for the largest number possible of parent raised birds available for the future releases into the wild and for breeding.

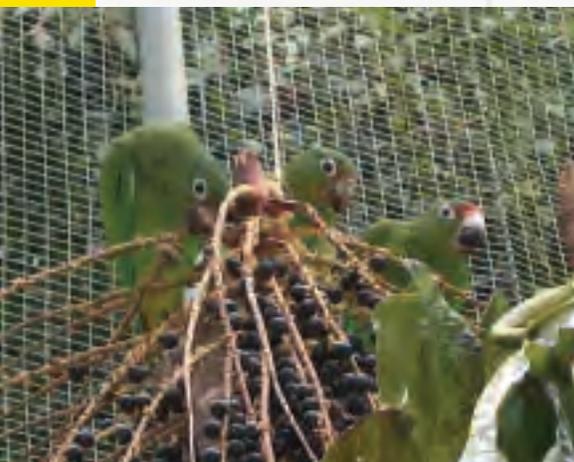
Starting in the year 2000 we have been monitoring carefully the social activity in the adult flock in the main flight cage. This was done to allow us to learn what was meaningful to the birds when forming pairs and to have some perspective in which to evaluate the performance of the pairs once they were set up for breeding. The most difficult task, that of watching the pairing behavior of the birds, was given to Brian Ramos-Guivas. Although all the other employees spend time watching the birds, Brian is the one that had the duty of identifying pairs, that is, making sure that two birds that spent time together were a true pair in the reproductive sense and not just a case of birds that were on friendly terms or that simply tolerated each other proximity. Every week, during the breeding season, the whole staff meets to discuss the parrot behavioral issues. Even the handyman, Tomas Medina, is expected to contribute to the discussion as he has been in the project since its very beginning and knows quite a bit about the parrots. Usually in these meetings the staff pools its observations and decides which additional observations or actions need to be taken. Brian was joined by Jong-Piel Banchs in making observing the parrots in 2002 and in 2004 by Piel-Jonas Banch and Ana Estrella. A person may ask, quite reasonably; why it is so important to constantly be on the watch for what the parrots are doing? The reason is that it is of paramount importance for us to be able to have the proper context in which to place not only parrot behavior but the effect of our management

featherless female, (an obdurate feather-plucker), and a mostly featherless male. This particular pair had an outstandingly frightful appearance and yet they managed to produce more fertile eggs than many other seemingly perfect looking pairs. The female even incubated her eggs successfully, although she was not trusted with chicks due to the concern that she would severely damage their developing feathers. This pair showed a seasonal pattern of aggression. They were very aggressive, sometimes with each other, during the breeding season and relatively mild tempered out of the breeding season. When I started in this program the behavior of three of our four fertile pairs was at times contradictory and didn't point in any clear direction as to what circumstances made a good, fertile, breeding pair. So it was made a priority to observe the parrots interacting in the flight cage to see how the

social interplay of the parrot flock affected pair formation. Then we evaluated those naturally made pairs as to how successful they were in completing a breeding cycle.

One of the first measures that were taken was to avoid hand raising birds as much as possible. Rodriguez-Velez and Smith proposed that Puerto Rican parrot parents- raised birds were the best breeders and hand raised were the worst. Pairs that had a mixture of one hand raised and one parent raised bird seemed to have trouble at first but improved through experience. Pairs that were composed of two hand-raised birds were problematic breeders and some never managed to complete the breeding cycle successfully. Based on their insight, a rule was set up that we would only hand-raise birds as a measure of last resort. It was deemed best if we would hand raise a chick only if it was in imminent

strategies. One of the things few people realize is that over the years the project has received a staggering number of suggestions to improve the production of our flock. We have tried many but unfortunately, very, very few have had a significant, measurable effect. Our way of thinking at Rio Abajo is that the parrots are the ultimate judges of the suitability of any particular strategy. However the truth is that judging whether a particular suggestion is working is not necessarily easy. Every year we have to deal with a wealth of confounding factors and random events that have to be taken into account when evaluating the data. Few breeders have to factor in their analysis, as we have done at times, the effect of low helicopter over flights, equipment burn-out and electrical power loss as important factors in a breeding season.



Over the years USFWS has pursued several research lines to try to improve the productivity of the aviaries. During the last six years the emphasis has been in research into disease, nutrition and genetics to try to improve the fertility rate of eggs of the captive parrots (the fertility rate of the eggs of the wild birds is very close to 100%). Dr. Rivera has worked with the veterinary aspects of the management of the flocks,

Jafet Velez-Valentin has been observing the effect of the diet in the Luquillo aviary birds, and Dr. Sue Haig has been coordinating the genetics research. At Rio Abajo we view our work as complementary to all these efforts. After all the finest food, the best veterinary care and a most favorable genetic combination all depend on the fact that a given pair will want to breed rather than to ignore or kill each other.

The work of selecting naturally made pairs in the flight cage, coupled with several strategies to help the growing parrots develop in as normal way as possible in captivity took a few years to produce yield results but it has been quite successful at increasing the number of our fertile pairs. In 1999 we had four fertile pairs in 2006 we had eighteen, a more that fourfold increase. Fledgling production went from 13 in 1999 to 29 in 2006. The total parrot population of the aviary reached 131 PR parrots in 2006. We have to add that up to the year 2000 we had sent 19 birds to Luquillo for the release into the wild. In an unprecedented development 100% of the pairs selected in 2005 (five) proved fertile in 2006. The fact that in 2006 our production numbers increased significantly didn't happen by chance. You see PR parrots take four to five years to reach maturity, this means that parrots that were born in 2000, and raised using our management techniques are entering the breeding population and starting to produce chicks. I don't want to end this article without emphasizing that our birds are not just passive bystanders to our actions, they are actively contributing to our understanding of the species. This feedback is critical. We have deep respect for these emotional, intelligent and insightful creatures and, at the risk of the label "touch-feely", in our project their opinion matter to us. Each pair is

studied and we try to accommodate to their particular demands and to eliminate things they don't like. It is this



open minded "dialog" with the parrots that we think we have achieved our level of success.

We have great hopes for the future as the PR parrot project moves into the phase in which it will be releasing birds into the Karst area of Puerto Rico. A second wild population will greatly improve the chances for the full recuperation of this species. After all a species recovery only takes place in the wild.

I would like to thank Dr. Miguel García-Bermudez and Brian Ramos-Guivas for their comments and suggestions about his article.

Update on the release program of the PR parrot.

Most of the parrots are doing ok and have adapted reasonably well to living in the wild. We have lost a few parrots due to predation by red tail hawk and broadwing hawk. The largest group, composed of 11 parrots, has kept together as a flock through thin and thick and has survived attacks by red tail hawks without losses. At the moment it appears that all parrots lost to predation died because they had abandoned the protection of the flock. According to Ivan Llerandi (leader of the release program) some parrots seem to be engaging in courtship behavior and some pairs have been exploring the areas where nests have been set up. We are hopeful that those birds that have been looking at nests will try to nest because the next step in the program is a self regenerating population.



Why perform a **NECROPSY?** A question to dissect...

A necropsy is a generally complete study of a body after death. It is one of the oldest medical procedure, but nonetheless still unknown to most people.

The loss of our loving little feathered treasure or the unexplained loss of several birds of a breeding stock representing a lifetime's achievement can be an emotionally painful experience. When the time comes to suggest a necropsy, the situation is even more unpleasant. It is of course difficult to accept that our precious animal will undergo that type of procedure, especially if the importance of a necropsy is not always obvious. But is it really necessary to accept a necropsy when it is suggested?

As unpleasant as this can be, a necropsy can provide us with the last crucial piece of a complex puzzle. Furthermore it can more or less provide us with an essential diagnostic tool for the future health and survival of an entire stock.

The objective of this article is to become familiar with this unique

medical discipline, to discover the various aspects of a necropsy and its numerous benefits. A necropsy is an important clinical diagnostic tool, very often this procedure will help determine the cause of death or the cause of a multifaceted disease.

Table #1 Potential indications of a necropsy

- 1) Search for a disease having an impact on other birds
- 2) Diseases transmissible to human beings
- 3) Improve the quality of care
- 4) Advancement of science

Potential Indications of a Necropsy (Table # 1)

Some diseases can be prevented once they are correctly identified. Among other things, we can identify infections, nutritional disorders, hereditary diseases and exposures to a toxic agent or to a physically harmful circumstance. These diseases are not always evident before death. A necropsy is the last

opportunity to shed some light on them and can prevent other deaths with the help of an appropriate treatment or adequate management.

Animal infections that can be transmitted to human beings (zoonoses) can be very dangerous. Such a discovery will have important implications for the people exposed to the infected animal. It will be suggested to them to consult a doctor. For several infectious diseases, an existing curative treatment can be established. In some cases, government authorities will have to be notified about the infection.

A necropsy is an essential tool in evaluating the quality of care. The post-mortem examination allows the veterinarian to verify if his diagnostic hypothesis and his treatment plan were appropriate. Therefore, the necropsy results will provide an opportunity to improve the quality of care.

Finally, several diseases were and will be discovered for the first time during a necropsy. In fact, the new lesions observed at the organ level

or on the body in general can eventually gather important clues and will allow us to learn more about a not well-documented disease or to identify a totally new one. These discoveries result in an unquestionable progress for science and medicine.

Table #2 Pathological entities

- 1) Infections
- 2) Tumors
- 3) Malnutrition/metabolic diseases
- 4) Congenital/hereditary diseases
- 5) Intoxications
- 6) Traumas
- 7) Immune disorders

Pathological Entities Identifiable at the Time of Necropsy

(Table # 2)

With special techniques used in the sampling of tissues or fluids, it is possible to identify an infectious disease which can be bacterial, viral, fungal or parasitic. Frequently the infectious agent will be visible, if not, there will be a tissue reaction in response to the infectious process. It is often possible to make an accurate diagnosis.

Several diseases can cause one or many lumps (tumors). In many

cases only a microscopic examination will identify the underlying disease. More particularly, cancers require an analysis at the cellular level.

Nutritional disorders caused by vitamins, minerals and amino acid unbalances can cause different diseases. The negative impact of these disorders will often be noticeable in the bird's various systems (e.g.: skin/feathers, digestive, respiratory, reproductive, urinary, musculoskeletal, neurological and immune).

Congenital or hereditary diseases are also part of pathological entities that are identifiable during the necropsy. The disorder affecting iron regulation (haemochromatosis), feather cysts and the baldness seen in canaries are examples of diseases with a genetic component.

Some intoxications as well as physical injuries caused by harmful agents or by the environment can also be revealed by a necropsy. Finally, the bird's immune system is identified in blood and in various organs producing/lodging white blood cells (e.g.: bursa of Fabricius, thymus, spleen, bone marrow and various lymphoid nodes of the digestive system). Viruses, bacteria, protozoa, toxins, nutritional disorders, cancers and degenerative diseases are some of several causes that can

affect this system. Auto-immune diseases are rather rare and not well-documented.

From the Dissection to the Microscope

Ideally, a necropsy should be performed as quickly as possible after death and the body should be refrigerated if the necropsy has to be delayed (between 72 and 96 hours). Otherwise a tissue degeneration (autolysis) takes place and complicates the analysis. In a situation where pathological examinations will not be possible before 96 hours, freezing becomes the only available option. This is certainly not the best solution because some tests may be compromised.

Before proceeding with a necropsy some information must be provided to the veterinarian or pathologist. These first details are part of important clues which can lead to a final diagnosis.

- 1) Species, age, weight, sex identification (ring, microchip)
- 2) History
- 3) Arrival of one or more new birds
- 4) Medical history/lab. results/treatments
- 5) Description of the environment
- 6) Diet

A necropsy evaluates the body using three aspects: macroscopy, microscopy and ancillary (additional) tests.

● ● ● *The objective of this article is to become familiar with this unique medical discipline, to discover the various aspects of a necropsy and its numerous benefits. A necropsy is an important clinical diagnostic tool, very often this procedure will help determine the cause of death or the cause of a multifaceted disease.*

Image 1
blocks of
paraffin with
embedded
tissues

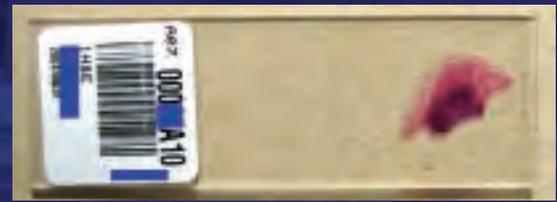


Image 2
histology slide (7,5cm x 2,5 cm) with tissue

Macroscopy (gross exam)

With the macroscopic examination it is possible to evaluate the external aspect of the animal and all its organs (feathers, ears, eyes, mouth, upper respiratory system, skeleton, body condition, etc.) with the naked eye and by touch. It is during the macroscopy that all the samples are taken for potential tests. It is always better to keep samples of each organ in formaldehyde should additional tests be necessary later on. For monetary reasons, it is sometimes impossible to perform a complete necropsy on the animal. We then have to prioritize the organs that were most likely affected according to clinical signs or organs which are visibly abnormal. A sudden death would suggest to take samples of the heart, brain, lungs and endocrine glands. In the case of a chronic disease, samples of the gastrointestinal tract and of the liver would be essential. Finally the examination of a young bird requires to initially examine the immune system such as the bursa of Fabricius. The sampled organs are stabilized (fixed) in a formaldehyde solution. Once fixed they can be preserved for a long time.

Pictures taken at different stages of the necropsy can sometimes

be very useful for a thorough investigation. In addition, X-rays can also be part of the examination in the search for fractures, tumors, heavy metals or other anomalies.

The appearance of each tissue is examined in order to determine if there is a pathological condition or not. Always following a systematical order (e.g.: preestablished form), each organ is described by its color, shape, consistency, size, smell and presence of focal lesion(s). All of these observations can be used to describe a pathological entity in the affected organ (Table # 3).

Table #3 Example of a macroscopic description: hepatic lipidosis (fatty liver)

- Organ - Liver
- Color - pale, yellow
- Shape - rounded
- Consistency - soft, friable
- Size - enlarged
- Smell - nothing to point out
- No focal lesions

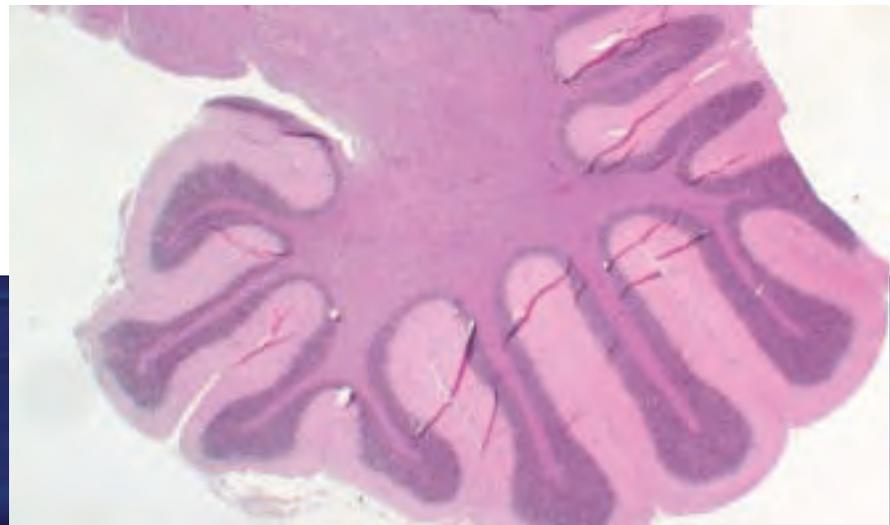
Microscopy

The microscopy is the study of tissues at the cellular level. To observe the cells under the microscope many steps are necessary. In order to easily cut the tissue the water content must be removed from the cells and replaced by paraffin. Once the tissue is embedded in paraffin (image 1), it is sliced very thinly (5 microns) with an instrument called a microtome. These thin slices are then placed on a slide and stained (image 2, 3, 4). Cells are examined at different magnifications and a detailed description is made based on the histological findings (e.g.: inflammation, tumor, parasites, inclusion bodies etc.) (Table # 4).

Table #4 Example of a microscopic description: splenic polyomavirus infection

- Multifocal necrosis of the spleen tissue
- Karyomegaly
- Numerous basophilic intranuclear inclusions in the reticular cells of the spleen

Image 3
normal cerebellum
(original magnification 12,5X)



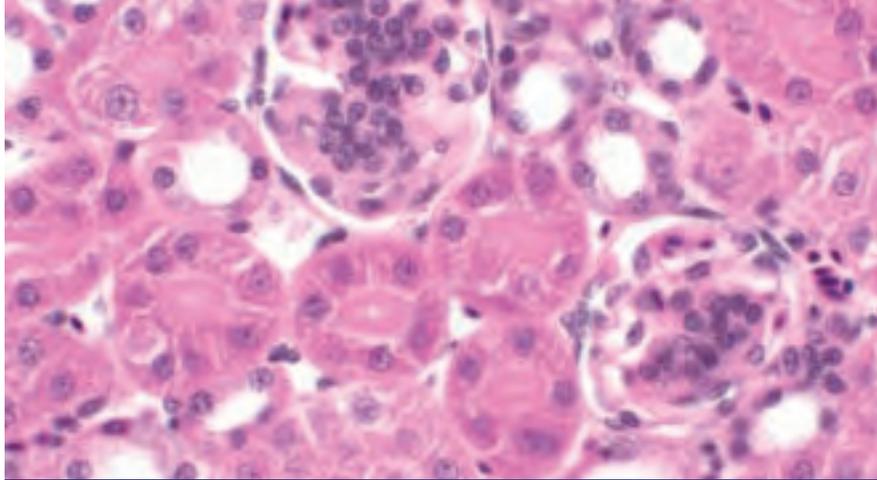


Image 4 normal kidney (original magnification 400X)

Ancillary Tests

The sampling of tissues, feathers or fluids for bacteriological, virological, fungal, parasitological, toxicological, special colorations, PCR tests and cytological tests are also part of the necropsy. Each test is important since it serves to complement other tests. In several cases, these tests will help to confirm the pathological diagnosis.

CONCLUSION

A necropsy report is based on observations done with the naked eye, under a microscope or with several types of lab tests. Of course everything that surrounds the animal is also essential. That is why all the information collected regarding the bird's death or disease is vital. The necropsy allows us to discover much information that would not have been disclosed otherwise. This information can have a major impact on other birds. Even if a necropsy doesn't always give a specific diagnosis, it can be the closing chapter to a probably painful event and may possibly provide a sense of satisfaction and relief. This wise choice can give us the opportunity to study a disease and then use this new knowledge to our advantage.

Biography Dr. Diane Noël, D.V.M.,I.P.S.A.V.

Dr. Noël graduated in veterinary medicine at the University of Montreal in 1992. She then completed an internship in small animal medicine and surgery followed by a residency in comparative pathology at the University of Miami and clinical pathology at the University of Montreal.

It is during her residency in Miami that Dr. Noël developed a growing interest in avian pathology and in the world of birds. Despite the animal diversity studied during her formal training, Dr. Noël was particularly attracted by avian hematology and the various diagnostic techniques used in avian medicine.

Presently Dr. Noël wishes to increase her knowledge of avian medicine. She also works as a veterinary consultant for Rolf C. Hagen Inc.



Photo: Fundación Jocotoco/Loro Parque Fundación



Des Res for Endangered Parakeets

Judging by the number of parakeets inspecting it, this nest-box is a desirable residence for the El Oro Parakeet (*Pyrrhura orcesi*). **This endangered species is native to a small area of Ecuador, where removal of the forest threatens its existence.** Probably due to lack of natural nest sites, the parakeets have taken to the nest-boxes with alacrity. These have been installed by the Jocotoco Foundation of Ecuador, supported the Loro Parque Foundation of Tenerife, Spain. By boosting the population, this part of the project helps to buy time while the long-term issues are tackled.

Want to help?

Please contact:
environment@loroparque-fundacion.org.

David Waugh, Loro Parque Fundación

Bird Care Guidelines:

- Pet bird care should be a shared family responsibility.
- A bird cage should be spacious, secure and cleaned frequently.
- Always change food and water daily.
- Keep bird cage in a safe location, away from dangers such as direct sunlight, kitchen fumes, cold temperature and predators.
- Secure your home from any potential dangers before letting your bird fly around freely; always monitor its flight. (eg. Mirrors, open windows, fans)
- Never chain down a bird - clipping flight feathers is a safe and humane way to prevent pet birds from escaping or injury.
- Know your pet bird - any change in normal behavior could be a sign of illness. Call a reputable veterinarian for a consultation.
- If your bird's beak, wings, or nails require trimming, let a veterinarian or avian expert show you how to do it first.
- Most birds, especially very young ones, need attention; take the time to play with them.
- Plain seed mixes can lead to obesity as well as deficiencies in calcium and vitamins. Try to feed your bird formulated diets or at least provide nutritional seed supplements.
- Birds should visit the vet at least once a year.

Essential key ingredients for the best food for your bird:

Tropimix Food provides your bird with a wide variety of ingredients such as seeds, fruits, vegetable and added Tropicana.

Tropicana: Scientifically formulated as completely balanced extruded, containing eight grains and nuts for maximum palatability and biological value. Flavorful maintenance food for all cockatiel, lovebirds, rosella and parrotlets.

Fruits: Papaya, pineapple, coconut

Seed: Brown rice, hulled millet, milo, wheat, oat groats, cracked corn, buckwheat groats, sunflower kernel, flaxseed.

Vegetables: Carrots

Legumes: Soybean, green peas, red lentils, peanut kernel.



TROPICAN Granulated Diets:

At the Hagen Avicultural Research Institute (HARI), years dedicated to finding a better, nutritionally complete bird diet produced a breakthrough bird food called Tropicana. Tropicana is so nutritionally advanced that there's no need for dietary supplements. Long-term research at HARI shows that birds fed on a Tropicana diet maintain healthy weight levels and grow better plumage. Tropicana is the only formulated food line that most birds will need in their lifetime, from a newly hatched baby chick to a mature, breeding adult.

Only Tropicana contains eight grains and nuts, including corn, wheat, oats, soybeans, sunflower kernels, peanuts, rice and flaxseed. It contains a special blend of vitamins, minerals and other nutrients, as well as natural fruit flavoring.

Tropicana contains human-grade sunflower kernels and peanut meal - not cheaper meals, which are by-product of the vegetable oil industry. It contains no fish meal or any other animal protein source.



Video Filming a Therapeutic Weapon



I spy with
my little eye
something that is.....

A photo can speak a thousand words... but capturing your bird's personality on film can be extremely valuable for numerous reasons that might not be so obvious, yet can provide indispensable assistance. Parrot Life issues 1 and 3 featured "Your Parrots Pet Status File" and "My Parrot's Mind and Body Chart". Both of these can be easily answered with the help of video footage or camera monitoring device. What might seem to many as insignificant details such as when and how long your companion bird sleeps truly undisrupted, or on what perch it sleeps.... is this the one causing the bumble foot (pododermatitis) on his left foot? Is it jerking every time the heating furnace starts up? Are your vindictive neighbors right about the intensity of your parrot's screams? Some of these preoccupations, and much more could be highlighted with the viewing of such footage.

The following are a few examples to justify the importance of filming your beloved feathered companions.

- **Collecting memories.** Many of us raise our cherished avian companions as we would a child. Digital video equipment is now more affordable than ever before and the enjoyment of viewing these memories in the future is priceless.
- **Data banking both favorable and undesirable behavior** can be used as a tool to understand what prompt an undesirable behavior to develop. Archiving footage of your birds behavior, posture, stance, reactions etc. can be extremely useful to shed some light on what possibly triggered an undesirable or misunderstood behavior.

Note: I would recommend that you collect footage of your bird when they are aware they are being filmed as well when the camera is hidden. Despite the trust they might have in their caretakers, they might hide their symptoms nonetheless when they are not feeling well. Captive bred birds have conserved their natural instinct as prey animals to hide their debilitated state when they are not

feeling well. In the wild they must do this to

prevent the flock from noticing they are weak and could attract a predator!

- Video filming enables you to **highlight concerning health issues** thus allowing you to be proactive and consult an avian veterinarian before the condition deteriorates.

- **It can be a vital aid as an additional diagnostic tool for both the veterinarian and behavior modification specialist.** For a professional and experienced avian specialist, simply viewing the environment of the bird in your home could reveal potential health hazards. A perfect example is the presence of a stained class lamp that your bird could have potentially chewed on thus the source of the lead poisoning intoxication suspected. Should your day cage be positioned near your kitchen, are you aware of the toxicity such as Teflon cooking ware can emit! The veterinarian technician can perhaps take a few minutes while waiting for your appointment to view the footage and highlight some common concerns.

- It can be a great tool to assist while **weaning and converting your bird to healthier diet** such as a formulated extruded granule.

- **Placing a hidden camera, or discretely filming to monitor their psychological health can reveal concerning eating habits, boredom, screaming etc. It can also unveil preoccupying reactions to your bird's environment** such as a fearful reactions to noises, other companion animals in your home or the neighbors barking dog, another cage mate's aggressive nature, a feral cat sitting outside the window in view of your companions cage all day while you are away at work! Perhaps the cause of the numerous stress bars appearing on your bird's feathers?

- The viewing of this footage can also give **additional insight as to the nature of a feather damaging behavior.** Is the bird actually plucking, chewing, pulling frantically, or over preening the feathers? Is there another feathered companion damaging its' feathers? Are the foraging toys and occupational therapy materials you have provided intriguing the bird to explore them?

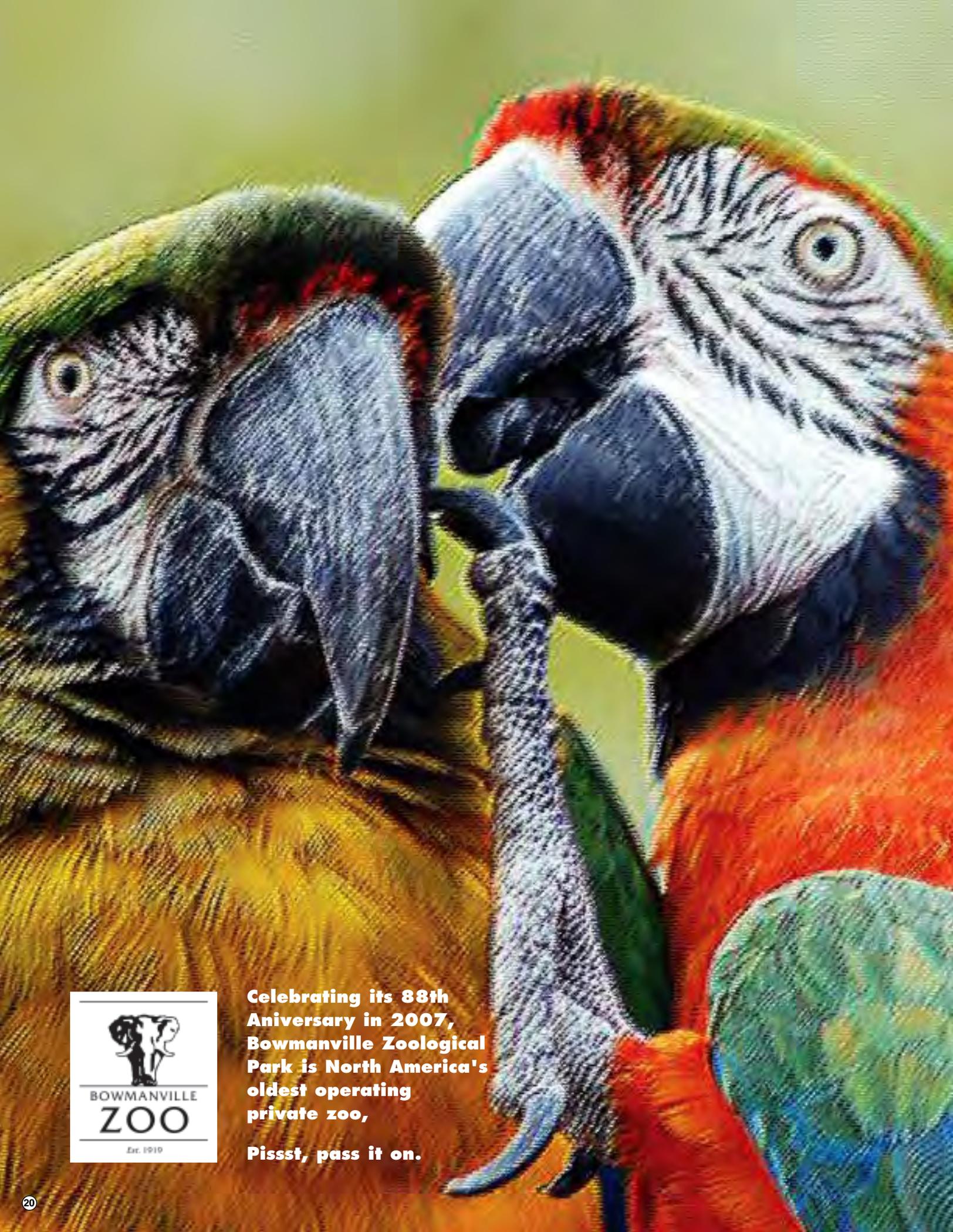
- **Nest Camera** - article featured in Parrot Life vol.2. can help identify breeding behavior and responsible or neglectful or inexperienced parenting behavior.

- **Video footage can facilitate the adoption process and increase the chances that your bird be relocated within a new family successfully and for a longer period.**

The adoptive flock members would have a better understanding and honest portrait of both the desirable and undesirable behavior of the bird prior to committing to its care. Understanding the bird's history, as basic as the daily routine, reactions and interactions to family members, what occupational activity stimulated the bird's independence etc. A compilation of video footage can accompany the bird throughout its life.

- Are your neighbors threatening you that your bird's screaming shrieks are unbearable whilst you are away at work all day! Perhaps, **capturing it's behavior on film would help you acknowledge the complaint as a valid claim, or prove to be unfounded.** If it proves to be justified, consider relocating your bird's daytime living quarters or providing additional occupational therapy options that could alleviate the situation for both your bird and desperate neighbors.

Josee Bermingham



**Celebrating its 88th
Anniversary in 2007,
Bowmanville Zoological
Park is North America's
oldest operating
private zoo,**

Pisst, pass it on.



CANADIAN AVIARY

BOWMANVILLE

www.bowmanvillezoo.com

What's all the whispering about?

By: Michael Hackenberger and Wendy Korver

Nestled in 45 picturesque acres, Bowmanville Zoo has included psittacines, particularly macaws, in its animal collection since its inception in 1919. Over the last 20 years, Bowmanville Zoo has established itself as one of the North American largest suppliers of trained animals to the television, film and live entertainment industries. Moreover within the zoo itself, during the summer season, there are three shows daily at 12, 2 and 4 p.m. that provide a message of conservational responsibility, couched in the entertainment value found within the wide variety of species (some critically endangered) that are presented showcasing their behaviors.

While working predominantly with mammalian species, Bowmanville Zoo has provided trained avians for a number of entertainment productions. From Peter Benchley's Amazon, to working with Dustin Hoffman in his upcoming movie

"Mr. Magorium's Wonder Emporium" to school outreach programs, Bowmanville Zoo's birds are winged ambassadors of the amazing world that is avian.

To successfully work with birds in such disparate environments, an intensive regime of training and desensitization is incorporated into the development of each bird.

Training regimes in parrots have been well covered in the literature and on the internet. Macaws entering the training program at Bowmanville Zoo are often unwanted pets, and as a result, they are unfortunately usually accompanied by a variety of inappropriate behaviors. Through application of the basic operant conditioning principals of positive reinforcement, inappropriate behaviors are extinguished and more appropriate behaviors are acquired.

The greatest challenge that faces all captive animal care-takers, centers on the management of obesity and boredom.

As an extremely energetic and intelligent species, macaws demand our full commitment to ensure that we are meeting their biological requirements. Training





captive macaws using operant conditioning provides the most efficacious pathway to the management of these two captive concerns.

The most common behavior anomaly observed within donated pet birds is

feather picking. Subsequent to the introduction of operant conditioning behavioral management, feather picking usually decreases to manageable levels.

Frequently, one of the primary motivators for feather picking within the bird, is the inability of their human caretaker to meet the needs of a pair bond.

Birds expect their human “mate” to be present at all times, and unfortunately most humans do not have a schedule that allows this. The bird can then develop what is defined as a “pathological bond” with their human, (e.g.: the bird is manifesting stress behaviors such as feather picking to try to deal with the situation they are in). The problem then becomes one of how to still give healthy bonding time between the bird and their human, and yet not allow for the development of the “pathological bond”. Training through operant conditioning is the answer- it is fun, dynamic and most of all, mentally and physically healthy for your bird.

B.F. Skinner established the techniques used for training with operant conditioning in the early part of the 20th century. The IQ Zoo in Little Rock Arkansas, with Marian Breland Bailey and Keller Breland, pioneered the techniques of applying Skinnerian operant conditioning principles to the real life training of psittacines.

The remarkable aspect of operant conditioning is its universal applicability across species. From elephants to ants, and macaws to humming birds, while the specific approach may vary due to biological realities, the underlying premise of an operant conditioning paradigm remains consistent across species.

Operant conditioning, as elucidated by Marion Breland Bailey and Keller Breland, can be summed up by stimulus plus response equals reinforcer. As it would apply to the training of a macaw to touch their beak to the end of a stick, the stick would be presented to the bird (stimulus), the macaw would in all probability touch the stick with their beak (response). By then rewarding the bird with a small, strongly attractive food item (reinforcer), the likelihood of the macaw touching the stick in the future when the stick is offered, would be increased. The term unconditioned reinforcer refers to any stimulus to which the bird will respond in a prescribed manner, without any learning (e.g.: a bird will eat when offered a tasty treat). A conditioned reinforcer is a stimulus which the animal has learned an association with an unconditioned reinforcer (e.g.: the sound of a can-opener

tells a house cat that food is on the way). **While these examples illustrate the operant conditioning model at its most primitive, it also indicates the universality of this framework, in applying across species, across classes, and across taxons.**

For training to be successful, the chosen reinforcer must be applied within a half-second of the behavior you wish to affect. Accepting this reality of behavioral modification demands that a reliable and speedy method be used for the reinforcement of the macaw. Direct presentation of food is not sufficiently controllable to ensure its presentation within the half-second window of opportunity. Recognizing the limitation of the use of unconditioned primary reinforcers (a.k.a. a small tasty treat) to work within the half-second window of opportunity, a conditioned secondary reinforcer was developed. The classic example of this model is the association of food with an auditory stimulus such as a clicker. The use of a clicker allows for laser beam precision in the reinforcement of desired behaviors. The clicker tells the bird very precisely when they are doing a good job. It improves efficiencies at all levels, and allows for some of the cleanest and clearest communication pathways between a trainer and their bird.

Clicker Training - The Method

The first step in clicker training is to offer your bird a suitable unconditioned primary reinforcer (a.k.a. a small tasty treat). At the point that the bird accepts the treat, you present the conditioned secondary reinforcer (a.k.a. you click the clicker). Once the association between the unconditioned food reinforcer (tasty treat) and the conditioned secondary auditory

stimulus (clicker) is made, your ability to influence your bird's behavior is established. Now you are in a position to train your bird to, for example, lift a leg up through an approximate 130 degree arc in a “high five” maneuver (or actually “high four” maneuver in the macaw world). The bird is placed on a perch in front of you, and holding your clicker in one hand and your tasty treat in the other hand, you wait until the bird shifts their weight and slightly lifts one of their legs. You immediately click (within a half-second), and then offer your tasty treat. You repeat this sequence a number of times, ensuring the bird is lifting the same foot that you initially reinforced. You will then start using a technique called successive approximation. When the bird is lifting the foot regularly for you, you can add in a command like “high five” (or “four”), and then only reinforce the bird when they lift their leg higher. You will eventually reach a point where the bird lifts

the leg up high enough for you to place your finger on the bottom of the foot, and the “high five/four” behavior is established. There are numerous websites that delineate avian clicker training and give recipes for various behaviors and how to train them. We urge the captive psittacine community to embrace this behavioral technology, not only for the benefits it brings to your bird, but the wonder and magic that it adds to the relationship of human and psittacine partner.

Bowmanville Zoo hopes that the information contained above encourages you to explore and discover the powerful opportunities provided by operant conditioning in our never-ending quest to optimize the captive environment for the birds we love. Please come visit us this summer! ■

Michael Hackenberger and Wendy Korver



The Hagen Avicultural Research Institute



- **Quality control**
- **Avicultural Advancement Research**
- **Education**
- **Conservation Support**
- **Product design**

For the past decade HARI has been focusing on 10 core species for multi-generation breeding to contribute to the captive bred genetic pool in Canada for the future of our feathered companions. Individuals with favourable character traits for companionship and optimum health were selected from various Canadian breeders in combination with chicks raised at HARI to form this second generation breeding program.

Modifications to our indoor facility have allowed us to construct new flights for these juveniles, which are colony flocked for up to 6 years before they reach reproductive maturity.

These individuals have been fed exclusively on a formulated diet since hatchlings, for ongoing quality control of our Tropicana product line.

We are continuously striving to design and integrate environmental enrichment stimuli for our colony in our indoor and outdoor breeding facility

- Natural cavity nest fronts using java wood cavity fronts (supplied by Richard King, King Cages supplies) and first cut wood pieces from our forest appear to have contributed to our recent breeding successes. These have provided occupational therapy and stimulated curiosity for our fledglings and maturing juveniles.
- A new artificial rain system has recently replaced the old worn down copper sprinkler system. Perforated garden hoses attached to suspended plastic poles proved to be an efficient and inexpensive alternative to the previous system. The hoses were strategically positioned to prevent gravity feeders from getting wet! The rain is activated each morning during the onset of the simulated breeding season. Bathing and subsequent preening contribute to occupational therapy, necessary for our breeding pairs, retired and juvenile individuals.



Interior Amazon breeding room

10 core species for multi-generation breeding



Orange Winged Amazon



Double Yellow Headed Amazon



Yellow Fronted Amazon



Blue Fronted Amazon



Green Winged Macaw



Black Headed Caique



Quaker



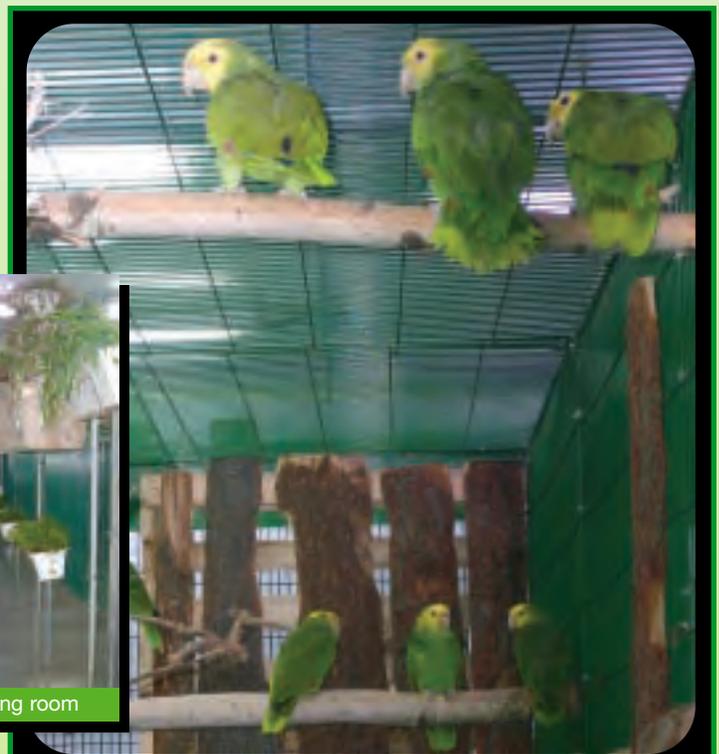
Blue and Gold Macaw



Senegal Parrots



Goffin Cockatoo





Photos and text by Josee Bermingham, AHT

THERAPEUTIC USES OF CLAY

To continue the Avian First aid chronicles, therapeutic uses of clay for the treatment of external wounds in conjunction with hydrotherapy can yield significant healing results.



Therapeutic green clay such as this ready to use paste should be part of every avian first aid kit .approx \$8.00 CAN. at your natural health food specialty store or local drugstore.

This article is not meant as a recital of the undeniable therapeutic powers of clay, its extensive applications as an alternative and complementary treatment for numerous health conditions and virtues as a nutritional supplement and detoxifying agent, sought out by numerous parrot species in the wild. Numerous publications and weblinks such as the ones listed below have thoroughly redeemed it's role, scientifically

unveiling it's mythical powers as an essential and indispensable natural remedy.

The use of green Clay applied in poultices and compresses, provides numerous benefits. It can heal wounds, bumble foot sores, wing tips injured by night frights, burns, cloacal papillomas, mouth sores & chronic skin irritations for avian species. Wound management has evolved in avian care over the past years. The therapeutic value and healing success of wounds managed with bandage dressing changed weekly, harsh and painful removal of dead skin surrounding a wound with scrubbing or irritating agents etc. should be questioned when alternative therapies could be most beneficial to your pet.



Therapeutic clay aids in the rebuilding of healthy tissues and cells. Besides it's colloidal properties it acts as a cleansing

agent eliminating all noxious substances. The same sedating, relaxing, absorbing and healing action is seen in treatment of the inflammation



per 250 ml of spring water.

whereby powdered green clay or white clay (kaolin) is added to the drinking water, following the same recommendations as for human consumption 2 tbsp

The application of the clay poultice onto the wound can often go without dressing when there is no picking or mutilation from the bird . This allows frequent hydrotherapy sessions and application of new poultices. This noninvasive treatment limits stress onto the bird as the clay can be applied quickly, without prolonged restraint. For numerous companion birds, the application of clay following hydrotherapy can be easily achieved without restraint of any kind. The soothing nature of both the water therapy and the clay is quickly acknowledged by the birds appearance as a recognition of relief.

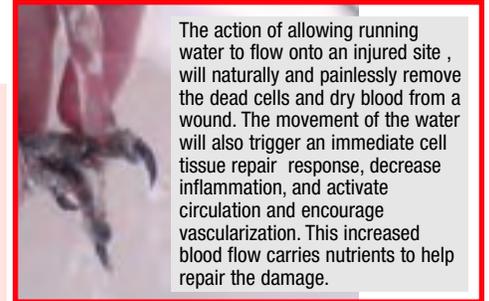
- Should your bird's curiosity lead it to nibble at the clay remember that Green clay is non toxic and quite therapeutic when ingested. If you suspect it might pick at the wound then take extra precaution and bandage the site.



This cockatoo suffered from an amputated toe due to a mate's aggression. 3 days later, following clay treatment, the scar is barely visible.

Water is so pure and simple, yet it can do the most amazing therapeutic action. Hydrotherapy:

The warmth of the flowing water helps to increase flexibility and mobility of muscles, tendons, ligaments that surround the joints as well as enhance circulation. It has been documented that hydrotherapy can reduce bacterial contamination of chronic ulcers , yet it is recommended to insure the use of a clean water supply to prevent a water borne infection.



The action of allowing running water to flow onto an injured site , will naturally and painlessly remove the dead cells and dry blood from a wound. The movement of the water will also trigger an immediate cell tissue repair response, decrease inflammation, and activate circulation and encourage vascularization. This increased blood flow carries nutrients to help repair the damage.

An additional step that can also be quite beneficial is to flush the wound with tincture of calendula (10 drops of mother tincture per 100ml of boiled water) following the hydrotherapy, prior to the application of the clay. Hydrotherapy can be extremely therapeutic and

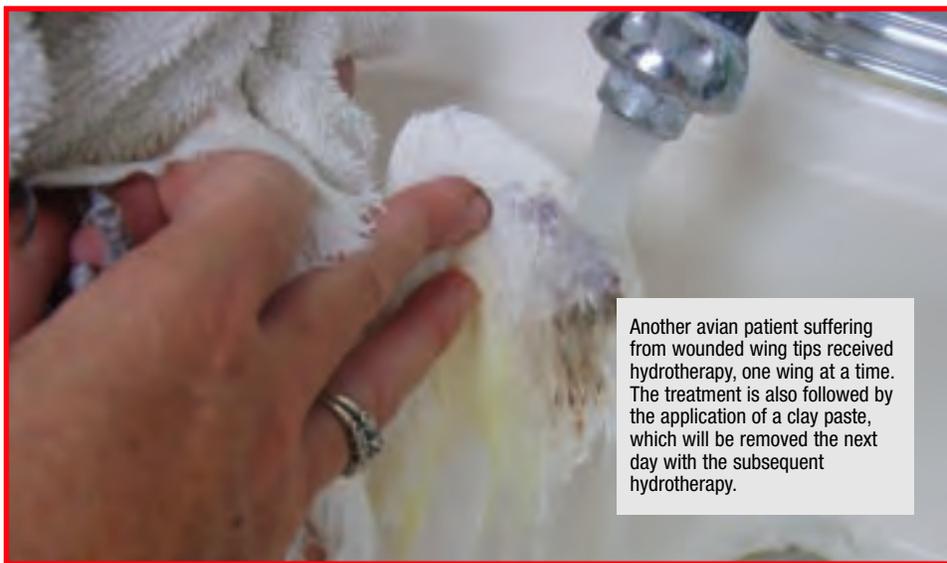


Hydrotherapy (min.3 minutes) in conjunction with the application of Green clay once daily had remarkable results on this Quaker parrot with chronic wounds on the shoulder area of the wings. The treatment required no bandages and the wounds healed miraculously within 1 week.

soothing to your bird, although once again the benefits of having trained your bird to being accustomed to being held in a towel will facilitate this treatment . Unless however the hydrotherapy can be applied to the wound while the bird is perched on a shower perch, which is by far less invasive, provided once again that your bird is comfortable with showering. ■

"Many species of mammals, birds, reptiles, and even insects, in all parts of the world, eat dirt. Known as geophagy (earth-eating) this habit has long been assumed to be an attempt to rectify mineral deficiencies in their diet. However new evidence suggests that this cannot always be the case. It has become apparent that the clay content is often the most important ingredient of selected soils. Clay is an effective binding agent as its chemical structure allows other chemicals to bond with it and so lose their reactivity. Clay is therefore an effective deactivator of toxins from diet or pathogens. Clay is the primary ingredient of

This conure hatchling was treated with hydrotherapy and green clay for the treatment of an infected umbilicus. Soft and warm running water flow gently cleansed the umbilicus that was soiled with dried feces, and a clay poultice was then applied for 1 hour, and subsequently removed with another session of hydrotherapy.



Another avian patient suffering from wounded wing tips received hydrotherapy, one wing at a time. The treatment is also followed by the application of a clay paste, which will be removed the next day with the subsequent hydrotherapy.

kaolin and kaopectate that we use when suffering from gastrointestinal malaise. The Healing Power of Hydro-Thermally Produced Living Clay.

Dextreit, Raymond; "Our Earth, Our Cure;" © 1974 by swan House Publishing Co.; ISBN 0-013010-07-3

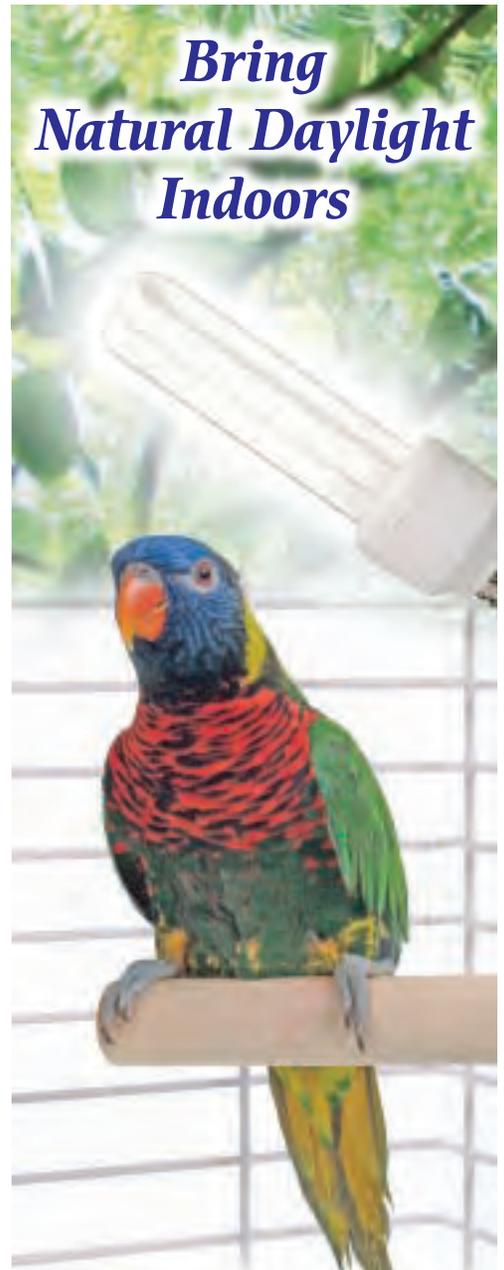
• The Clay Licks of Tambopata and Beyond: <http://www.duke.edu/~djb4/Clay%20licks%20of%20Tambopata%20for%20guidebook.PDF>
The whos, whats, and whys of geophagy - Donald Brightsmith, Ph.D. 2002
 This first aid avian chronicle is not intended

as a substitute for the advice and treatment of a licensed avian veterinarian. The author nor Parrot Life magazine assumes any responsibility.

Note: It is strongly recommended to consult with your avian veterinarian nonetheless and do explain the first aid treatment you have provided to the bird. A professional medical evaluation is recommended to determine the nature and severity of the wound, fractures or bacterial infections.

Josee Bermingham AHT

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Bad Bird:

PUNISHMENT AND THE PARROT

By Kristi Flemming



OLD WIVES TALES AND MISCONCEPTIONS

Punishment has been so ingrained in our culture, from the way we work with animals, to the way we raise our children and the way we ourselves were raised, that it is sometimes hard to fight the almost instinctual urge to apply it. Punishment can range from mild (the removal of attention, time outs) to more severe forms (screaming, hitting, cage rattling, feather pulling, squirting with water, etc...). This innate need to control the behavior of the beings in our environment through punishment has led to the development of a wide assortment of “proven” parrot training techniques. Many of these techniques, while designed to curb negative behavior, actually work against the basic psychology of learning and cognition, while doing nothing to teach the bird about the value of good behavior. Unfortunately, these methods usually have the opposite effect they were seeking to gain. As

the human-parrot bond is broken down through these trust destroying techniques, many negative behaviors become more pronounced. These “quick fixes” and “miracle cures” only end in damaging the special relationship we once had with these highly intuitive and intelligent creatures.

DOMINANCE THEORY - TEACHING AN OLD “ALPHA” DOG NEW TRICKS

Our tendency to punish first, and ask questions later comes from our genetic understanding of the “alpha”. Human society, from its most fundamental beginnings, has always contained authority figures. In fact, this alpha being is seen in almost every living example of our closest relatives - primates. You could say that we are “hard-wired” to dominate, or be dominated by, other beings. This deeply ingrained programming prevents us from seeing the alternatives that an

examination of other animal societies give us. When using dominance based training techniques with our birds, we need to ask ourselves "Does my bird understand dominance/submission?" Steve Martin, of Natural Encounters Inc. says on the subject of dominance in wild parrots, "I have talked to many parrot field researchers whose profession is studying parrots in the wild. None of these experts could recall ever seeing any form of hierarchy in the wild parrots...Also, none of the experts could recall ever seeing aggression for the sake of establishing dominance."

The simple fact is that parrots in the wild may fight to gain or protect resources, but they don't fight to establish a higher position in the flock. Why then, do we insist on using punishment and dominance whenever we encounter "opposition" in our parrots? Simply put, punishment is very rewarding to the punisher! Punishment can only be considered effective if it actually decreases the target behavior, but due to incorrect application, this rarely happens. Unfortunately, in rare cases, it does sometimes work. Owners will report that "when they shake their bird's cage, the bird stops screaming, (for a short time). While doing nothing to actually eliminate the behavior (the bird still screams frequently), owners are reinforced by the temporary positive results. This occasional reinforcement, when coupled with the punisher's inherent feelings of resentment and a subconscious desire for revenge, makes punishment a dangerously addictive training strategy.

TIME-OUTS, LADDERS, AND OTHER "OLD WIFE TALES"

A simple search into parrot training techniques reveals many time-honored traditions which, when examined closely, could be classified as punishment. Behavioral analysts define punishment as any consequence which, when coupled with a behavior, acts to decrease the likelihood that behavior will occur in the future. Let's take a closer look at some of the common recommendations one hears when searching for advice when dealing with a difficult behavior problem:

Time-outs:

We see time-outs take various forms with parrot training. Placing the bird back in the cage, turning off the lights, covering the cage, and relegating the bird to a far away room, are all examples of our attempts to apply Time-outs. These punishment methods assume that our bird's only motivating factor is spending time out of his/her cage with us. Parrots are complicated emotional beings, and it is impossible to assume anything about their emotional states or motivations. If the bird is feeling tired, hungry, or nervous, going into their cage may be just what they actually want. Maybe our bird really does want our attention, and is acting out to get it. In this instance, running over to pick up the bird, even briefly, to put them back in the cage, would teach them that acting out is a way of getting attention. Parrots also live very much "in the moment", and each behavior is either strengthened or weakened by the consequence immediately following it.

In order for time-outs to be effective training strategies, they must occur immediately after the behavior. The time it takes to: a) pick up the bird and return it to the cage/far away room or, b) Run over and turn the light off/ cover the cage, is enough time to eliminate the association between action and consequence. Secondly, the time out must effectively remove the motivating factor that prompted the negative behavior in the first place. As we have already examined, it is almost impossible to predict exactly what is motivating our bird in that exact moment before a behavior occurs. Thirdly, time-outs must be of short duration (30 seconds - a few minutes, maximum) in order to resonate emotionally with the bird. Any longer, and we risk the bird forgetting why they were shut away in the first place. Unfortunately, how often do we feel justified making the "punishment fit the crime", by putting our birds away for especially long times. Maybe their

screaming has been driving us nuts for an hour or more, and we want peace and quiet, or maybe this was the first bite to break skin, and it was especially painful for us. While, at the time we may believe our actions are perfectly valid given the circumstances, a close examination will reveal that our subconscious motivation is really revenge. The fourth and final key to making time-outs work is that the bird must be returned to its original place and given the opportunity to perform more appropriate behaviors to receive reinforcement. This final step is the most crucial, and the most likely to be eliminated or ignored when we are training our parrots. So much time is spent agonizing over what our birds shouldn't do, that we don't spend time training positive replacement behaviors. Teaching our bird to behave to gain rewards from us will provide a higher motivation to be good than they had to be bad.

Introducing Mild Aversive Stimuli:

We now get into a category of training techniques which involve the conscious decision to expose our birds to unpleasant and potentially trust-destroying stimuli. These techniques include: Squirting the bird in the face with a forceful stream of water, yelling or screaming at the bird, banging and shaking the cage, dropping the bird to the ground, and excessive "laddering", flapping, and the "wobble correction". All these depend on introducing an uncomfortable sensation that the bird will want to avoid in the future. Some of these techniques are still being touted as proper training methodology, but each one carries with it potentially unhealthy side-effects.

Squirting a bird in the face may teach a tropical bird to be terrified of bathing, leading to serious health problems. Yelling at your bird usually has the opposite effect, by giving the bird the classic drama reward (remember, parrots are loud, boisterous and outgoing creatures. When they see over-exaggerated responses from us, it is usually viewed as a wonderful game), and may actually cause an increase in the negative behavior. Dropping the bird to the ground is an aggressive act, and could result in the bird being afraid to step on the offered arm again, or even cause serious injury.

"Laddering", flapping, and the "wobble correction" are all examples of "good training techniques gone bad", when they are applied as discipline. Laddering is the act of having your bird step from one hand to the other, back and forth. Its purpose is to teach a reliable step-up response, and give the bird the opportunity to attain reinforcement for behaving well. This technique has also been put forth as a punishment for negative behavior, just as a drill sergeant may make a soldier do push-ups to make up for some transgression. It is said to "teach that bird that you are in charge"! In order for the association between action and punishment to be made by the bird, they have to be sitting on your arm at the time they misbehaved. It is no good to go running up to them to pick them up, as we have already concluded by examining drama rewards. If the bird is in an excitable mood when he is asked to ladder, he may be easily frustrated, and become more aggressive, not less. If we perform the action while annoyed or angry, our birds will read into this, and the anxiety/frustration the bird feels can be compounded.

"Flapping exercises" are extremely important for all avian companions. Obesity due to inactivity is a serious concern with many parrots, and encouraging exercise is critical to their health and well being. Many birds are reluctant to do these exercises, and need to be trained to accept them. Exercise must always be positively reinforced. To use it as a punishment removes any motivation on the part of the parrot to perform this act by choice. The concept of "flapping the bird until he's too tired to misbehave", while doing nothing to teach proper behavior, will damage the relationship between parrot and parent, and can have serious effects on the birds physical and emotional health. Flapping exercises must always be done ONLY TO THE BIRDS ACTIVITY TOLERANCE LEVEL, must always be reinforced with various rewards, and must be done several times daily to promote optimum health.

A well exercised bird is more content, less prone to stress, and less likely to act out in a negative manner.

The “wobble technique” was designed to correct a baby parrot that is getting a little “beaky” while sitting on the owner’s hand/arm. The idea is that the arm is given a little shake to temporarily knock the bird off balance, thus breaking his concentration and making him forget all about biting. As a punishment technique, this is often taken too far, and the bird is violently shaken off balance (usually with verbal admonitions), sometimes falling to the floor. When we remember that most punishment techniques are applied out of a subconscious sense of revenge, we can see how easy it is to treat a hard bite to the arm by flinging the parrot to the ground. This action takes a split second to occur, but the trust destroyed can have long standing repercussions.

Using Excessive Aversive Stimuli:

These techniques go beyond making the pet feel uncomfortable, and may actually cause pain. Flicking or grabbing a bird's beak and shaking it, pulling out feathers, or even hitting the bird, all represent a relationship that has degraded to the point that rational thought no longer applies. These techniques are cruel and, rather than training a bird what he/she needs to learn to be a functional member of the household, sets up a viscous cycle of aggression and fear that is difficult to escape. Given what we now know of these remarkable creatures, it is hard to believe that some of these techniques can be found in books published as recently as 15 years ago. Parrots are only 2-3 generations removed from their wild counterparts, and have all their wild fight-or flight instincts intact. When these essentially wild animals convey the level of trust we know parrots are capable of giving, we are deeply honored. To intentionally inflict pain on these animals betrays that trust on the most fundamental level. Simply, we should never use pain to motivate our birds!!!

Abandonment - A Throw-away Solution:

Sadly, this is all too often the final option selected by many pet owners. Every year, thousands of parrots end up in shelters and rescues, or are returned to breeders under the pretense that they will be happier somewhere else. While these owners rationalize their actions by saying there was nothing more they could do, these birds enter a very uncertain future with the heavy burden of years of emotional and behavioral baggage. They carry the negative behaviors that have been patterned in their first home, to every new situation they encounter. In Veterinary practice, it is a common occurrence to see birds that are living with their third, fourth, or even fifth owners. If allowed to raise their own young in a breeding situation, they can pass these behaviors on to their off-spring, setting up the next generation for potential failure. Parrots are too sensitive and intelligent to be bought, sold, and traded on a whim. It is important to accept our own responsibility for the problems seen in our parrots, and seek gentle alternatives with proven success rates to re-establish the connection we once had with our feathered companion.

THE FACTS ON PUNISHMENT!

In order for a punishment to work as a means of modifying behavior, it must meet very specific criteria. Steve Martin, of Natural Encounters, Inc., states “The timing of punishment is critical to its effect on behavior.” In order for the association to be made between act and consequence, the pet literally needs to be caught “in the act” at the first incidence of the negative behavior. Unfortunately, we often only discover our pet's transgressions after the fact, or after several incidences of the pet getting away with the behavior. Any punishment

Without a
doubt, we
simply should
never use pain
to motivate
our birds!

applied in this instance only leads to confusion on the part of the pet, as to why they're being reprimanded. Even if your pet is caught red-handed (or red-beaked), the punishment would have to be severe enough to override the pet's motivation for performing the act in the first place, thereby, decreasing the likelihood of it occurring again. All too often, we start by applying a mild scolding, but as our frustration grows, we escalate our efforts. At each step in this all-to-familiar sequence, our birds become desensitized to our methods. In this cycle, birds lack the opportunity to learn alternative reinforcement achieving behaviors. Eventually, we are trapped in a cycle of constant frustration and increasing hostility. Any trust we have established with our birds has been destroyed, and we begin to look at our companion as a burden instead of a blessing.

While remaining an inconsistent and difficult method of training due to our poor understanding and inappropriate application, punishment also carries many serious side-effects. According to Susan Friedman, PhD, “Research on the effects of aversive punishment is not new, nor has it been narrowly investigated. On the contrary, this research spans many decades and has been replicated with many different species of animals, including humans” *. Researchers have identified four primary side effects of the application of aversive stimulus as modification tools: 1) Escape/Avoidance behaviors, 2) Overall decreased responding, i.e. apathy, 3) Aggression, and 4) Over-generalized of fear (phobias) (Azrin and Holtz, 1966).* Our once beloved companion may withdraw from any interaction with us, run or fly away at our approach, or even attack to avoid any negative stimulus. These unhappy souls may live in a constant state of anxiety, and the long-term consequences of this high-stress state can include feather-picking, self mutilation, stereotypies (excessively patterned movements, like tigers pacing in a zoo), and severe phobic behavior or aggression.

TRUST BUILDING VS. TRUST DESTROYING

This is the question we need to ask ourselves before setting out a training program. Is the action I'm about to take going to build trust between my bird and I, or destroy it? By using this simple criterion to examine the above listed techniques, we can see the potential damage they can cause. The wonderful news is that THERE ARE ALTERNATIVES!

APPLIED BEHAVIOR ANALYSIS (ABA)

ABA is the technique of examining a behavior in terms of the environmental elements that set the foundation for the behavior to occur (antecedent), the target behavior that needs modification (behavior), and the immediate result of the behavior (consequence). No behavior occurs in a vacuum. All behaviors are a result of environmental influences and reinforcement histories. This simple equation, Antecedent=Behavior=Consequence, is the ABC of behavioral analysis. In order to modify a behavior, one must: 1) Identify and manipulate the environmental stimulus which causes the behavior, and/or 2) Alter the consequence of the behavior to either increase or decrease the likelihood that behavior will occur in the future. When identifying environmental triggers, it is important to remember the importance of immediacy. What happened immediately before the target behavior? Were there any body language signs that indicated the behavior was about to happen. What in the environment signaled the first body language indicator? When analyzing consequences, we must identify the reinforcer that caused the behavior to be repeated, and eliminate that element, while at the same time rewarding alternative more acceptable behaviors. Many people are so fixated on what they want their birds “not to do”, that they forget that birds can't just sit still. They need to be given something to do instead of acting



out. In order to eliminate negative behavior, these alternative behaviors need to have a greater reward value than what was attained by the negative behavior in the first place.

POSITIVE REINFORCEMENT TRAINING (PRT)

PRT is the most gentle and rewarding training method available. It works on capturing and strengthening good behavior through a variety of rewards. Although often dismissed as “bribery” training, we see countless examples of PRT in nature itself. A wild parrot that finds a tree laden with fruit will continue to return to that tree, but only until the fruit is exhausted. Once they receive no more reinforcement for their efforts, they return less and less often, until the behavior is extinguished (or the tree blooms again next year). Every living thing on the planet will naturally work to attain greater resources/mating opportunities, etc...In countless laboratory experiments, using a variety of species, from mice to primates, animals who were trained to work for rewards, continued to do so, even when given free access to another food supply. Reinforcement works that powerfully on our consciousness. This technique first gained wide acceptance in the 1960's, when it was applied to marine mammal training. Dolphin trainers taught amazing, and sometimes highly unnatural behaviors (including the acceptance of sometimes uncomfortable veterinary procedures, without the use of anesthesia), using a wide array of rewards. Now this technique is used to train countless species around the world, but has only recently made its way into the world of companion animal training.

IN CONCLUSION

Given our sub-conscious drive to use dominance, coupled with the impact of splitting ear-drums, bruised skin, and hurt feelings, it is no surprise that these time-honored training traditions have become so entrenched in North American aviculture. Every parrot owner can close their eyes and think back to a time when their frustrations overrode their best intentions for their birds. Recognizing this is the first step to making a real impact on the way we relate to our pets. Seeking out training methods which strive to develop and build upon the trust

our birds convey on us is the next. Picture a relationship with your bird that is based on rewards and games. Picture your bird willing to do anything for your approval. Picture negative behaviors gradually fading into the past. It is our responsibility, as parrot parents and stewards of endangered species, to make the most of our relationship with them. It is one that is designed to last a lifetime.

STAY TUNED to your next issue for more details on how to use Applied Behavior Analysis and Positive Reinforcement Training to strengthen your relationship with your bird!



Kristi Flemming:

Kristi has worked with exotic animals, ranging from hamsters to dolphins, for 14 years. She also has extensive experience as a parrot nursery manager and is currently working as head technician and avian behavior consultant at the Animal Hospital of High Park. Kristi is a professional member of the International Association of Avian Trainers and Educators (IAATE) and the World Parrot Trust (WPT).

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WHAT'S THIS



ANSWERS

1. Papillae in the choanal region of a bird with a chronic obesity problem and possibly related hypo-vitaminosis A and E. Note: the teeth like projections should be pointed and not blunted edged. Swelling of the choanal slit can also be observed. Periodically inspecting the choanal region for the presence of healthy papillae can help you monitoring the health of your bird, and alert your avian veterinarian in the event of degenerating papillae.

2. No this is not a unicorn mutation. It is in fact a protrusion from the beak that grew following beak trauma close to the nares. Suture material was used to constrict the base of the growth that fell a few weeks later, without any trauma.

3. & 6. Emaciated pectoral muscle of a companion cockatiel that died following egg dystocia (complications with egg retention) in picture #6. The caregivers never noticed the weight loss, abnormal droppings, chewed toes on the left foot due to nerves impaired because of the presence of the egg within the oviduct, tail bobbing and labored breathing often associated with this condition.

4. Cloacal papillomas. This is a herpes virus that can be compared to our human cold sore. Old world species particularly can be infected with this virus, especially the older, formally wild caught breeding individuals. Breeding success can be

affected when a papillomas erupts. Natural remedies, and an optimum diet can diminish the eruption of the papillomas, although this is a chronic infection and an experienced caregiver should master essential first aid techniques to manage an outburst. A complete physical exam (especially for future breeding individuals) should include inspection of the cloaca. Using a cotton tipped applicator, your avian veterinarian can carefully evert the cloaca to inspect the tissues. A 5 % acetic acid can also be applied to the cotton tip applicator onto a doubtful rough surface, to get a tentative diagnosis, if compromised by papillomas the surface will turn white.

5. Umbrella cockatoo with affected feathers, typical of Proventricular Dilatation Syndrome. No... we are not mistaken, PDD and not PBF. Numerous years of research at the Hagen Avicultural Research Institute have identified over the years a definitive association with PDD and feather lesions. This cockatoo also suffered from central nervous system damage, yet no weight loss was recorded or presence of undigested seeds. PDD was confirmed by histopathology. This is a mind boogling disease that will require a complete brainstorming for the avian scientists struggling to determine it's true nature, as it no longer manifests itself as the macaw wasting away disease of the past.

Josee Bermingham



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Robert Papineau
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Personalize a store bought cage with a dash of exotic flavor. Quite often the cages available on the market lack a little originality and warmth for our little feathered friends or decor. We do buy a parrot for it's intelligence and affection but also perhaps because we need an exotic touch in our life.

So here is a simple way to modify it's cage with a little bamboo.

Required materials:

- About 5 bamboo sticks of 2 inches (6cm) diameter.
- 8 hose clips of 2" inches (7.5 cm)
- N.B. Bamboos are sold in length of 7 feet and so the quantity you will need will vary depending on the size of your cage.

Tools:

- 1 screwdriver
- 1 saw
- 1 measuring tape

Step by step...

Step 1:

Cut 4 bamboos at required size

Step 2

Install the 4 bamboos at each extremity of the cage by securing them with 1 hose clip at the bottom and 1 at the top

Step 3:

Measure the distance between the 2 bamboos on the front of the cage

Step 4:

Cut the remaining bamboos for this measure

Step 5

Fix the last bamboos with hose clips on the top and lower level of the cage.

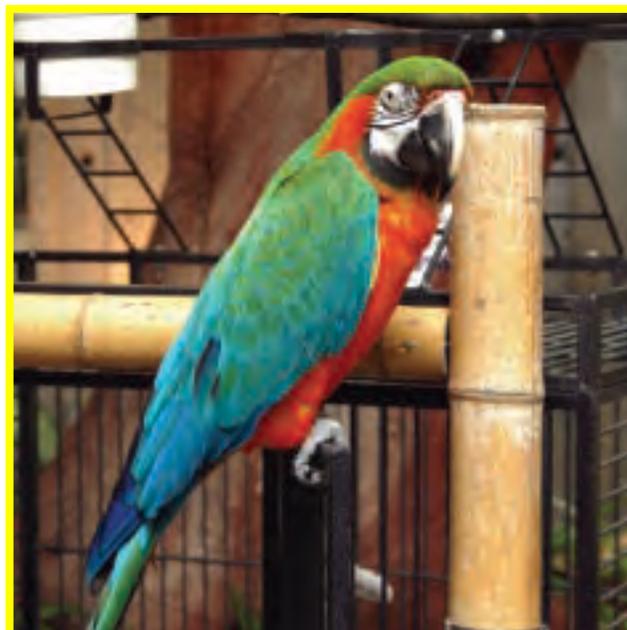
Step 6 (optional):

If you are more skilled you can also cover the drawer of the cage with a piece of bamboo by piercing 2 holes in the front of the drawer and fixing a pre cut bamboo with 2 wood screws from the inside.

There it is! In a few minutes you've transformed your cage with a dashing exotic touch worthy of a parrot! The nice thing about bamboo is that your parrot cannot destroy it!

Till next time

Robert Papineau
Perroquet en Folie



HELPFUL HINT:

Upgrading your cage bottom tray with the installation of adhesive vinyl tiles can prolong the durability of the metal sheeting found in most cage bottom trays. A few dollars for the tiles and a few minutes to thoroughly clean the tray prior to the installation of the tiles is all that is required. Cleaning will be greatly facilitated for years to come!



GROOMING TECHNIQUES USING THE ROTARY TOOL

The use of the rotary tool for nail grooming is now in vogue



Necessary equipment for grooming.



Demonstration of safe restraint technique for larger parrots

We featured an introductory article on safe grooming techniques for the smaller companion bird in Issue 2.

This subsequent article is simply to highlight the different technique that is now favored by most avian specialists that offer grooming, aviculturists and a growing number of avian companion guardians for the medium to larger bird species.

The use of the rotary tool for nail grooming is now in vogue for obvious reasons:

- It causes less trauma to the bird's nails than using the conventional cutters
- It cauterizes bleeding when applied with a stable position should the vein accidentally be damaged. This can eliminate the controversial use of silver nitrate application.

- It is an excellent tool to have in your avian emergency kit, as broken and bleeding nails can quickly be cauterized. For the experience handler trauma to the beak resulting in bleeding can also be repaired.

- Different grooming stones .I prefer using the softer, less course grained stone, usually light blue or green for the medium to small birds.

The stones can be interchanged between birds, to minimize contamination.

- The courser grain can be used with caution on the larger species.

- For the avian rebel that will not comply with grooming, when used in conjunction with safe restraint techniques the use of the rotary tool can be less traumatizing for the bird.

The velcro strap is practical for the safe restraint technique when using a towel.

Note: There should be no controversy regarding the ethics of restraining birds in towels. Young birds that are initiated at a young age to this technique are not stressed by this procedure. Birds that have never been restrained in this fashion, will demonstrate less fear and aggressivity if the towel technique is well mastered. No birds in my opinion should be restrained with pressure points from the hands, whether bare handed or with gloves! With the hundreds of birds restrained twice per year at HARI for complete physical examinations and blood sampling, we can affirmative conclude that proper towel restraint is by far the less traumatizing.

Controversy from a certain avian behaviorists has arisen regarding the use of towel restraint following our past article... which I would like to address. With all due respect, we believe that the safety of the birds are the priority and that despite all the possible positive reinforcement techniques, no matter whether a bird after numerous years of training can deliberately spread it's wing for a vein puncture in the ulnar vein (situated inside the wing), the possibility that the bird might move is too much of a risk for any professional avian veterinarian to take. The consequences could be quite traumatic and the confidence forever destroyed in the cage giver. Common sense must prevail!



Using a manicure rotary tool for nail grooming is safe for birds.



Rotary tool for larger species



Velcro strap

- With positive reinforcement and a trustworthy relationship with your avian companion, the use of the rotary tool for manicure can be used without restraint. This model is practically silent. Cordless and almost silent models are now available, thus diminishing the stress related to the noise older models generated.

Now affordable-the manicure models are available for 19.00\$ can!
Our young fledglings are now introduced to this rotary tool on their nails at when they have comfortably and confidently learnt to perch firmly.

Alexandrine Parakeet



Parrot Care

SPECIES

- **Species name:** *Alexandrine Parakeet*
- **Latin Name:** *Psittacula eupatria*
- **Country of origin:** *India, Nepal, Pakistan, Bangladesh, Sri Lanka, Burma, Thailand, Kampuchea, Laos, Vietnam and Andaman Islands * 1*
- **Availability in the pet market:** *Fairly available and a few generations of captive breeding*
- **Size:** *reach 58 cm including tail (which can reach 36 cm or 14 in long)*
- **Weight:** *250 gr (9 oz)*
- **Clutch size:** *(2-4)*
- **# Clutches per year:** *(2-3)*
- **Incubation of eggs:** *about 24 days*
- **Fledging age in the wild (feathers fully grown):** *7 weeks*
- **Average (healthy) weaning age:** *10 to 14 weeks*
- **Reproductive maturity:** *3-5 yrs old*
- **Expected life span in captivity?:** *Between 25 to 40 years*

*1 From *Parrots in Aviculture* by Rosemary Low

Behavior Rating (Scale of 1 to 10) 10 being the highest

Personality:	Very gentle and calm. The Alexandrine Parakeet is so peaceful that despite being quite large it can be beaten by a smaller and more aggressive bird. Usually not a very physical player.
Sociability:	They tend to be a bit shy and thrive in a peaceful environment. But I've known a few that lived in large families with teenagers and lots of activity around them and were doing very well. If you are looking for a "party" bird that loves to physically play, this might not be the right species for you. "If we can compare a lovebird to the adolescent running in your house on roller blades with a phone to one ear and his "Ipod" on the other, then an alexandrine is more like the quiet teenager reading a book at the kitchen table."
Easily tamed and gentle:	(7 to 10) I found them to be some of the sweetest and gentlest birds I have hand fed. Even those that were put in breeding situation, when placed back in as a companion were still tame and gentle (although a bit more nervous at first).
Family companion bird:	(5 to 8) Depending on the family dynamic, I would not recommend an Alexandrine for a family with children with a lot of stamina. However, it's usually not the kind of bird that would go out of its way to bite someone because it's jealous and wants to keep you for itself.
Playfulness:	(2 to 6) Enjoys seeking treats in foraging toys and mostly, chewing wood.
Biting behavior:	Usually not a biter when raised properly and feeling secure.
Physical contact & demonstration for affection:	(6-8) Alexandrines can be real charmers. They love to hang on your shirt at chest level, anticipating a good head scratch.
Singing ability:	None
Screaming strength:	(6)
Frequency:	(4)
Screaming pitch:	(raucous or very piercing)
Talking or mimicking ability:	Very nice sweet girly voice and most of them learn an average of 10 to 20 different words.
Quality of pronunciation:	usually quite good
Destructive behavior:	(4) they don't usually go out of their way to destroy things if you provide them with lots and lots of wood to chew on.
Chewing activity:	(10) they usually chew more wood, and faster too, than a large macaw!
What degree of independence can this species develop?	(6 to 9) .Some are very happy with just being in the same room as you while others prefer to have more interactive periods, one on one. Of course, all depending on how they were raised. We recommend, as with all other species, to teach your Alexandrine to play alone happily and to develop its autonomy and independence.
How much time will the bird require to be handled per day?	Ideally, a minimum of 3 hours per day divided between interactive one on one playtime and training and a period shared by just being together in the same room (interactive non-contact interaction) . However, should your busy schedule not allow you to spend contact interactive quality time together, this bird will be faithfully waiting for you and still be your friend when you have more time. Please don't let that become a habit!
Eating flingers and messy droppings:	(7) Although they are not really food flingers they make a bit of mess with their water and feeding dishes, like most Indonesian parrots they are big soakers! Their droppings are quite normal though, no special messiness there.
Tendency to engage in feather damaging behavior?	Not very common.
Caution:	A special mention must be said about molting time: twice a year your Alexandrine will look a bit frumpy like it's just getting out of bed and didn't have the time to comb. Don't worry... it's molting time and it should pass in about 3 weeks. During that period additionally to offering an optimum diet, I recommend that you give 2 almonds (in the shell) to your Alexandrine to help with the molting.
How expensive is the bird to buy?	\$700 to \$1,200 Canadian (higher for color mutation)

SpeciesPROFILE

Description:

An average size parrot with a very long thin tail that gives this bird a very elegant and classical appearance.

It's beak is quite big for the size of the parrot and has a nice red-salmon color.

Plumage is mostly green with the wings being a couple of shades darker with a red salmon patch on the shoulder.

Sexual dimorphism?

The male has a beautiful ring around the neck; salmon pink on the back and black on the front.

The black ring goes up to the lower corners of the beak.

WARNING: This ring however can show as early as of 3 or 4 months old and as late as after 3 years old. So when buying a baby, DNA sexing is recommended if the sex of the bird is important for your selection.

Immature

They look like the female (lack of neck ring) but their tail is still short and their eyes are brown instead of crème.

Color variations include:

Darkgreen, Greygreen, Turquoise Blue, Blue, Lutino, Lutino Greygreen, Albino, Albino Grey, Fallow, Clearhead Fallow and Pied.

N.B. These are color mutation and combination from pure *Psittacula eupatria* origins. They are not hybrids between *Psittacula krameri* (Indian ring-necked parakeet) and *eupatria*.

Housing requirements

● How spacious should the day cage be:

A bird cage should be spacious, secure and cleaned frequently. Ideally a minimum of **36 X 24 inches** would allow them more movement and activity, of course with a tail that long the height should also be proportioned and be at least **36 inches**.

● **CAUTION:** Be sure to check the wire for resistance since they do have tremendous strength in their beak.

● Keep bird cage in a safe location, away from dangers such as direct sunlight, kitchen fumes, cold temperature and predators

● Sleeping cage size requirements:

Could be as small as 20 X 20 inches (provided the height allows ample space for the tail feathers) since it is a sleeping cage and it could also be used as an hospital cage should your bird get sick.

● **Stimulate activity:** Prefer some horizontal bars to encourage climbing. An open roof cage play gym is not recommended for a bird that big since it will be probably too high for you to get it when it's time to go back in it's cage. Nonetheless, play gym and flying exercises are strongly advised. Interior flight cage easily be constructed with large gage wire.

● Secure your homes from any potential dangers before letting your bird fly around freely; always monitor its flight. (eg. Mirrors, open windows, fans)

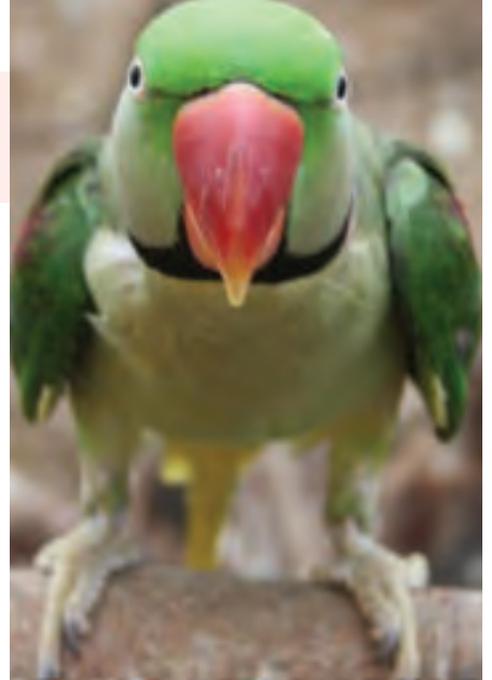
● What perch sizes should be offered:

Minimum 3 sizes or shapes & texture; ideally 1 inch or 3cm diameter, a manzanita perch type and a chewing perch. Because they are active chewers they mostly chew through all thypes of perches, thereforel have rarely seen them develop have pododermatitis (bumblefoot)

● **Additional in cage:** Foraging toys (acrylic is recommended!) and lots and lots of wood to chew on; fresh branches, construction wood, wood toys, etc.

● Ideally drinking water should be changed twice daily. Train to drink from a water bottle as well as water bowl since they will always put lots of food in their water bowl. Most Asiatic parrots are quite messy with their food and water bowls.

● **How susceptible is this species to disease:** generally they are very strong healthy birds that are not easily prone to sickness. They are very tolerant to cooler temperature since



originally they come from places where it sometimes snows. In a nursery they are a charm to raise since they are in such good health and very robust chicks.

● What are it's dietary requirements?

Offer a balanced nutritional diet. 70 % formulated /granulated pellets, 10 % seed mix or millet, 15 % fruits & veggies, rice, pasta, etc and 5 % of nuts i.e.1 almond a day or _ walnut (except when molting you can give 2 or 3 almonds in the shell) and occasionally dry egg food with additional dry insects

● Plain seed mixes can lead to obesity as well as deficiencies in calcium and vitamins. Try to feed your bird formulated diets or at least provide nutritional supplements

● **Light requirements:** 4 to 7 hours of full spectrum lighting and of course as much natural lighting as possible.

● **Sleep:** 10 to 12 hours of non interrupted sleep.

CAUTION:

Make sure to give plenty of chewing wood to your Alexandrine, they do need to chew more than most other parrots. Beware of their nails: they are as sharp as tiny needles, but please do not trim them too short or too round as they need to be able to perch firmly. ■



8-14 day old Alexandrian chicks in nest





ALEXANDRINE PARAKEET - "LILO"



A majority of people enthusiastically embrace the subject and merits of zootherapy, also called animal assisted therapy.

However, most do not realize that this therapy can be effectively undertaken with a large variety of species. I believe it's important to note that, as well as using a dog or cat, one of my therapy companions is my Alexandrine Parakeet. My Alexandrine Parakeet, Lilo, assists me in zootherapy, zoo-education and counseling.

The key to being successful in the practice of zootherapy is to work in conjunction with the animal. This creates a trusting relationship with a human seeking help to arrive at a better quality of life. Lilo, my Alexandrine Parakeet assists clients presenting a variety of disabling conditions. For example, among our clients, there are troubled youths with behavioural difficulties. First and foremost, while learning how to approach the bird, which necessitates

the young person getting in touch with his/her inner self and consciously practicing self-control, the youth progresses toward acquiring self-respect. Second, depending on the goal of the session, we ask the client to teach Lilo to distinguish between colours. With cunning and patience the young person experiences various emotions, including a reflection of what those around him experience on a daily basis because of his reactions and behaviour. Lilo motivates the reception of self understanding that would not be accepted as readily, if at all, by the youth if it were given by a human.

Lilo also assists me with zoo-education courses in schools. We provide young students an



information base for understanding birds. The Alexandrine Parakeet is a sociable bird and an exceptional talker. My Lilo does not talk very much and I use his lack of "words" in therapy sessions. Once the young person has found information on the subject of the Alexandrine Parakeet, I explain the "deficiency" in Lilo's ability and thereby open the door for the youth

to express him/herself freely without fear of being judged. The creation of a trusting relationship is facilitated by my Alexandrine Parakeet and effortless learning follows. When counselling a client, it is very important to respect the bird. The client, above all, must achieve self-respect in order to facilitate his/her access to my Alexandrine Parakeet. Lilo, as is the case with many birds, is in direct contact with emotions. He thereby helps humans work on their personal evaluation. A person lacking self-esteem is often very impressed by the Alexandrine Parakeet and his presence. Thanks to the information gathered, the client learns to understand, on an emotional level, that the Alexandrine Parakeet is a prey in the wild. I am thereby enabled to help people with issues of social distress. The "mirror effect" is often used.

Zootherapy (Animal Assisted Therapy)

Aggressive reactions, which are very rare with my Alexandrine Parakeet, express the power and the displeasure, which is used as a reflective explication of reactions of other humans to the clients attitude. The client arrives at his own realization of his impact on others. In conclusion Lilo, my Alexandrine Parakeet, is not only a work tool, but also a partner. He feels the emotions of others that may escape me. He co-operates readily with a majority of people, which facilitates our interventions destined to help people who are our clients.

The well-being of my bird and that of the clients is essential. Requests for zootherapy services (animal assisted therapy) in Québec are more and more frequent. However, institutional budgetary considerations (in schools, senior homes, day care centers, respits, etc.) are not keeping up with the requests. This has created a financial constraint. Mme Huguette Laferrière and I (Isabelle Bouthillette) have created a fund-raising, non-profit foundation: "ETAZ" (l'enseignement et thérapie assistés de zoothérapie / loosely translated "teaching and therapy assisted by zootherapy") in order to mitigate this financial discrepancy.

"L'association québécoise de zoothérapie (AQZ)", composed of zootherapy professionals in Québec, also exists to promote awareness of zootherapy and it's benefits, and reply to persons seeking information.

by Isabelle Bouthillette
founder of "Les Amis de Delphine" and E.T.A.Z.
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AUSTRALIA

AVES SAFARIES AN OPPORTUNITY TO GET OFF THE BEATEN TRACK

Editorial by: Neville Comers Photo's by: Povl Jorgensen and Michael Beaudy Ferland



A blast from the coaches horn lifts a cloud of corellas which simply move on a 100 meters or so

At the completion of our first AVES convention in 1993, prearranged Howard Voren one of our speakers who hails from Florida and myself headed off for a trip to western NSW, to view the wildlife and in particular the magnificent flocks of cockatoos.

It was a delightful couple of days with great conversation and some magnificent sightings. this enabled Howard to capture some great photographs of huge numbers of Galahs and Sulphur Crests along with other parrot species.

Upon Howard's return to the states he wrote an article complete with some knock out pictures in one of the major US bird magazines at that time. Well that was the start of it all, I started receiving requests "so if we come to the next convention are you going to take us outback?"

The late Dave Harrison and I

gave it some thought and that was the commencement of the outback tours. The AVES conventions are conducted every second year. On each tour we vary the direction and

plan the trip around the location of the various parrot species. The idea being, to offer potential delegates to AVES, an opportunity to get off the beaten track with a



Viewing Little corellas taking their siesta ...from a bridge in the small town of Cunnamulla Sth East Queensland

group of like minded people for a truly memorable tour. Rather than leave it to chance we recruit some local knowledge from a variety of people prior to setting out. This helps us keep informed as to where the birds are currently feeding as their movements are often governed by available food types. Some of the more obvious and plentiful species are simply located along the way and we pull the coach over wherever possible. Wildlife such as Emus, Kangaroos and numerous other species are frequently sighted, as central and western New South Wales have an abundance of parrot and animal life.



Greater sulphur crested cockatoo

happily coexisting with the local human population. As the trip is held in August, the commencement of

Each tour has experienced the unexpected. During a lunch break at a central NSW town of Walgett on the 2005 safari, the dining queue at a small restaurant was immediately decimated after someone raced inside yelling Red Tails right in the center of town.

Although the enthusiasm wasn't shared by the Restaurateur, we were treated to some great sightings and captured them mostly with digital images.

It wasn't surprising to see these cockatoos but we really didn't expect to see them for another hour or so westward of this town. They seemed to be

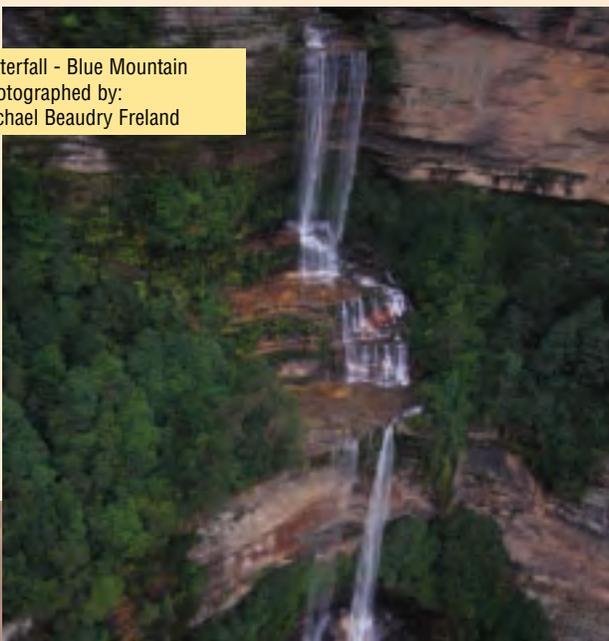
Australia's main breeding season it is expected to site parrots at nest or exploring hollows. We have been fortunate to catch a number of species going about this task.

A destination that has become almost mandatory is a small accommodation park on the outskirts of Bourke, the most western point of our tours to date. Within walking distance and coffee mugs in hand we have been able to site an amazing array of parrot and other bird species. During the 2003 tour a Galah was found observing the observers from the entrance of its hollow, as we visited this bird rich locality again



Greater sulphur crested cockatoo - Blue Mountain - Photographed by: Michael Beaudry Freland

Waterfall - Blue Mountain Photographed by: Michael Beaudry Freland





The worlds first! The result of a cockateil and a Galahs love affair in a small outback town in western NSW.



Little corella in flight.
Cacatua sanguinea sanguinea

in 2005, we were amazed to find a Little Corella occupying the same nest. Extra attractions are a feature of these outback tours, visits to Zoos, animal parks, gem mines, grave yards, hot springs, dining, wineries, boat cruises, limestone caves and of course visiting aviaries along the way. This all adds to the enjoyment for participants. The AVES 2007 outback

itinerary will take an approximate 3000 kilometer trip and numbers are limited to 50 people. The modern coach will head west from Grafton after a morning coffee break at Casuarina Parrot Gardens. The journey takes across the "Great Dividing Range" the land forms alter dramatically on the western slopes as do the species of animals. We hope to site

approximately twenty species of psitticines along the way.

The experiences on the six day sojourn will be dining from Chinese cuisine to Aussie BBQ's. This includes the traditional damper, swimming in hot mineral pool, bird and animal watching, aviary visits, Dubbo's Western Plains Zoo, Cable car ride, Featherdale Wildlife Park and a dining cruise on Sydney's spectacular harbour by night.

The Plains zoo where animals have enclosures measured in acres is viewed via a road circuit as it covers such a huge expanse of land. Although our coach will carry the participants to the observation points, the option to hire a bicycle is preferred by many.

Featherdale wildlife park is the best place in Australia to be able to observe a magnificent array of Australia's birds and mammals, as they display not



Little Corellas in a unusual cavity entrance

Scaly Breasted Lorikeet.
Lone Pine Sanctuary



Bourke - Childish fighting



only common types but many that even Australians never get to see in the wild.

The finale of the tour will be cruising Sydney's world renowned harbor by night. Dining and entertainment are included on this final evening of what we can expect to be a most wonderful experience.

Both the convention and the tour are designed as a non profit exercise. This ensures the best value for money that the members of the Northern Rivers Avicultural Society can organize.

Something that has become a tradition is having the members of the tour pool a number of their favorite images taken both at the convention and safari. This way we can circulate a copy to all the delegates who attend the AVES conference. ■

For a thorough inspection of the itinerary visit www.parrotconventsaves.com



Outback Tour 2007

Versatile living quarters for

By: Josee Bermingham AHT



FAQ from a one soon to be parrot owner prompted this answer and following article:

"I would like to know which cage would be the most suitable for this specific parrot I am interested in acquiring. I'm not sure yet where I will place this cage within my home as I must accommodate the other family members, but I am sure that when I have selected the cage style and size then I will find the perfect décor to blend it in. Of course. The purchasing of my first bird will be expensive and so ideally I would like to buy the cheapest cage possible for now."

Well... my answer would be to state the realistic facts straight from the start... Your parrot will require numerous living quarters within your home, and definitely 3 cages. 1 training stand, hopefully an outdoor flight or cage and most definitely a reliable avian adapted transport cage for it's departure from the store and... oh yes... I almost forgot... an avian harness as this young fledgling bird will learn how to fly and develop healthy breast muscle within the next few crucial months!

As for the price of the first cage... I believe that a reliable, lead free paint coated cage for a weaning bird should not be the biggest as successful adaptation of a young bird into a new home is most easily achieved with a small safer environment. And so the first cage will soon be converted into your birds' sleeping refuge\boarding and weekend cage in a few months. Therefore, realistically the expenses can be attributed to the other necessities such as a transport cage, a good supply of healthy nutrition, a variety of toys, jungle ropes and 3 other types of perches and lets not forget the scale to make sure your young chick doesn't unwean... educational books avian companion magazines and DVD's for guidance to provide optimum care and education... the optimum day cage can then be ordered and paid on a monthly basis if finances are restricted and by the time the cage is paid for, within a few months perhaps the aging fledgling can be transferred to it's new environment during the day.

Note: I always recommend for stores to offer educational seminars for the first time avian guardian. For a minimal fee, all this vital information and more can be conveyed before the purchase of bird. The financial investment and education needed to be invested prior to the purchase of the bird can be overwhelming; therefore it should be planned and not come as a surprise.

your avian companions

Numerous years consulting with first time parrot owners and desperate, overwhelmed parrot guardians that have exhausted their resources to modify unwanted behavioral problems has contributed to reflect on the lifestyle they have provided to their companions.

In the majority of cases, a reevaluation of the bird's lifestyle and consequently a dynamic wind whirl of changes will be needed.

First and foremost, numerous birds do not have the appropriate exposure to versatile living quarters needed to continuously challenge their instinctive potential for adaptability, prevent cage bonding and territorialism, and provide environmental stimulus.

Without a doubt, providing various environments adapted for your particular avian species within your home can contribute to a healthier and longer lasting relationship with your avian companion.

Undesirable behaviors can be quickly managed and eventually modified when our birds are provided a comfortable and secure retreat or sleeping quarters, an established training stand located in a neutral zone, away from disruptions and a spacious stimulating environment for their day cage. The trend for healthy living is now in vogue for our feathered companions as well as for us. Combining ingenuity, creativity and availability of safer materials for flight construction, outdoor living quarters should be an essential habitat provided for all our companion birds. Regardless of the length of the season this flight will be used or the space available for this outdoor retreat, no bird should be deprived of fresh air and wind to ruffle up their feathers when weather permits! A reliable flight harness should also be considered when acquiring your bird, as this will also contribute to versatile living and you will gain credibility as a responsible guardian. As previously mentioned in Parrot Life Vol.3, an avian transport cage should be purchased and adapted prior to bringing your companion into your home.

Lets elaborate on the function of each of these environments, contributing to the versatile living habitat for your feathered companion.

The Day Cage

Function: *To promote an enriching and stimulating environment for your bird to spend the most active part of his day*

Similar to a child's day care: cage must be safe, bird friendly and suitable for occupational therapy such as:

- Daily misting (unless you have adapted a perch in your shower)
- Incorporate innovative materials and props to encourage foraging activity
- Stimulate exploration by adding java wood cavities, cardboard boxes, tasting and discovery of new chewable wood, exciting flavors and textures.
- Alternate new toys and try to provide for every category of toys, as Michelle Karras DVD "The Importance of Toys" explains, there are 5 different categories! Note: it is not necessary to overwhelm the bird with too many toys at once. A storage box with this bird's specific toys and materials should be identified (especially if you have more than 1 feathered companion) and used only for this individual, to minimize cross contamination when rotating accessories.

- Expose your bird to music or T.V, proximity to human interaction with the family whenever possible during the day.

Set up for the DAY cage *(Featured picture opposite page)*

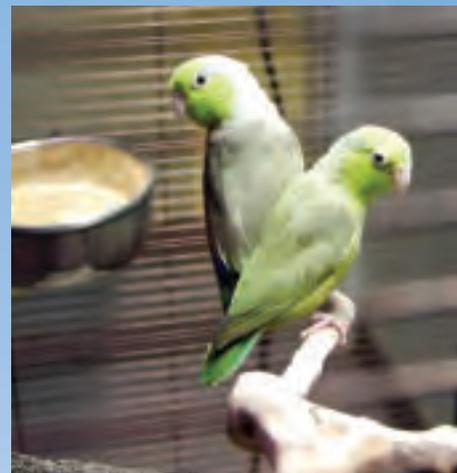
- Disposition within your home: the day cage should ideally be placed in the most spacious room possible, where daylight illuminate the room, ideally a smoke free and bird friendly environment. This is where the majority of the bird will spend its day and so many opt to add vinyl tiles surrounding the cage floor and on the cage bottom tray to accommodate for the extra mess. Obviously a room with carpet is not the ideal. Should your neighbors not appreciate

or tolerate the screams of your beloved pet, the day cage could be placed in a distant room or basement, provided there is plenty of daylight (a full spectrum lighting alternative) a fresh and well ventilated room and all the recommended criteria's for optimal health are met... there is nothing cruel about that in my opinion!

- Try to incorporate 3 different types of perches in the day cage. A chewable non toxic wood perch, manzanita or java wood, plastic perches near water bowls (as these are the easiest to clean thoroughly, a grooming perch and rope perch. The disposition of the perches and feeding dishes, toys and foraging material should be placed to promote exercise. Caution: Unless your avian companion suffers from a disability, do not try to accommodate him too much by placing everything for his convenience. Perch to perch directly leading to a feeding dish without requiring any physical effort... may lead to obesity!

Caution: do not allow the bird to perch on the cage wire frame when out of its cage as this may lead to pododermatitis. Suggestion: Affix a wooden perch with tie wraps that can be replaced when needed, or use swirling rope perches, or better yet place an exercise play gym accessible from the day cage.

- An optimum extruded diet should be available at all times in the day cage. In the late afternoon additional treats and seeds, fruits and veggies can be offered in the day cage ideally in a separate feeding dish.
- I recommend placing a water bottle suitable for your avian species, as well as a stainless or ceramic water dish. Offering a fresh supply of quality



drinking water each day is essential for optimum care. Plastic is not recommended for water dishes as I fear bacterial contamination adheres more to the inside corners, difficult to clean even with a toothbrush! Clean and disinfect the water bottles daily and replenish with fresh water even though its capacity to hold water is for a few days.

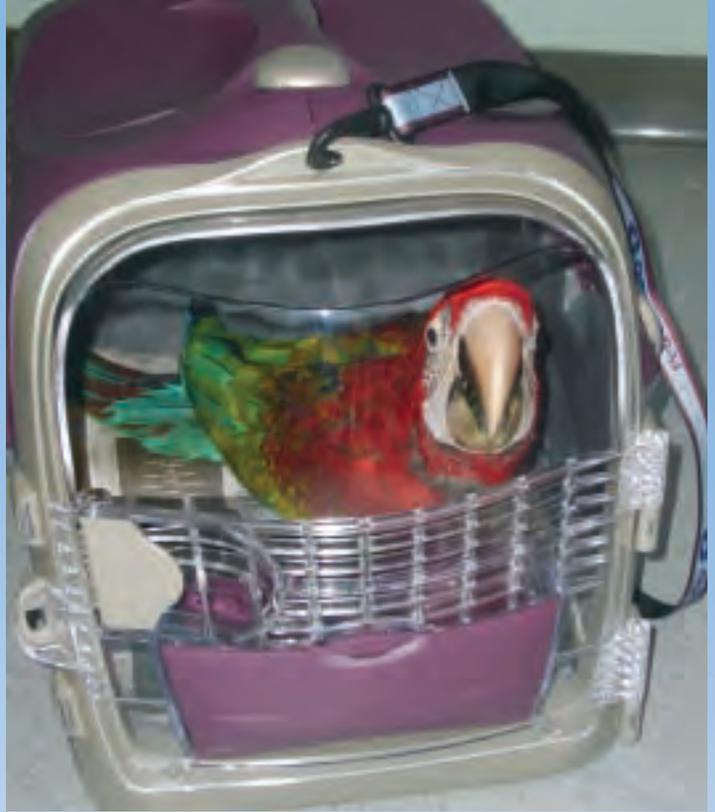
- Substrate, cage liners can be placed in the bottom tray of the day cage... unlike the sleeping refuge cage where I recommend the use of paper or recycled newspaper only. Although it is recommended to have a bottom wire grill if you are to place a substrate such as wood shavings, corn kernels or recycled newspaper litter to prevent your bird to come in contact with soiled or spoiled litter.

- A full spectrum lighting fixture close to the day cage is recommended for a minimum of 5 hours or more per day despite the exposure to daylight the bird receives.

Remember: the beneficial rays of sunlight are filtered by glass windows and excessive heat can also be emitted by exposure to direct sunlight.



Accustoming your pet to a small carrier helps reduce their stress level when transportation is required.



preparations, and review the training lessons with small food rewards, such as pieces of your cut veggies or pasta string, this can be an interactive way to spend quality time with your bird.

see if your bird will get accustomed to this small enclosed environment and feel comfortable enough to eat. Gradually start taking it out for a car ride and visit a friend. Should there be crises such as a sudden evacuation of your home for a fire, or a change of life whereby you are forced to relocate and your companion bird must live in a transport cage during the move, then the transition and change of environment will be easier to adapt for your feathered companion.

• **Note:** the transporter should be bought along with the initial purchase of any new bird. It is primordial that it be safely adapted for each species' individual comfort.

• **Location within your home:** transporter should be stored near the day or night cages, easily accessible, clean, equipped with a stable perch, feeding dishes and newspaper bottom. Note: It should definitely not be stored away on the top shelf of the shed or garage where rodents and spiders will have comfortably settled into it, and you must borrow the neighbors step ladder to reach it!

Outdoor flight

Transporter

Indispensable for emergency transport.

• Your parrot should be placed in this transporter periodically, to accustom your pet to this environment when not in a stress situation, in transport or injured. I would recommend 2-3 times per week for 20 minutes, install feeding dishes and patiently wait to



Sleeping-refuge Cage:

• **Emplacement within your home:** Peaceful, undisturbed area or room (not in your kitchen, beside the refrigerator, or near the T.V!) converting an unused closet, under stairway space, attic or basement are ideal for the sleeping quarters. Size can be smaller than the day cage. I recommend using the 1st cage purchased for weaning and fledgling age to be converted to use as a night-refuge cage. If your bird can comfortably spread its wings and its tail does not touch the bottom of the cage then it can be suitable. This cage can also be used for boarding and outings to the cottage. This cage is also a refuge and should be used as such when your bird (yourself or other family members!) could benefit from a time-out. As recommended to dog owners, the training cage will eventually become it's sleeping and refuge hideaway.

• To ensure optimum nutrition only a formulated extruded granule diet and a clean fresh water bowl should be offered in the sleeping cage as this will be your birds' healthy breakfast each morning.

• Cage should have night blanket adjusted to fit the cage. The addition

of a night lamp is recommended for night trashing species such as cockatiels.

• Substrate should be newspaper as morning droppings will be indicative of birds eating behavior and health. Unusual droppings can often signal a health condition that should be monitored.

• No toys recommended for the sleeping cage - this is a place for rest, there is no need for stimulation of the senses when your tired parrot needs to sleep... undisturbed! This is also not the time to have an ungroomed toy tangle up around your bird's head! Some species enjoy sleeping tents, and nesting cavities.

• A comfortable and sturdy perch is recommended, although not a cement perch as overnight perching is too much exposure for their soft feet on such rough or hard surface!



Teaching Stand

• This is the perfect place to teach basic commands. I would recommend that no food be placed in the feeding dishes during these sessions.

• The stand should be placed in a neutral zone, away from disturbances for training sessions. As we would when our children must concentrate and focus on their homework, no diversions needed to disrupt their attention.

• Relocate the training stand near your kitchen during meal

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UPDATES ON OUR LATEST PROJECTS

By: Desiree Milpacher

For almost twenty years The World Parrot Trust has been recognized as an international conservation organization that develops effective and long-lasting solutions to some of the most urgent problems facing wild parrots. Recently, WPT staff and volunteers have focused their energies on two areas that will hopefully have long-standing impacts for years to come.

Permanent EU Trade Ban on Wild Caught birds

On January 11, 2007 the European Commission announced that the Chief Veterinary Officers from the 27 EU Member States voted unanimously to continue its temporary ban to halt the importation of wild-caught birds. Initiated in October 2005, this action was extended until June 30th with a permanent ban coming into effect the following day, July 1st. The temporary ban is believed to have spared the lives of over five million wild birds, including parrots; the permanent ban will continue to save about four million birds - every year.

The EU Trade Ban came about as the result of a six-year long campaign by the World Parrot Trust, with the help of hundreds of other partnering non-profit organizations and the dedication of hundreds of volunteers. Comparable work to end the trade in wild-caught birds has occurred previously. In the early 1990's similar efforts were afoot on both sides of the Atlantic to convince various governments to end the importation of these animals. In the US, campaigners were successful in creating the Wild Bird Conservation Act, which was passed by unanimous vote in the House of Congress. This eliminated the US as the largest importer of wild parrots, and set the stage for the World Parrot Trust to begin its own campaign for the European Union. The campaign has been a great success, ending the suffering and loss of wild birds everywhere.



Playful Red-vented Amazons (*Amazona autumnalis*) one of the many species protected by the EU's recent decision to permanently ban the importation of all wild caught birds.

Photo by: AMAZON PARROTS
Bowles/Erickson | www.amazornia.com

**New WPT
Website @
www.parrots.org**

The World Parrot Trust has long focussed on bringing high quality information on parrot care and wild parrot biology to its members though its quarterly publication of PsittaScene. Recent efforts to redevelop the Trust's website promises to provide an entirely new online experience for parrot enthusiasts.

The shape for the new website has been guided from the results of an international online survey of parrot enthusiasts. With feedback from over 800 participants, the Trust gained a clear vision for developing their new site. Overwhelmingly, participants indicated that they wished to learn more about parrots and to have easy access to expert information on care, nutrition and behaviour in captive birds, and ecology and behaviour for parrots in the wild. After 16 months of volunteer effort, the result is a comprehensive and colourful display of the world's parrots coupled with an unparalleled level of information.

I. All About Parrots -contained within the new website is an online encyclopaedia of parrots and reference library which provides a kaleidoscope of the 350-plus species of parrots currently living in the world, plus short histories on the ones no longer in existence. Each "Parrot Profile" is illustrated with stunning photographs of nearly every species, and is filled with current information on behaviour, diet, breeding and enrichment of both wild and captive birds, gleaned from renowned experts including



Joseph Forshaw, Tony Juniper, Mike Parr, Thomas Arndt and Rosemary Low.

II. Parrot Bloggers-visitors to www.parrots.org will soon be able to discover the blogs (online diaries) of the exciting work of parrot biologists Toa Kyle and Sam Williams, zoologists David Woolcock and Karen McGovern, and naturalist/photographers Loretta Erickson and

Mike Bowles. Readers will experience a day in their lives and learn about how they conduct their important work.

III. Forums and Experts - WPT members are granted special access to interactive areas that provide unique learning experiences. Leading parrot experts such as EB Cravens and Phoebe Green Linden, our own Dr. James Gilardi, Nature Encounter's Steve Martin and behaviourist Susan Friedman have graciously donated their time to act as online experts, answering the toughest questions on all things parrot. Trust members further their learning by participating in international forums and discussion boards focused on parrot-related issues.

IV. Membership Extras and Trust Information - Trust members will have special access to downloadable parrot photos, video clips, eCards, and electronic copies of wild and captive research articles. Further access is granted to download back issues of seventeen years of the PsittaScene and copies of the Parrot Action Plan 2000-2004. These additions encompass a compilation of data from parrot researchers profiling the world's most endangered parrots,

and the actions required to save them.

Also available are histories about the Trust, staff, volunteers and trustees; as well there are comprehensive reviews of past and current projects, partners in conservation and articles on interesting ways for concerned parrot supporters to aid in the Trust's conservation, education and fundraising efforts.

With the success of the permanent trade ban and the launch of the new website, the World Parrot Trust continues to provide effective responses to parrot conservation and welfare issues. Never before has the need for the conservation of plants and animals been so critical. The need is great and time is short. We urge you to join our efforts by visiting the new website and becoming a member today.

Desi Milpacher is an aviculturist with a small flock in the Okanagan valley. She has a diploma in Animal Health Technology from the University College of the Cariboo (now Thompson Rivers University) and has eight years experience raising parrots.

Avian Artist • Paul Staveley

For the first time in a Canadian magazine UK avian artist Paul Staveley's work can be seen. When studying scientific illustration, Paul was taught by internationally recognized avian artist David Johnstone. Paul developed a strong ability for depicting form and feather structure which gives the subjects a very natural feel. Paul has work in collections throughout the world. The recent convention in Tenerife added to his growing reputation, where he received a good response from art lovers and aviculturists alike. Paul is also involved in the conservation of parrots, most notably the Patagonian Conure, an original painting of the bird was donated by Paul to the world parrot trust UK. Currently working on paintings for 2007 exhibitions and taking commissions.

More of Paul's work a can be seen on his web-site: www.paulstaveley.co.uk
<<http://www.paulstaveley.co.uk>>

You can contact Paul at:
info@paulstaveley.co.uk
<<mailto:info@paulstaveley.co.uk>>



The Brooder: NATURAL BREEDING IMPROVED

To be a parrot breeder is a very enriching feeling but getting better results than natural breeding is a much more intensified experience. Could we, the breeders, really make this difference? In order to answer this question David Vishnia, the Inca Incubator's developer, tested some common notions.

Temperature changes

The first consensus: in order to get better hatching results the temperature should be very accurate. The best way to test this idea was to measure the temperature during the incubating process in nature. For this matter, a Data Logger was hidden inside an artificial egg and placed in an Indian Ring Neck's nesting box in a wild environment and also in Rosslea's and King Parrot's nesting box in Vishnia's breeding farm. The Data



Logger datum shows an amazing incubating pattern in both places: the temperature increased and decreased between 35°C and 39°C during approximately one and a half hour cycle. In addition, sensitive temperature sensors were attached to some eggs to check the temperature differences between the upper part and the lower parts of the egg: while the environment temperature was 16°C, the upper part's temperature was 40°C and at the lower part of the egg, the temperature decreased to 32 °C. Thinking of it, one must remember that the brooding female body temperature is between 41°C and 42 °C. The deviations in the graph, in which the temperature drops to 30°C,

happened when the brooding female went out to eat. With the same Data Logger, it was possible to identify pairs that were not sitting on the eggs properly: in this case, the graph showed a different incubating pattern so obviously the chicks did not hatch.

Conclusion 1

Inside the nesting box few factors are relevant and important: the female laying the eggs on the nesting box floor, the female rolling the eggs with her beak, and the female body position changing above the eggs. All these factors enable the temperature changes inside the egg, and as a result - when the temperature increases, the fluid inside the egg expands and the air-cell shrinks.

While the temperature is decreasing this fluid shrinks and creates a low pressure inside the egg, which causes oxygen to penetrate through the porous eggshell to the blood strings attached to it, so that the embryo could get this oxygen and develop in the best possible way.

Humidity level

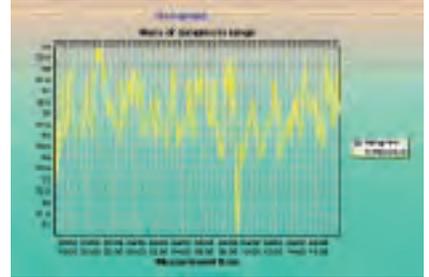
Another consensus between the breeders: In order to get better hatching results the humidity should be accurate and constant all the time. As done before, we must test the humidity level during the natural incubating process. According to well-known research, the ideal loss of egg weight during the incubation process is 15%± 3.

This loss of egg weight is affected by two factors:

1. *The Eggshell Thickness* - food with high levels of Calcium will cause the eggshell to be thicker, and an egg that was laid first- its eggshell would be thicker than the last egg that was laid. Eggs with a thicker eggshell will lose

less weight than eggs with thinner eggshells.

2. *The Humidity Percentage* - after the egg is laid the breeder has no influence on the first factor (the eggshell thickness) but he could change the



humidity percentage to affect the loss of the egg weight.

Parrots from different regions need different humidity percentages: the Amazons, the Macaws, or the Grey Africans from the Rain Forests need higher humidity than the Cockatoos, the Rosellas, or the Ring Necks from the dryer areas.

In addition, the humidity in the nesting box is not constant and it varies during the day and according to environmental conditions.

Conclusion 2

According to all that, it is very important to maintain an average humidity level and to follow the egg weight loss. During the breeding seasons the breeder learns from his incubating experience what the suitable humidity level for his parrots is. The humidity percentages are not necessarily equal at every breeding farm. If the breeder will pay attention to the egg rolling, to the temperature range between 35°C-39°C, and to the humidity level according to his environmental conditions, as explained before, he should get better results than natural breeding. ■

EDITORIAL Letter By: Ben Hoffman of the Predatory Bird Centre wrote on November 2005:

"I was recently asked by Mark Brown from the University Of KwaZulu-Natal, Pietermaritzberg Campus to evaluate the Inca 100 incubator. I am the manager of the largest raptor breeding facility in South Africa where I routinely incubate a number of bird of prey eggs, including a number of endangered species..."

...The Inca 100 is a small compact unit with a number of features that make it suitable for use by both the small and large scale aviculturists.

The robust PVC and glass construction is very easy to clean. The egg turning mechanism is functional, reliable and simple to operate. The same goes for the humidity system (It has a clever wet and dry thermometer attachment)...

...Overall the Inca performed well and I had the confidence in the unit to incubate Umbrella Cockatoo, Lanner Falcon as well as Pygmy Falcon eggs from fresh laid to hatch. I have no hesitation in recommending the Inca 100 incubator as a reliable, versatile and robust machine for both the amateur and professional breeder. "



DON'T WANT TO INCUBATE

Female parrots occasionally decide that motherhood is not their “cup of tea” so they are ignoring their eggs, neglecting or breaking them.

David Vishnia, a parrot breeder with many years of experience, was determined to find a better solution for these poor eggs.

After monitoring his parrots' behavior and conducting numerous tests and experiments he decided to use his engineering skills to develop an incubator that would overcome these “females' caprices” by imitating the natural incubating process as closely as possible.

For this mission, the crucial aspects of the incubation process were identified and were implemented in the incubator's design and construction.

For example, in order to simulate the manner in which the brooding female heats the eggs in nature, he developed an especially large surfaced heating element with a center mounted fan and located it above the eggs (rather than below them).

For the breeders' convenience he added a temperature controller with clear digital display. In order to emulate the brooding mother's way of rolling eggs, the eggs are positioned at the bottom of the incubator and are rolled periodically and automatically by an

automatic egg turning system to create temperature changes vital to the embryo development.

The level of humidity was also found to be an important factor in embryonic development and hatching. Therefore, the incubator design creates ideal humidity conditions for each bird species by opening or closing the water lid in the transparent water container located inside the incubator.

To measure the humidity, David Vishnia developed a wet & dry hygrometer especially for this incubator, which is a very reliable form of humidity measurement (see editorial letter below).

From a parrot lover's point of view, he wanted every breeder to feel like part of nature so he designed this Incubator with large transparent doors for monitoring egg development and

chick hatching. So even if they don't want to incubate... this unique incubator imitates the natural incubating process but with better hatching results.

Emulation of the natural heat, moisture and egg rolling conditions, combined with an elegant, convenient, easy to use design creates a highly efficient incubator, suitable for

every breeder, harnessing the natural incubating process for successful and productive breeding. ■



EDITORIAL Letter By:

Professor Amos Ar, Head of Zoology Department, from Tel Aviv University wrote On May 2005:

“David Vishnia's innovative ideas are as follows:

1. In the incubators built by D.M.P. Engineering, the heat is evenly and constantly spread throughout the incubator, so one can give up the “dry” thermometer and use only one thermometer - the “wet” one. In addition, Mr. Vishnia uses a very accurate Calibrate Thermometer, ± 0.1 °C, with a low heat capacity, which

achieves its thermal balance in a few seconds.

2. Above the red temperature scale is a blue scale showing pre-calculated Standard International charts of relative humidity at various temperatures. This saves time and effort for the user. In professional literature, such thermometers could be accurate $\pm 2\%$ relative humidity, this is the same accuracy for digital thermometers based on electric capacity. While checking at the incubating temperature range (35-39 °C), I realized that the temperature reading at the calibrate

scale in a “wet” thermometer only, could be changed in $1.5\% \pm$.

For example, if the humidity scale would calibrate for a temperature of 37 °C, this, approximately, would be the accurate reading around all incubating temperature at the above range. At the worst case, the deviation would be only $3.5\% \pm$.

This is a very high accuracy and it gives optimized humidity adjustment in the incubator for ideal weight loss in the eggs and therefore optimum hatching.”

Lories for Life



By Michelle Aubin

13 years ago, despite my fascination for companion parrots, I wasn't particularly drawn to acquiring lories, even if I believed they were the most beautiful birds of creation. At the zoo we have about 1,200 birds including 150 lories of different species and sub-species. Of course, I haven't always owned a zoo and that many lories, my passion started like many others, by acquiring one pet bird. Of course, I had all the prejudices that many passionate aviculturists had against lories: they were messy, had a short lifespan in captivity and they were fed a complicated diet of fruits and nectar. Nectar was very expensive and difficult to get and so... who would want a lory? Not me of course... that's when I met Joe.

Joe was the friend... of the father... of an aviculturist... of whom I was purchasing birds. I went to his house to buy Gouldian Finches. Strangely enough I came home with Gouldians, orchid plants and my very first lory! Joe was 82 and had been breeding lories for more than a decade. He had a young female rainbow green-naped lorikeet who was not paired and he convinced me that she was also a real parrot. He was feeding his lories with seeds, fruits and veggies, and a little bit of nectar. How unusual, surprisingly they actually bred on such a diet!

I was hooked. Since then, I've never stopped owning, buying and breeding lories. The more babies I raise, the more I like them. They have incredible personalities, have proven to become exquisite companions and they look fantastic.

They have always fascinated the avian community. The first book on Lories was written in 1896 by Sgt Myvart and since then many more have contributed to unveiling their classification, particular characteristics, health and maintenance requirements, breeding and behaviour.

Our zoo is located south of Montreal, in the province of Quebec, Canada. This is a cold region where parrots cannot be housed outdoors for more than 4 to 5 months at best. Housing that many lories inside is quite a challenge. The biggest part of our collection of 150 lories, consists of trichoglossus, better known as Rainbow lories (all rainbows are commonly called lorikeets). Of the nine sub-species, I have the pleasure of having six in our breeding and exhibit collection.

If I were to evaluate the contributing factors of our success with lories and our colonies of lories, it would be primarily linked to the diet offered, to which I have a different approach than most breeders and companion owners.

Rainbow naped-lorikeets



Goldie lorikeets chicks



Alternative Diet

For the past decade, supported by bi-annual veterinary health exams and successful breeding, parent rearing and chick growth parameters, we have offered our lories an alternative diet regime that has contributed to provide excellent health for our Lories. Let's consider an alternative dietary regime than the traditional lory diet promoted to our companion birds. I do believe that lories are true psittacines, meaning that they have a psittacine beak. If you have ever been bitten by a lory you would know what I'm talking about! Although they are not devoted sculptors like cockatoos, they can inflict serious damages to those window sills and antique furniture! Having been conceived with such a beak it is logical to believe that they don't need all that purchase. They need, like all psittacines, to exercise and grind their beaks.

The basic diet offered to our collection for the past 10 years consists of 75% of a high



whole. Fruits are given whole or cut in half only. Undoubtedly the lorikeets make a mess of them, but nothing that my macaws can't match! The name of the game is "work for your food". It has a therapeutic effect: if you are busy, you are not bored, and holding a corn on the cob is hard work and it keeps them busy for quite a while. I personally do

not favour beans as they spoil rapidly and are quite smelly, but I do add rice and hard boiled eggs to their diet occasionally.

I do believe that the key to a proper diet of fresh produce is in the variety, as they all have different nutritional potential. Never give refined sugar to lorikeets. It is harmful to

quality formulated diet. We use Tropicana Maintenance extruded granules, and 25% of mixed fruits and vegetables. To vary the menu, we occasionally mix dry lory powder with the pellets.

The lorikeets who are not in a breeding situation are offered nectar every third day. The pairs set up for breeding get nectar 6 days a week, offered only at the end of the afternoon. They never get their nectar in the morning, only once their fruits and vegetables have been eaten.

We give them a varied diet of fresh fruits and vegetables: corn (maïs) on the cob, carrots, beets, lettuce and apples etc. Carrots and beets are shredded finely, being too big and too hard to be given whole, but corn is given



their digestive system and can get contaminated quite rapidly by harmful bacteria. Honey can be given sparingly but we never do. I prefer giving them maple syrup as it is rich in vitamins and minerals. It is mainly added in winter when the fruits are not as ripe and tasty. It can be quite a challenge, in winter to provide a good variety of fruits that they'll like, but let's not forget that fresh produce only represents 25% of their total diet and 75% should be an optimum quality pellet.

I don't believe in giving them fruit juice, even in a pet situation. They have all the strength necessary to crush, mash and eat tear fruits. When I hear from dedicated pet owners 'my lorikeet loves to bathe in his orange juice', I cannot help but feel sorry for that bird. His diet is greatly misunderstood. Too much sugar is often a problem with pet lorikeets. It's not good for their health and often creates a problem of aggression. Pets cannot spend all the energy they consume. In the past we made the experience with a few of our trichoglossus that we fed mostly nectar. After a few weeks, they became biters and screamers. They became aggressive and even attacked us. Once put back on a proper diet for a few weeks, that type of behaviour subsided and they regained their normal character. They simply stopped being biters and screamers. As a refuge we are often contacted to consult with parrot owners, and we have for the past years been inundated with lorikeet owners that are having difficulties dealing with undesirable behaviors from their companions. Too often these pets are offered too much nectar and lack undisturbed quality sleep. Not surprising they behave like children after the Holiday season!

We could talk about diet for weeks, but let just add that as a side dish, lorikeets are offered an insectivorous dry mix. Why? In nature, lorikeets are opportunistic eaters. They eat buds, flowers, leaves, worms, maggots, pollen, nectar ... yes indeed, some lorikeets love live insects. I have a pair of Goldie lorikeets that are housed in a mixed flight with mainly small insectivorous birds, Pekin robins, tangara, etc... And guess who's always the first to get to the bowl of meal worms... a Goldie and only beating the Red lory by a fraction of a second. It is most interesting to observe a Red lory tracking, catching and eating crickets, and quite frustrating for the Pekin Robins. So why deprive them of live insects? And so they are also offered meal worms and crickets. It doesn't become their main staple diet, but a secondary source of proteins and calcium as the crickets are powder coated in calcium before being let loose in the flight.

Housing Accommodations

The flight designs and colony housing of our lorikeets has also contributed to facilitate

their care. During the winter season, I set up between 10 to 20 pairs of trichoglossus in breeding flights. Each pair is housed in a separate flight where they can't see their immediate neighbours but they can see birds from across the aisle. Babies are mostly hand raised but some are left with their parents, fledge and are introduced back into the flock when the summer season arrives. The birds adapt well to the change from individual pair breeding to colony life, perhaps this is due to the fact that it mimics their life in the wild.

Our largest colony consists of a flock of 75 trichoglossus, better known as 'Rainbow Lorikeets'. These are exhibited in an interactive flight at the Granby Zoo during the summer months. The building is 100 ft long, 30 ft wide and 12 ft high with a sun roof and stainless steel sidings. Visitors can enjoy the direct interaction with the birds and can lure them to drink from a cup of nectar. Yes, in summer time they get to drink a lot of it, but they need higher caloric energy to exercise a plenty whilst flying around this vast flight, attentively identifying the novel visitor that has just purchased a fresh cup of nectar. We all know that working with the public, requires a lot of energy and let's be truthful here... they take their job seriously!

Modification to the design of the interactive flight has now allowed us to integrate a 10 feet wide section reserved for the dormitory and 'cafeteria' for the lorikeets.

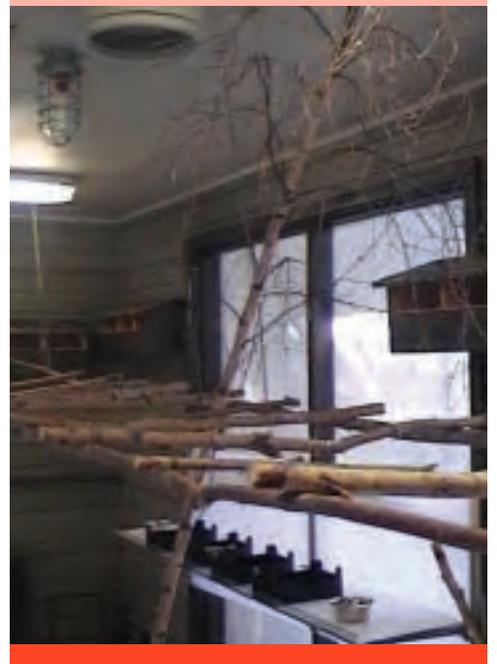
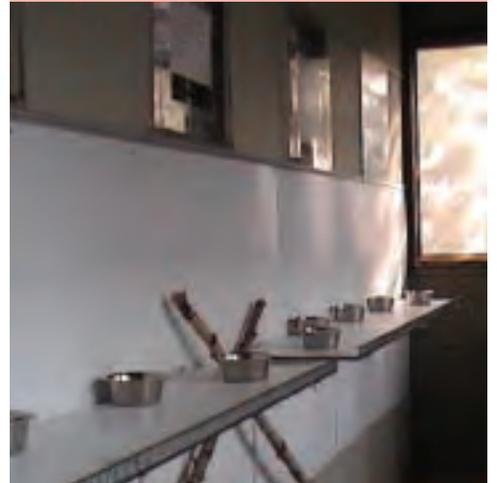
Numerous health monitoring and husbandry reasons prompted the addition of this new section. The flock was trained to go back to their 'dormitory-cafeteria' every night. That's where they eat their pellets and fresh food, and spend the night. That way, cleaning the large flight and changing perches and trees is a breeze. No danger to the birds and no chance of escape. As our climate is at best unpredictable, that section has an independent heating system.

Getting the lorikeets in a smaller enclosure also facilitates routine health checks. Weighing, nail trimmings and general check up are performed directly in that small room. If a lorikeet needs treatment or a period of recovery after a minor incident, he will be housed in a cage in that same room. That way, he remains part of the flock. When he has fully recovered, he will be released in the morning when we open the doors to the main flight.

In this 'dormitory-cafeteria' all the food and water bowls are placed at the same level. The perches and the roosting niche are also all on the same level. That eliminates a lot of discussions for the highest and best perch and best located food bowl... It is of the utmost

importance that there is no nesting spots available in there as well as the main flight.

Since we started the practice of having them sleep and eat in separate quarters, I think that they are more relaxed and happier. It is fun to look at them knocking on their small doors. Yes, they really do knock on the doors with their beak when we start taking the fresh food in, at the end of the day.



In September, they come back to our zoo and are introduced into a mixed colony outdoor flight of small and medium size parrots.

This outdoor flight is about the same size as the one at the Granby zoo, but they have to share it with many birds of different species. Lorikeets do well with other parrots but not with all species. They are not the ones who attack but the ones who are attacked. They will stay outside until the weather permits, which is usually around mid October.

They are then taken indoors for the winter



season. To house such a large colony of lorikeets is a challenge. They have an indoor aviary specially designed for them. Before looking at their indoor installation, I would like to emphasize the point that we are very proud of that colony. Contrary to the popular belief, it is possible to have viable colonies of lorikeets. These birds have lived together all year round for the last 5 years in harmony. An accomplishment we take pride in at the zoo.

Special birds, special needs, special accommodations! The way they're fed, dictated the housing requirements and design. In their winter flight, we apply the same principles: all perches are at the same height and all the feeding stations are at the same level.

To minimize the work, my husband has devised very ingenious feeding 'stations'. The feeding stations are 10 feet long custom designed with cut drainage pipes, closed at one end by a valve connected to a sewer system. At the other end is a water line. To clean and disinfect, all you have to do is open the valves and then the water and everything left over goes down the drain! We have four of those: one for fresh drinking water, one for pellets, one for fresh foods and a smaller one for nectar or more water depending on their needs. Being made of white PVC used to carry potable water, they are easy to disinfect. It makes the maintenance easy and quite fun as you work with your arms, shoulders and head

full of inquisitive lorikeets. And as an added bonus, no lorikeet would think of nesting in those dishes as there's too much traffic on them.

I also have a smaller colony of Blue Streaked lorikeets. I've always been told that Blue Streaked lorikeets should be housed in individual pairs only as they do not tolerate other birds and are quite territorial. These Blue Streaked came from three different breeding stocks and I knew from the start that they did not have a successful breeding history. A few pairs had been egg eaters as well. Shortly after their arrival to the zoo as I didn't think that we were making progress and didn't like the way they were paired, I decided to put 10 of them in a 10 x 10 x 8 ft. flight on a different floor than the other lorikeets.

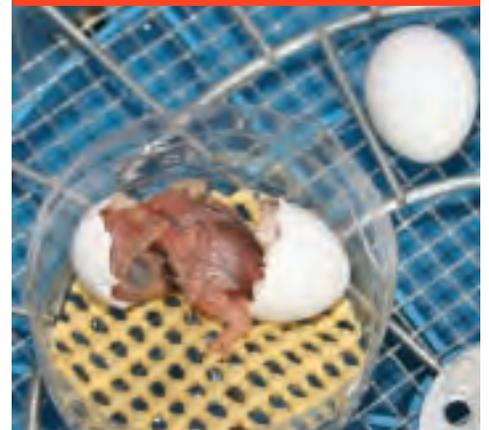
It was done with a different purpose than the colony of trichoglossus. I wanted to see how they selectively pair themselves up, given the opportunity. Surprisingly the community flight went so well that after a few months I decided to add nests. That was 3 years ago. Of those birds, I have lost only one, to illness, 2 years ago. Since then, the other 9 birds live together in harmony despite being left with an odd number of individuals. When Mr. Jim Taylor, a well-known Lorie breeder, visited our zoo with the specific intent to see this colony, he said that he had to see it, to believe it. Our success has thus far limited itself to 1 chick hatched and raised in that colony even if we've had a few eggs.

Nonetheless, this small flock is a rewarding success as I firmly believe that these lorikeets have a better life flocking together.

For myself and all of us at the zoo, helping people better understand lorikeets is a top priority. Making them known as terrific pets is our goal. Lorikeets are more than gorgeous parrots, they are fantastic pets who can talk, play and live as interactive members in a family life, if only people would realize that they are parrots and not humming birds!

Michelle Aubin
Zoo D'oiseaux Exotique ICARE

Hatching Lorie; it will take 6 weeks before unveiling the fascinating colors of his plumage.



Acquisition and Breeding of the Major Mitchell Cockatoo

By Anthony Snell of International Parrots



There were neither consistent breeding successes nor a foundation of birds large enough to ensure long-term longevity of the species in Canada.

The Major Mitchell Cockatoo Project started with a phone call in the fall of 2003. It turned into a significant investment of time and resources that led to breeding successes never seen in Canadian Aviculture. If it were not for these people (my fiancée-Tasia, father-John, mother-Anne, sister-Joanna, brother-Daniel, Auntie-Sue, brother-in-law-Blaire, and close family friend-Kathy), I would have never been able to accomplish this acquisition.

Now at the age of 33, I have been breeding parrots since I was 11 years old. A hobby of a young boy turned into my dreams and goals of the future. I made an important decision in 2003 to follow these dreams and establish a credible breeding facility specializing in the propagation of uncommon, rare and endangered species. I wanted to bring new species to North American aviculture, establish strong bloodlines for the future, share my knowledge and experience with others and most importantly, make an impact in Aviculture.

The major mitchell or leadbeater cockatoo (*Cacatua leadbeateri*) is considered by many one of the most beautiful species of cockatoos. It is native to Australia and there is one subspecies (*Cacatua leadbeateri mollis*) in addition to the nominate species. This subspecies is rarely seen outside Australia and is distinguished mainly by the lack of yellow in the crest. Average size is 40 cm long with a weight of 400g. The male of this species does have a reputation of being an aggressor, so it's important to understand and recognize the signs of aggression before any fatal injuries occur to the female. Compared to other species of cockatoos, this species tends to be more shy and reserved. This is a quality in my opinion that is more favorable as a pet. Species like umbrella and moluccans have extremely demanding personalities, to the point that many develop destructive habits, like self-mutilation or screaming and are passed from home to home. The major Mitchell as a pet is a species that likes to be handled and cuddled, yet more independent.

The major Mitchell cockatoo has been in Canadian Aviculture for a number of years. Breeding successes are seldom and stock is limited and aging. There are odd single birds scattered throughout

the country and the odd pair here or there. There are neither consistent breeding successes nor a foundation of birds large enough to ensure long-term longevity of the species in Canada. This was always a species I dreamed of owning and breeding and now the time came to execute my goals.

The Search

I started my search mid year of 2003 in the US as I knew this species was bred successfully there and I could find the diversity of bloodlines. I made a telephone call to a world-known breeder, lecturer, Gloria Allen (Allen Aviaries based out of California). The phrase "timing is everything" really applied here as Gloria was retiring from breeding parrots and starting to sell-off her large collection of 300+ parrots. Over the course of 3-4 months, I reviewed the birds she had available and put together a group of parrots to purchase. This group of birds would be split into two shipments, one being appendix 11 species and the other being appendix 1 species.

I decided to complete the appendix 11 shipment first as the paperwork was less complex and the approval process could be completed faster. This group consisted of 33 birds, most of which were cockatoos. I agreed to purchase Gloria's complete collection of major Mitchell cockatoos which consisted of 8 pairs (4 proven pairs and 4 younger bonded pairs and one single male). Other species to be included were gang gang, red-tail black, and slender-bill cockatoos among a few eclectus pairs. The second shipment of appendix 11 species would consist mainly of large macaws-hyacinths, blue-throated, buffons and red-fronted.

Once a tentative agreement had been reached on paper, I made arrangements to fly to California and see the birds first-hand in the spring of 2004. This was an extremely valuable group of birds and I needed to see the breeding facilities and ensure that my investment was sound. After arriving back in Canada from the visit, I finalized all last minute changes and made a 25% deposit on the group.

With the deposit being made, it was the signal to start the ball rolling on both sides of the border. Gloria would complete the export application and I would complete an import permit and make quarantine arrangements. The US Fish and Wildlife handles all applications for the export of wildlife including parrots. The review process for this application would take 4-5 months alone.

Probably the most important aspect of the import was having a

proper quarantine facility. That is a location that meets all the criteria established by the CFIA (Canadian Food Inspection Agency) and a care-taker qualified and trust-worthy enough to manage it. This is a much bigger challenge than it appears. I needed a location that could house 33 medium/large parrots and someone that would. Before I had actually finalized the deal, I had tentatively made arrangements for a quarantine to be set-up approximately 50 km from my home. This quarantine would be located in the Fraser Valley.

Quarantine

The summer of 2004 was soon passing and the time-line was taking shape. The US export permit was expected soon when a wrench in the plans was thrown in. The Fraser Valley was experiencing problems with the Avian Flu within the commercial bird industry. This is not the same strain that has grabbed world attention in the last year, but still a serious concern. The discovery of this disease had huge implications on any issue involving birds. Even though the first case was discovered in February of 2004, it wasn't until the summer when the full impact was known and drastic measures employed. Over 20 million birds were destroyed and measures like restricting the movement of all birds within the Fraser Valley were acted upon. Since my quarantine was in the Fraser Valley and in a zone with restrictions, it would not be approved.

Finding the first quarantine was a challenge, now I was faced with the task again. After an exhaustive search, I found a location over 400 km away and in the Okanagan. It was actually at the home of my aunty and uncle. It had to be located outside the Fraser Valley and away from any commercial farms. I was not going to take any chances. The building was a garage attached to a house and it was a shell. Knowing that the birds would be housed there throughout the winter, improvements would have to be made to bring it up to standard. I discussed all the aspects of the quarantine with my aunty and made a final agreement. I agreed to cover all costs related to improving the garage in addition to the standard care and labor costs. I drove down to the quarantine location with my brother to complete all the renovations. This included clearing it, insulation, securing of windows and doors and the addition of further lighting and heating.

We completed this improvement over a weekend and left knowing a few minor tasks still need completing on the next visit. Even though it was insulated, my main concern was still security and heating. The heaters were having difficulty maintaining a steady temperature and the colder weather was still to come. I took final measurements of the garage as I had to design and build a caging system that would be installed at a later point in time. Over the next few weeks, my brother and I built a suspended cage system with two main sizes of cages being utilized, this being 2' wide x 3' high x 6' long for the pairs and 2' wide x 3' high x 3' long for any single birds. The gang gangs and red-tail blacks were the only two species that had cages built larger than the rest. I then applied for an import permit through the CFIA (Canadian Food Inspection Agency) and a quarantine inspection. I detailed the caging system on a layout and gave this to the inspector before the location was inspected. Due to the distance, time-line and other demands, it was decided to deliver the caging system at the same time the birds would be delivered. Since we made an earlier visit and pre-pared the location, had a group of people to help with delivery, the caging system could be installed relatively quickly.

I was now at the point where final preparations had to be made regarding the pick-up and delivery of the birds from California.

The birds had to stay in quarantine for a minimum of 45 days and be signed off by a CFIA official. While the birds were in quarantine, I started to make arrangements for their transport back to Vancouver and their set-up and husbandry in their future breeding facility.

Quarantine Release

Due to the size and value of the shipment, I decided to house the birds in a secondary facility after their quarantine was completed. I did not want to expose the shipment to any of my current birds as a pre-cautionary measure. One of the most important aspects of catching the birds both in California and in the quarantine was ensuring each bird was properly identified and recorded for proper partner placement. This was most important with the major mitchells as I had 17 of them and it was imperative that each was partnered up properly.

I paid close attention to the birds as the days followed to ensure all were settling down. I was more concerned with the black cockatoos and the one major mitchell with growth on its leg. Later in the week, I took this major mitchell to a well-respected avian vet where a series of tests were done. Everything came back clear and the mass was non-cancerous. Shortly afterwards, the bird went into surgery for the mass to be removed. It was a success and the bird recovered well.

Breeding Season-2005

The management and husbandry of the birds stayed pretty much routine through to the summer. The daily care and feeding of the birds was completed by my mother. I would routinely visit to observe them and make any necessary aviary improvements. Through the spring, I built a new set of aviaries so that I could set-up the major mitchells and one of the pairs of slender-bills for breeding. I could not set-up all the birds due to building size constraints and the size of the aviaries. I was not able to build the ideal size for each pair, but at least large enough to be considered adequate.

- Each aviary was 3' wide, 4' high and 12' long and again suspended 4' off the ground.
- Solid partitions were placed in between each aviary and the lighting position above was changed due to the placement of nest-boxes.
- Each nest box was 12" wide x 12" long x 30" high, completely lined with heavy gauge wire. Two pieces of pine were attached to the inside for chewing and the nest-hole was made 4.5" square. I also attached a secondary piece of pine that over-lapped the nest hole and 1" hole was cut. This would allow the pair to chew the nest entrance, acting as stimuli to the beginning of nesting activity without destroying the complete nest-box front
- All the birds were moved outside in their original quarantine cages. The new breeding aviaries were installed but I left the nest-boxes to the side. I wanted the birds to adjust before being set-up.
- As each pair of major mitchells were caught, each had their micro-chips scanned to confirm proper pairing and the males primary feathers were trimmed back. This species is considered one of the highest risk cockatoo species for male aggression on the female. During the whole quarantine process and the period that followed, 6 pairs of the major mitchells were already together. The additional two pairs and extra male were all separated. The males of these pairs had already started to show excessive aggression too early in the year and had to be separated to eliminate any possible injury to the female. All 6 pairs of major mitchells and the two females were moved into the new breeding aviaries. About two weeks later, the two males were partnered back with the females. At this point, the nest-boxes were hung on the initial 6 pairs. They were hung at the back of the aviary, opposite end to the food and water.

- The diet was pretty consistent throughout the whole year. A wide assorted seed mix with nuts, dried fruits and pulses along with 8 mixed fruits and vegetables, soaked pulses, and vitamin supplement (PRIME) were offered. Cuttlebone and spray-millet was also offered

daily. Pine nuts and almonds were also added to their diet but not fed on a daily basis.

• Approximately 4 weeks after the first 6 pairs had been given their nest-boxes, the last two pairs were given theirs. As time went on, all the pairs had entered their nest-box and started to chew the nest-holes. Two pairs had been observed copulating. My goal with this species was to produce a balance of hand-raised and parent-raised babies. I knew the latter would be a challenge. Previously, none of the birds were given the opportunity to incubate or raise their young, all chicks were incubator raised. I needed to prepare my nursery equipment and ensure I was ready. I ordered 4 parrot brooders from Avian Pediatrics and 2 Grumbach incubators. One would be used for the general incubation and the other would be used for the hatching phase. I also purchased one portable brooder as the birds were kept in a secondary location and it could be extremely useful.

September had arrived and upon a routine nest inspection, one pair of major mitchells had laid an egg. Two days later a second egg was found and this was the last one for this clutch. This was the only pair of major mitchells to actually nest for the 2005 season. Not knowing the individual breeding history of each pair and their nesting habits, I proceeded with care. The nest-box was inspected every two days and the behavior of the adults was watched carefully. After about 10 days of incubation, I candled the eggs and determined both to be fertile. The pair was incubating well, so I decided to leave the eggs with them for a little longer. Generally, hatching success is higher if the eggs are left with the parents to incubate for a period of time as opposed to pulling them as soon as they are laid. Both incubators were turned on and their temperature, humidity and turning settings completed. The general incubator was set to turn the eggs 6 times a day, once every 4 hours. The humidity was set around 45%-50% and the temperature to 37.2 degrees Celsius. The hatching incubator had the turning trays removed as no egg turning is required. Temperature was set slightly lower to 36.8 degrees Celsius and humidity to 75%-80%. This was monitored over three weeks to ensure all settings were stabilized. Having top quality equipment is great, but its useless in-case of a power failure. I purchased a power-failure alarm system. It connects to your phone system and will dial up to three different telephone numbers in addition to emitting an alarm in case the power fails. I also purchased a gas generator and power cords that could power all nursery equipment if a secondary source of power is needed.

I removed the two eggs about a week short of their hatch date. Both eggs were carefully removed and maintained in the same position as found in the nest. Both were placed into a dish filled with seed and positioned half in/half out. The dish was then placed into my portable brooder and transported by vehicle back to my home and nursery. Both eggs were dipped into a sanitization solution and placed in the main incubator. The typical incubation period for this species is 24-26 days. About 5 days before the expected hatch date, the egg dynamics started to change visually. Drawdown was starting to occur which is the shift of the air-cell within the egg. This shift continued over the next 48 hours. I candled the egg and it was evident that the chick had broken through the inner membrane. Once this had been detected, it was time to move the egg to the hatcher. It was placed in a small plastic

dish, lined with tissue paper and the egg was placed inside with the larger portion of the air-cell facing the top. Within the next 24 hours, a small chip in the egg could be seen. Over the next 48-72 hours, the chick continued to chip away around the egg. Placing the egg to the ear, it was easy to hear the chick making noise and tapping on the egg.



At any point the first egg was going to hatch. The second egg had already started the hatching phase and was being monitored. On schedule, the first chick broke away from the egg and appeared to be healthy. I left the chick in the hatcher for the next 6 hours. At this point, I removed him and cleaned his umbilical cord with a (SOLUTION). The chick weighed 11g and it was fed an electrolyte solution. Once fed, he was moved to one of the brooders. Actually, for the first 24 hours, this solution is fed exclusively every 1.5 hours until 2:00 a.m. and again starting at 6:00 a.m. One of the most important things in hand-feeding a newly hatched chick is re-hydration. After the first 24 hours, I mixed my hand-feeding formulae with the electrolyte solution. Over the next week, the electrolyte solution was replaced with distilled water in a higher ratio as the week progressed. The second chick hatched on schedule, but died three days later to aspiration. I won't go into detail about the remainder of the hand-feeding as there are many books available that discuss the topic well. By December, the baby was pretty much weaned and ready to go to its new home.

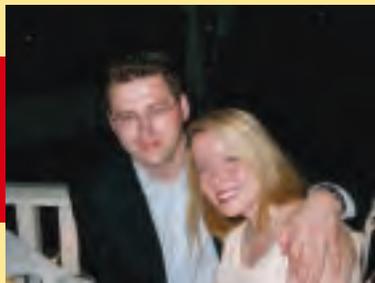
My attention now focused back on the breeding pairs. One baby was great for 2005, but really a small step in the breeding program. I removed all the nest-boxes and started to observe the behavior more of the pairs. My mother had also spent many hours of observation and took notes of each pair's daily behavior. Even though the original breeder had written out all the birds and how they were partnered up, I felt that a mistake had been made in the beginning. When the original breeder was catching the birds and placing them into their kennels, they were being scanned and their micro-chip numbers were written on-top of the kennels. A number of the kennels had micro-chip numbers written and scratched through due to being changed. At the time, I thought it was a simple recording error and in the end, all the birds were recorded properly. After observing the pairs, it was clear that some of the birds were more interested in the partners in adjacent cages. Not an aggression attention, but an affectionate attraction. While the nest-boxes were off, two pairs had their partners switched and immediately, it was a "SOAP OPERA". Both pairs were in heaven. They were displaying and making gentle twitter noises to each other. If any group of parrots show their bond of love, cockatoos are right up there.

Breeding: Season-2006

It was now February, 2006 and the nest-boxes were placed back on the aviaries with new face plates added for chewing. The hours of light were slowly being increased as the daily temperatures gradually rose. The amount and variety of food was being

increased with the hopes that all these environmental changes would have a stimulating effect on the pairs. On May 10th I decided to pull the first clutches of eggs to artificially incubate them. I removed eleven eggs (8 major-mitchell eggs and 3 slender-bill eggs). I candled them shortly afterwards and found all the major mitchell eggs to be fertile. Long-story short, all three eggs hatched from the first pair. Both eggs hatched on the second pair, but again, the second chick died from aspiration. The three eggs from the third pair were all fertile, but had development problems and died within the shell. I had reservations about these eggs when I pulled them as they were cold to the touch and scattered throughout the box. Four babies were successfully raised from this round.

On May 22, I had a great birthday gift. Pair number 1 & 2 had both laid the first egg of their second clutch. Both pairs laid a clutch of 3 eggs and all were fertile except one egg from pair number 2. This was the pair that laid in 2005 and had a clutch earlier in the year. All five babies went on to hatch and were raised successfully. At one point, I had nine babies in the hand-feeding process. Blood was taken from all once feathered and sent away for DNA sexing. The eight oldest chicks were all females and the last one was a male. Back in the aviary, one of the pairs was giving me some concern. It was actually one of the pairs that were broken up at the beginning due to the male's aggression. I removed the male and nest-box to give both birds a break. The female was stressed and a few feathers had been pulled. Luckily, my mother caught this in time. I gave them a break of one month and placed the male back with her. Approximately 5 days later, I got a call I didn't want to hear. The male had severely attacked the female. I immediately went to the aviary and found a bloody cage. The male had attempted to rip the female's beak off. I caught her and cleaned her up. She was beaten up with all the damage occurring on her beak. She had a hole chewed completely the way through. She has now healed, but shows the scars. The male will remain single and not be placed with another female. This pair had been together for a decade without problems, but now, he had crossed the line of aggression. The female is doing well and maybe paired again in the future, possibly with the extra male I originally imported. For now, the 2007 season will start with 7 pairs.



Anthony Snell
and wife Barbara Snell

The Hagen Avicultural Research Institute

UPDATE continued from page 23



Quality Control Facility

- The HARI facility is an active participant in the ongoing quality control of the extruded Tropicana product line. Following the initial approval from the extrusion feed division quality control laboratory, every lot manufactured is tested exclusively on the breeding colony for several weeks prior to being released. Palatability, consistency, droppings of the birds that are testing the specific lot and weight management are some of the parameters monitored by the staff. The Tropicana Feeding Formula is fed exclusively to our chicks in the nursery. Optimum growth and health parameters are necessary for the release of the tested lot.
- Product development assistance for Rolf C. Hagen Inc. avian product division



Contributions for Avicultural Advancement Research

- Research on nursery management which has indicated the successful ability to raise day one chicks providing the optimal environmental temperature and humidity (as demonstrated with our custom made "aqua brooders") is maintained, in combination with the feeding of optimum neonatal formulas.
- Ongoing quest to refine assisted hatch techniques. Avant-garde natural and holistic approach to first aid and supportive care for our breeding colony and neonates are continuously researched, documented and all data compiled for future educational DVD compilations.
- Caloric energy requirements compared to food intake – relating to obesity for Double Yellow Headed Amazons.
- Comparing feather structure and pigmentation with commercial seed based diet to our extruded based diet.

Education

- Retail support for the pet industry and aviculturists by presenting avian seminars nationwide on avian husbandry recommendations, health preoccupation and assessment and management and trends in nutrition.
- Veterinarian technician internships at HARI contribute to gaining hands on experience. Mark Hagen attends numerous conferences for avicultural advancements and recently the International Parrot Nutrition Conference where the University of Hanover presented their research data testing vitamin K3 levels that proved to be safe for birds as well as numerous other research topics pertaining to nutrition.
- HARI's veterinarian technician presented "Advancements in Nursery Managements", at the Aves Convention 2007 in Australia.
- Presentations from the HARI team to local schools contribute to conservation awareness and responsible caretaking of birds in captivity.



Pedro (Green-Winged Macaw) and Tasha (Yellow-Napped Amazon) are both year old fledglings that are used for education until they are old enough to breed.

- Continued support for the Canadian Parrot Conference, World Parrot Trust and The Loro Parque Foundation with major donations for ongoing conservation programs

MAKING YOUR FIREPLACE MORE ECOLOGICAL AND BIRD FRIENDLY

NOW THAT YOU'RE A BIRD FRIENDLY COFFEE DRINKER LET'S TALK ABOUT MAKING YOUR FIREPLACE MORE ECOLOGIC AND BIRD FRIENDLY TOO.

FACTS AND FIGURES:

- In Canada, residential use of wood as an heating source is responsible for 29 % of small particles associated with human activities , making it the third most important source altogether.
- Smoke from wood hold more then 100 pollutants that are harmful for the environment and that are also at the source of a great variety of human health problems, so imagine what it can do to your birds!
- Wood heating contributes to the winter smog. In fact in rural areas where many households use wood as a main source of heating the quality of air can be poorer than that of a big urban center like Montreal or Detroit.
- A traditional wood stove that works for 9 hours emits as much particles

in the atmosphere as a certified wood stove that works for 60 hours or than a standard car that runs for 18 000 km.

SOME OF THE PRINCIPALS POLLUTANTS PRODUCE BY WOOD HEATING:

- particles
- Carbon monoxyde (CO)
- Volatils organics composés (COV)
- hydrocarbures aromatiques polycycliques (HAP)
- Azote oxydes (NOx)
- dioxines and furannes

OUR OPINION: It's bird friendly in 2 ways:

- First, you do not contribute to deforestation by using conventional wood. After all let's not forget that this is birds' worst enemy!

SO WE TRIED AND TESTED ALTERNATIVE PRODUCTS FOR YOU, HERE ARE THE RESULTS:

NAME AND BRAND	PRICE OR COMPARISON TO WOOD \$	BURNING TIME PER LOG	ODOUR	USE	AVAILABILITY	COMPOSITION	CARBON MONOXIDE & OTHER POLLUTANT EMITTED	ALL IN ALL CONSERVATION ASPECT
Java Log™ 25% more energy than wood and triple the flame per unit of energy	about \$3 to \$5 per log	2-3 Hours. excellent heating quality	A faint smell of coffee	Open fire place only	In most hardware stores and supermarkets	Coffee residue	96% less residue after combustion 31% less particulate matter 85% less carbon monoxide	Less landfill waste, saves trees, and recycle something that would have gone to waste
Fire-log Duraflame™ Northland™ Etc.	From \$2 to \$5 depending on the size: 3 lb or 5 lb per log and the type: Duraflame make the crackleflame log which makes wood burning crackling and the easytime colourlog that burns with lots of colors.	2-6 hours	Some brand smell a bit like paraffin while others have no odours	Open fire place only	In most hardware stores and supermarkets	Made of sawdust and wax (the crackleflame also has some seeds for crackling noises and the easytime colourlog has a copper-base coloring agent.	73% less Particulates matter 87% lower opacity 88% less carbon monoxide 66% less creosote accumulation	They are held together with paraffin which is made from petroleum and can let out carcinogenic fumes. But all in all they are made with recycled wood residue that would be lost anyway. So when used in accordance with the manufacturer recommendation they are quite safe.
Switchfire Log.™	Round, 4-inch diameter, 12 inches long, 5 pounds each.	Lean-burning, long-lasting, slow burning time.	The log emits a pleasant earthy smell.	Open fire place only	Through internet E-mail: info@farmedfuels.com Web Site: www.farmedfuels.com	Over 50 % is comprised of soy products and the remaining portion is switchgrass.	Info not available	Renewable fuel source. (the wax burns off and does not leave a residue in your fireplace). The Switchfire log is made entirely from materials that can be grown and replaced in a single season. While it can't exactly duplicate the burning of firewood.
Energy-log Or fire-log.	Octagonal, it is easier to position when you light your fire Perforated in the center, it allows the flame to circulate better and it favours maximum heat (for Eco-logic™ logs)	30% more heat than natural wood	We did not smell anything	All types of fire places	Most hardware stores and supermarkets (Eco-logic™ for Quebec and Ontario see web-site for distributors: www.eco-logic.ca	Made from hardwood floor sawdust and compressed with a special machine so they don't require any paraffin.	69% fewer particulates 88% less carbon monoxide, and was 50% less opaque than cordwood smoke	Only 7% humidity per package (natural wood: 25 à 30%). 100% natural without any additives like paraffin or tar. Can be used in all kind of stove; fireplace, slow combustion stove, exterior fireplace and BBQ. denser and more difficult to ignite, but burn much longer and hotter than their decorative counterparts

- Second, emissions from wood burning inside your house are very toxic and harmful for you, your family and even more so for you birds. Remember that their respiratory system is more fragile and complex than ours.
- Unfortunately every year beloved avian companions are lost due to toxic emissions generated from wood burning fireplaces.

Our favourites:

#1 - The Java-log: it produces good heating, nice subtle smell, is affordable and very eco friendly.

#2 - The Eco-logic log: it has no toxic additive and compare well to the Javalog in the pollution department. But what makes it a winner is that it can be used as much by the recreational fire burning as the people who are using fire heating as a main source of heating since you can buy it in bulk and could well be less expensive then buying wood cords.

#3 - We would have liked to test the Switchfire-log but we could not find it in any store and their web site was under construction consequently we don't have that much information about it. But, nonetheless, we think it seems like a good eco-friendly product.

- Although we are worried that, should it become really popular, the harvesting of soy needed to produce it could become more an environmental problem then a solution. Soy harvesting is becoming a controversial subject that we will tackle in one of our future issue.

CONCLUSION:

- All these products are good product since they are either made with throw away parts of something we are already using in bulk quantity, or with a renewable safe product as is the Switchfire-log.
- The goal here is to do whatever we can to reduce deforestation.
- NEVER FORGET: Deforestation is bird's worst enemy!

TIPS AND QUESTIONS:

- Most of the manufactured logs are designed to be used only in open fireplaces and then, only one at a time. They are made using wax, which could cause a lot of problems if burned without enough air.
- All wood, whether in log form or as sawdust, contains about 9000 BTU per pound when absolutely dry. Typical cordwood's, when seasoned for a year, contain about 20 percent moisture by weight.
- Fire-logs, which are kiln dried, contain about 10 percent moisture by weight. Since it takes heat to boil off the moisture in the wood before it can burn, less moisture means more heat.
- Given equal weights of cordwood and fire-logs, the fire-logs will produce more heat when burned.

Q - Are fire-logs more economical than cordwood? \$

ANSWER:

- That depends on whether you cut and split your own wood or you buy it pre-cut. If you cut and split your own wood, the fire-logs will definitely be more expensive.
- If you buy your firewood, depending on the price you pay per cord, how dry the wood is and what species of wood you buy, you might actually get more heat for the dollar by burning fire-logs.
- Remember, a cord measurement is one of space, 144 cubic feet (128 cubic feet in Canada), not density or weight.
- While a cord may cost less than a ton of fire-logs, it may not weigh as much or the weight may be water not wood.

PLEASE NOTE: Toasting marshmallows over EasyTime Colourlog or any firelog is not recommended.

Of course you must, at all time, have a good quality carbon monoxide detector installed in your home. Moreover be sure the batteries are loaded and that your detector is functioning right!

Continuing EDUCATION



Fundamentals of Aviculture

The American Federation of Aviculture, Inc., presents its eagerly anticipated online course, Fundamentals of Aviculture, made possible by a grant from Pet Care Trust, with additional support from the Schubot Bird Health Center and the Veterinary College of Texas A&M University. These courses are developed through AFA's Education Committee, chaired by Dr. Benny Galloway.

Rick Jordan, author, lecturer and AFA's CITES representative, wrote the first eight chapters of the course. Rick's other publications include the books "Parrot Incubation Procedures," "Parrots: Hand-feeding and Nursery Management," "African Parrots," and "Macaws as Pet and Aviary Birds," the video "Incubation and Hatching" and numerous articles in scientific and pet trade journals.

Chapter nine, "Parrot Behavior," was written by Barbara Heidenreich, known for her Good Bird! magazine, and her books, "Good Bird! A Guide to Solving Behavioral Problems in Companion Parrots" and "The Parrot Problem Solver" Barbara holds a degree in zoology and has been a professional in the field of animal training since 1990. She provides consultation services to zoos and free-flight programs and offers Parrot Behavior and Training workshops.

Artist Lyrae Perry provided original anatomical illustrations.

The course is to be followed at the user's desired pace, with a quiz at the end of each of the nine chapters. Successful applicants are acknowledged as AFA Certified Aviculturists, Level I. This introductory course is a prerequisite for the more in-depth courses now being prepared.

The American Federation of Aviculture, Inc., was established in 1974, with the mission of educating the public about keeping and breeding birds in captivity. Each year the AFA convention draws hundreds of aviculturists together to attend presentations by avian veterinarians, commercial and hobbyist bird-breeders, bird trainers, and those involved with zoo and conservation projects.

AFA also awards individuals for outstanding achievements in aviculture and funds conservation and research grants.

Register for the Fundamentals of Aviculture course at:

<http://www.fundamentalsofaviculture.com/FOAcourse>
<<http://www.fundamentalsofaviculture.com/FOAcourse>

~ IN THE NEWS ~

TAMBOPATA - CANDAMO (PERU)

A NATURAL WONDER OF THE WORLD, IS THREATENED BY THE PERUVIAN GOVERNMENT'S INTENTION OF OPENING IT UP TO OIL AND GAS EXPLOITATION

• The Bahuaja Sonene Nacional Park, where the Tambopata Candamo River Basin is located, was declared one of the world's seven iconic sanctuaries.

• Free Trade Agreement with the US could be endangered by measure.

Representatives of numerous Peruvian and international organizations are deeply concerned about the effects of a legal amendment proposed to the Ministers Council on September 25, 2007. The amendment aims to reduce the Bahuaja Sonene National Park by 209,000 hectares (516,000 acres) and open it to oil and gas exploration. The area at risk is an uninhabited and pristine tract of rainforest in the Candamo and Tambopata basins, home to record numbers of plant and animal species.

If the Peruvian Congress approves this amendment, one of the world's most biologically diverse and intact rainforests will be threatened. In political realms, Peru's significant progress towards signing a Free Trade Agreement with the United States will also be at risk.

Candamo is a rainforest wilderness of globally recognized conservation importance and beauty. It is an area of the Bahuaja National Park that has been classified as a "strictly protected zone" because it is both extremely vulnerable and unique in the world. Without Candamo, the huge Tambopata Candamo National Reserve / Bahuaja Sonene National Park complex will lose the very impetus of their creation as protected areas.

The Bahuaja Sonene Park comprises 1,092,142 hectares of lowland and montane rainforest. The National Geographic Society declared it one of the world's seven "iconic natural sanctuaries." It was set aside as a park because it is one of the planet's most intact rainforests and it is a sanctuary for unprecedented numbers of species and natural habitats. It is a land of tapirs, jaguars, peccaries, and macaws-many of which are practically tame, as the area has not been hunted in decades

The park is part of vast continuum of protected areas, including the adjacent Tambopata

National Reserve, one of Peru's main natural tourism attractions, and Madidi National Park, directly across the border in Bolivia. Both protect the headwaters of the Madeira River, the most extensive tributary of the Amazon. The park is also vital to the well being of over 50,000 inhabitants in Puerto Maldonado and the surrounding indigenous and ribereño communities who depend on the purity of the water and the rich sediment it carries from the Andes down through Candamo's uninhabited basin. That is another fundamental reason for its strictly protected status.

The proposal to reduce the size of the National Park undermines our legal environmental framework. The Peruvian State is legally mandated to promote the conservation of national protected areas, as stated in Article 68 of Peru's constitution. Furthermore, Peru has subscribed the Convention on Biological Diversity, which commits member states to strengthening protected areas.



The proposed amendment threatens the approval of the Free Trade Agreement that is being negotiated between the governments of Peru and the United States. It directly contradicts some of the commitments established therein, such as article 18.3, paragraph 2, of Chapter 18 on the environment, which states it is inappropriate to promote commerce and investment by weakening or reducing protection contemplated in the environmental legislation of the sides. Finally, number 14, defines environmental legislation, as any law or regulation which has the principal purpose of protecting the environment or preventing threats to human, animal or plant life or wellbeing, through the conservation of wildlife, including endangered species, their habitat, and natural areas under special protection.

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