

# AWI PARROTS

## worldwide



Interview with  
**Anton Vaidl**  
Parrot breeding  
in Prague  
Zoo

Gerhard Hinz's Red-headed Lovebirds  
Rosemary Low: Tips from 50 Years of Parrot Breeding

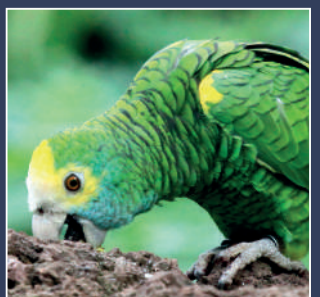
Loro Parque Fundación breeding tip



Successful breeding of *Chamosyna rubronotata*

Avian vet advice ► Egg binding in parrots

Bärbel Köhler: White-bellied Parrots as breeding pets



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# AWIPARROTS

worldwide

## Editorial

*Why do we publish people and parrots on some covers of our magazines? The answer is simple. Because in the fields we write about – responsible parrot breeding, conservation, avian medicine, or pet-keeping, parrots and people belong together.*



**Dear parrot breeders and friends!**

**One idea became a reality this March. Let me introduce you to the new digital magazine AWIPARROTS. As it's not possible to meet each other personally at the moment, I thought the right time has come and it will be nice to meet you here on the magazine pages every month.**

Actually, this is one of the missions...

To connect people with the same interest.

**Psittaciformes.** The aim is to publish personal breeders and pet owners' experiences, as well as information written by avian vets in a very understandable way. The available results of researches will be mentioned, and you will find here information about the activities of foundations and successes in the conservation projects. Mutations are a controversial topic, but we find it interesting to also deal with the genetic problematics.

One could think that everything has already been written. However, the experience from my twenty years of praxis in parrot journalism and meeting with many parrot breeders, convinced me that even the very knowledgeable breeders can learn and want to learn every day. Even if there is one sentence in the whole magazine that helps, then it was worth reading.

So this is what our pleasure is – to inform, to inspire, to provide knowledge through the published words. All of this in a highly ethical way. It is necessary to take the eventual advice as a recommendation, because what works at one parrot breeder or pet keeper does not necessarily work at another one.

The whole background story on AWIPARROTS will be published in the next issue (April 3). I approach the new magazine with the utmost modesty and respect to all of you – the readers, and will be very happy for your feedback. Especially when we are at the very beginning. We like to work in a friendly atmosphere, and if you would like to join and publish your experience, we are open to cooperation.

I am looking forward to meeting you here!

  
Alena Winner  
publisher



# MARCH 2021

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**MARCH 2021**

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# Is it difficult to breed

By Gerhard Hinz

# RED-HEADED LOVEBIRDS?



Gerhard Hinz from Germany is passionate about all animals in his house and breeding facility.

**A**fter a very long time, I decided to acquire a 1.5 year old pair in March 2019. I must admit that besides other reasons, my decision was based on the fact that many breeders are literally afraid of this type of lovebird due to the demands, specific conditions, and alleged difficulty of the breeding itself. Thus I thought it would be a challenge.

I had Red-headed Lovebirds (*Agapornis pullarius*) in my aviaries as far back as in the 1980s. However, I then started to specialize in breeding lories, lorikeets, and large species of parrots, giving up lovebirds for a while. I breed, for example, blue-crowned lorikeet (*Vini australis*), collared lory (*Phigys solitarius*), Major Mitchell's cockatoo (*Lophochroa leadbeateri*) and other species. Nevertheless, thanks to a friend from the Netherlands, red-headed lovebirds have never got out of my sight, fascinating me all these years.

Gerhard Hinz's Red-headed Lovebirds live in the aviary heated to 22-24 °C.

Being 14-15 cm long, the Red-headed Lovebird is the second smallest representative of lovebirds after the Grey-headed Lovebird (*Agapornis canus*). The basic colour of its plumage is green. Males have orange-red feathers on their cheeks, forehead, and the upper part of the head. They also have black-coloured lower wing coverts, as opposed to females whose lower wing coverts are green-yellow. Overall, females are slightly paler than males.

The Red-headed Lovebird is a very pleasant lovebird and also very active in large aviaries; hence in my opinion, it's important to give this species more space, even though it's quite a small parrot. I regularly put fresh branches of hazel in the aviaries, which the lovebirds love to nibble on, making chirping sounds at the same time.

Since I disapprove of breeding lovebirds in small cages on principle and consider it bad, my lovebirds are placed in an aviary measuring 2.20 × 1.35 × 2 m (length, width, height). The room where the aviary is located is heated to 22-24 °C, with a stable humidity of 65%.

All year-round high temperature is a must, as the Red-headed Lovebird is very sensitive to this condition. The aviary is equipped with full-spectrum fluorescent lamps simulating daylight (the light colour code is 965).

In the wild, these lovebirds nest in termite mounds, where they form deep corridors, at the end of which they dig a nest. To simulate the natural conditions as much as possible, I made special nest boxes.

I placed two boxes in the aviary for the lovebirds to choose which one would suit them. The dimensions of the first nest box are 25 × 20 × 20 cm (length, width, height) and of the second one are 50 × 25 × 25 cm. I completely filled the nest boxes up to the ceiling with non-hazardous 4-centimeter thick cork boards. Cork is a perfect material for lovebirds, in which to easily dig a nest.



Gerhard placed two boxes in the aviary for lovebirds to choose which one would suit them.



© Gerhard Hinz



Regrettably, both nest boxes were initially ignored. After a while, I decided to move the red-headed lovebirds to another aviary, where they had no eye contact with other parrots.

In June and July, the lovebirds began to visit the larger nest box provided and vehemently formed a nest with their small beaks. Subsequently, the female nested.

On Thursday 8th August I couldn't resist it any longer and checked the nest box, finding four well-fed young ones there. I tried to let the lovebirds have peace and carried out another check on 25th August. The chicks still grew well and thrived. On Monday 9th September,



The Red-headed Lovebird is very active in large aviaries.

#### HOW I FEED MY RED-HEADED LOVEBIRDS

**From my point of view, lovebirds do not require any specific feeding.**

**I feed all year round as follows:**

- \* 2 parts of grains for lovebirds from Versele Laga
- \* 1 part of feed containing insects (Orlux Insect Patee)
- \* 1 part of egg feed with honey and insects (Orlux Gold Patee)

**I mix all the parts together. As far as the amount is concerned, I serve about 2 tablespoons of feed per pair per day. Furthermore, millet sprays and a very small amount of fruit, such as apples, grapes, dried figs, carrots, and other seasonal fruit or vegetables, are available for the parrots. However, I must say that the lovebirds usually eat only a little bit of apples from this mixture.**



### LEARN ABOUT RED-HEADED LOVEBIRDS

*Agapornis pullarius*

**Nominate form:** *Agapornis pullarius pullarius* (Linnaeus, 1758)

**Subspecies:** *Agapornis pullarius ugandae* (Neumann, 1908)

**Length:** 13–15 cm

**Weight:** 29–50 g

**Red-headed Lovebirds** (*A. p. pullarius*) are widespread in West and Central Africa, specifically in Sierra Leone, Guinea, Sudan, Angola and the Democratic Republic of the Congo. A population also occurs on the island of SãoTome (Saint Thomas). In the wild it feeds mainly on millet, but also figs and guava fruit. In the IUCN Red List of Threatened Species, they are included in the Least Concern category.

Unfortunately, the population living in the wild has been gradually declining. The Lovebirds seek savannas and lowland areas. The breeding season begins with the onset of rains. The female lays eggs in the nest termite mound nest every other day and the incubation period lasts about 23 days.

the first two chicks left the nest box - it was a really moving sight! The third chick left it on 12th September. Unfortunately, the fourth chick died in the nest box. I wasn't able to find the cause. The sight of the three chicks was fantastic; you can see them in the photos accompanying this article.

After that, everything went on without the slightest problem. About four weeks after leaving the nest, the youngs were separated from their parents, which gave them the necessary break after rearing the young ones. The chicks had been stuck to them, so they could do with a little rest.

In my opinion, this lovebird is not difficult to breed if you provide it with a spacious aviary, adequate temperature, humidity, and proper lighting. The temperature should be constant and the feed of good quality. Regrettably, I still see many breeders who have little knowledge about Red-headed Lovebirds as such. They don't give them what they need and fail to succeed in breeding them. Such a situation occurs not only with lovebirds, but I also encounter this problem with breeders of certain lorries and large species of parrots.

In Germany, there are only a few breeders of the Red-headed Lovebirds and, unfortunately, there has been only a little success in breeding so far. I do believe that over time the species will expand, and if the recommended conditions are observed, the success in breeding will intensify.

### Breeding season 2020

Last season was very bad for my Red-headed Lovebirds as well as lorries. Nevertheless, similar situations occurred all over Europe, judging by the words of my breeding colleagues. Everything went as usual with large parrots, but my Red-headed Lovebirds laid infertile eggs.

My lorries had only few young ones or infertile eggs, too. Well, that's what breeding brings as well, and we will see how this year's season turns out. 🙏



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 Gerhard Hinz

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# INFORMATION SHARING IS IMPORTANT,



## SAYS ANTON VAIDL

bird curator  
at the  
Prague Zoo

# It's

the first Wednesday in June (2020) and I'm walking into the main entrance to the Prague Zoo. Owing to the ubiquitous pandemic, the zoo could not be visited for several weeks, but now knots of happy families and other visitors are forming, here again, eager to see one of the most impressive and well-run gardens in the world. At that time, it never occurred to any of us that the gates would soon close again and would still be shut with the publication of this article (March 2021).

The area of 58 hectares is home to 12 unique pavilions and more than 150 beautifully landscaped exhibits. Zookeepers take care of 4.600 animals belonging to 680 species here. I'm greeting the local bird curator, Anton Vaidl, and we're winding our way along a steep path lined with rocky slopes towards the "Černohouska" café to do an interview for this magazine. I'm immensely honoured to share moments with such a highly respected curator, whose years of breeding activities and Ex situ contribution worldwide are undoubtedly admirable.



**Wild-type Budgerigars (*Melopsittacus undulatus*) at the Prague Zoo.**

**What is the latest news from the Prague Zoo to interest parrot enthusiasts?**

The most recent novelty is the opening of the Darwin Crater exposition dedicated to Tasmania and Australia. We included parrots in it. There is a large aviary with budgerigars right at the entrance. Actually, only our zoo and the Pilsen Zoo breed and rear a pure line of budgerigars in the Czech Republic. Being capable flyers, budgies move in plentiful flocks in the wild. They live in permanent pairs, which unite into colonies, and therefore it is appropriate to breed them in this way.

**I recall rare pictures of budgies in the wild, flitting over tall termite mounds, in which they also nest.**

Well, we provided them with a termite mound here as well, actually several of them. They are located in the middle and in front of the aviary so that they are clearly visible to visitors. Holes were made in them, and inside the holes, there are nests, which are heated. We had primarily intended the termite mounds for Golden-shouldered Parrots, but the budgies already occupied some of the holes and are incubating their clutches there.

**From the site of the new Crater, we can see the Rákos' House, whose exhibits feature parrots in imitation of natural habitats. Can you reveal how the idea to build this unique pavilion came about?**

I thought about the expositions we can see in the Rákos' House today for a long time. One reason for that was the fact that we kept many rare species behind the scenes, as there was nowhere to display them, e.g., Lear's macaws, Palm Cockatoos,



**Budgerigars aviary at Darwin Crater, the habitat for Tasmanian and Australian fauna.**



**Termit mound nest in the Budgerigars aviary.**



Unique exhibitions at the Rákos' House



and Yellow-billed Amazons. All these birds had been confiscated from smugglers. Furthermore, there were no suitable premises for the presentation of large species of macaws. They were located on the site of the former Štěpnička's Pavilion; however, it was a kind of emergency solution. So when the offer of a sponsorship gift from Mr. Rákos came, there was nothing to stop the launch of the project.

**Those “natural habitats” look very accurate.**

**Where did you get your inspiration from?**

It was not possible to draw inspiration from another European zoo, as no building for parrots with a similar design can be found anywhere. Thus I mainly worked with personal experience from my own breeding, visits to zoos in tropical countries, and parrot observations in the wild. I'd had the opportunity to visit some habitats, and when designing the exhibits, we relied on photographs taken by me or my colleagues. The paintings on the walls are supposed to look elegant. Hence they are created in natural pastel tones, which do not disturb the arrangement of the exhibition

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**Hyacinth Macaw** (*Anodorhynchus hyacinthinus*)

in context at all. We aim to show visitors the parrots in the environment they really live in.

**Can you say with hindsight whether the Rákos' House has met your expectations?**

I believe it has. I must say that I am basically satisfied. The truth is that thanks to long-term planning and quite long-lasting construction, we had the opportunity to deal with some particulars rather in detail. The Rákos' House was opened last September, and some parrots had been placed there six months prior to the opening, while others one month in advance. At first, we concentrated on individual species becoming accustomed to each other.

Now with some time having passed, we place more emphasis on functioning from the breeding point of view. At this moment, the first main season is behind us, and we already reared one chick from the keas that nested in the new environment.



◀ **Kea**  
(*Nestor notabilis*)

My wife and I decided to hand-rear the second one. The original temperature of the box was set to 35 ° C after removing the chick from the parents, but was reduced to 32° C the following day and gradually further reduced. We reared the chick without any complications, and now we are focusing on socializing the young one within the group so that it is not fully dependent on humans.

**In what ways are keas different from others besides excessive playfulness and curiosity?**

What is really unique is their cleanliness, for example. Most parrots do not mind the accumulation of droppings, as they usually live symbiotically with various species of insects that feed on the faeces of the young ones. Not the keas though! They splash the faeces on the edge of the nest. Our hand-reared chick splashed the droppings similarly to predators or targeted them at one corner. Furthermore, they are special in their vocal expression, which is different from the typical parrot scream. These New Zealand birds express themselves by whistling tones that are far more audible in the mountains of their homeland.

**Is the Lear's macaws' exposition intentionally next to the Hyacinth macaws' exposition?**

It was an intention, indeed. The visitor can see that at first glance, a similar parrot can be very different. The Lear's macaws inhabit bushy arid areas called Caatinga, where they feed on the fruits of the original licuri palms. Today, they are already adapted to widely grown corn as well. They nest in sandstone canyons, where they use rock niches often connected by intricate corridors. An imitation of this red-coloured rock is available for them in the exposition, while the nesting burrows can be easily inspected from the background.

On the contrary, the hyacinth macaws nest in tree cavities and their homeland is the edges of moist forests and tree savannas. Hard fruits of palm trees constitute the main source of food. The visitor has the opportunity to get an immediate picture of the life of both species. And today, we can say that the intention was successful because even completely lay visitors



▲  
**Kea outdoor aviary**

**You must have been very pleased with that...**

Yes! The keas rank amongst parrots that get used to the new environment well. However, it must be adapted to their needs. In this case, the 122 m<sup>2</sup> outdoor aviary is designed in the spirit of New Zealand's South Island. The Southern Alps stretch along its entire length. Here we took advantage of the original sloping terrain. Keas can nest in nesting burrows, with a space littered with foundry sand at the end. The chicks hatched shortly after the zoo closed due to coronavirus, and unfortunately, one chick died.

**Artificial nesting cavities simulate the size and structures that the curator knows from wild nests.**

pause at both exhibitions because they see the "same" parrots in different expositions. Following the subsequent view of the educational elements, they discover that these species are actually not exactly the same as they seemed at first glance. (*Just a note: in some part of their range Hyacinths nest in cliffs.*)

**What are the current plans with the Lear's macaws?**

At present, we have two pairs on display in the Rákos' House. The fact that parrots must be presented to the public was a condition of the Brazilian government. The Prague Zoo is part of the conservation



**Lear's Macaws at the Rákos' House.**



**Large aviary with Burrowing parrot's cavity holes.**

programme, and so is Loro Parque, which has been successfully breeding Lear's macaws for a long time. The other Lear's macaws kept outside Brazil are not officially part of the international breeding programme, and that is about half the population after the closure of the Al Wabra breeding center. Unfortunately, there is a lack of joint coordination of breeding, which does not contribute much to activities in the effort to reproduce the species and subsequent activities for in situ protection.

The first Lear's macaws were confiscated in the Czech Republic in 2010. These were three males that were placed in Prague Zoo's CITES Centre. In 2018 a female confiscated in Germany arrived. She is likely to have been a pet before, as her behaviour corresponds to that, but we are trying to socialize her with others directly in the exposition. We got more individuals in exchange from Loro Parque. Gradually, we would like to acquire more macaws, which we are working on now. All four seem to be getting used to the pavilion well, although the female from Germany still has occasional fluctuations in her behaviour. The exposition also houses live cacti of the *Cereus* genus, which the macaws encounter in nature. It is interesting how adaptable they are, and they can not only sit on them but also deftly climb out of the ground. The exposition has an area of 43 m<sup>2</sup> and a height of 6 meters. Visitors see the parrots through thick glass, and there is a grid in the upper parts of the expositions, owing to which vocalisations can be heard.

**The exposition with the Burrowing parrots has also nesting holes. Has their breeding been successful yet?**

The Burrowing parrots nested, which is very important to us, as these are parrots from their parents in Santiago de Chile. We got them from France, where we cooperate with the zoo in Doue la Fontaine, which imported this 100% pure and at the same time critically endangered subspecies of *bloxami*.

The breeding of the *bloxami* subspecies is mentioned in Europe, but the true origin of these birds is no longer 100% known. We try to have maximum awareness of the real subspecies identification. Naturally, maintaining the pure line further is the second question. This year (2020), we have reared three chicks for the first time, and we have already dealt with the possibility of an exchange in bloodlines, so hopefully, we will be able to maintain this subspecies in the long term.



**The Prague Zoo is very successful in the breeding of Palm Cockatoos.**

**You are the only zoo in Europe that naturally breeds palm cockatoos. This is a great success. Could you outline the specifics of their breeding?**

In the zoo we have two pairs, one of which regularly rears young ones. Even within one species, you can notice different signs of behaviour with these parrots, especially in their shyness, hostility, but also in the intake and popularity of food, etc. It also turns out that it is not suitable to keep individual breeding pairs close to each other, as the territoriality of individual pairs exceeds the size of the aviary. I gained this experience from my short work stay in a breeding center in the Philippines. When the alpha pair begins to nest, the other pairs cease their nesting activity.

We also know this behaviour in some other bird species. I consider natural breeding a success and it was a definite goal. Within all zoos worldwide, only one chick at the San Antonio Zoo in the USA and three chicks at the Prague Zoo have been naturally reared in the last five years

**What is the cooperation within the conservation programme you are a part of?**

There are two conservation programmes for palm cockatoos - European and American. The philosophy of the American programme suits us better. The fundamental difference is that the European programme addresses genetics quite substantially. Taxonomy is a non-exact science and lists, for example, three subspecies, five subspecies, etc., so it's a bit of a pell-mell situation. Representatives of the European programme have started to genetically test the palm cockatoos kept in European zoos. We're talking about 30 or so birds. However, they did not have any primers from the wild; they allegedly only had museum samples and, based on the results, they specify who breeds which subspecies. They basically distinguish two - *aterrimus* and *goliath* - and the third is referred to as the "unknown" subspecies. Even if we only consider that *aterrimus* and *goliath* overlap in their habitats, logically there must be a certain transition phase. There is no fixed border. And unfortunately, this is not explained within the programme.

The difference of the American programme's philosophy lies in the fact that the San Diego Zoo coordinator is not that much focused on genetics, so the subspecies are distinguished morphologically. Therefore, he recognizes *goliath*, *aterrimus* and *stenolophus*. The priority of the programme is to study



how the palm cockatoo behaves and how to achieve breeding. The programme coordinator visited the Prague Zoo and was interested in the conditions we keep our parrots in and how we feed them, etc.

I also provided her with complete records on breeding management. Accordingly, they included us in the American programme, and we exchange information. For instance, when a chick hatched in San Antonio, I provided information on when to separate it from the parents in order to make it safe, as occasionally some aggression occurs, with some parents attacking the chick. Although Palm cockatoos are peaceful compared to other cockatoo species, aggression does sometimes take place. As you see, we're working on practical issues with the Americans, which is good from my point of view.



**Monk parakeet (*Myiopsitta monachus*)**

**You have hand-reared Palm cockatoos as well. Where did you find information about their hand-rearing?**

We had the initial information from a private breeder from Germany, but I based it on my previous experience with hand-rearing other species of parrots. In essence, we had to figure out the right way ourselves. Nowadays, we already have protocols for rearing, with the growth curves and all other records stated. We provided them, for instance, to “Weltvogelpark Walsrode” last year, where they successfully hand-reared one chick. We used to share our information with Loro Parque, for example, at the time of Juan Cornejo’s curatorship.

As I have said, we got the initial information about hand-rearing from a breeder from Germany. We set aside one whole hatchery for the palm cockatoos, which is quite a comfort, as we have about 2,000 eggs a year from all the birds in the zoo, half of which are incubated in the hatchery. All eggs are recorded, and every five days, they are measured and weighed. The zoo is a kind of nature reserve of information that is constantly piled up, and then it’s a matter of time before it is processed.

**I devoted the introduction of this issue to the importance of information sharing, and we agree on that. Do you also draw information from books and magazines?**

I have favourite books and magazines to draw information from. It’s largely about the authors. It would be very beneficial if all breeders kept records and subsequently shared them. The articles should be so compact that they could serve as a kind of guide for breeding – that’s important. I consider sharing



**Special fig parrots nestboxes behind the scenes.**

information containing records of my own experience crucial, as it moves everyone forward.

**Do you exchange information or otherwise cooperate with private breeders, too?**

We have been cooperating with several Czech breeders, but mostly with foreign ones. We exchange information, but we have also established cooperation with them in depositing some species. Personally, I think that when private breeders specialize in something, they have a chance to find out more than a zookeeper, who has a too extended scope for breeding many other birds. If the breeder’s responsibility prevails and does not succumb to fashion trends and remains with that particular species, he/she may also play an important role in the future protection of the species. It is important that a history is built in the breeding – it shouldn’t be just about parrots of, for example, 1st–2nd generation.

The problem actually is that if the breeder does succumb to the fashion trend, he/she will often sell the original parrots quickly, and they usually disappear. And when an interest in them arises again in a while, they are not available. Due to the small genetic diversity, inbreeding usually takes place, forming a vicious circle. These situations occur within zoos more slowly, as they mainly focus on that breeding history and can keep the species for a longer period of time.

For example, we are breeding vernal hanging parrots now exactly 20 years after their import in the original line with more than 110 hatched chicks. I dare say that in the case of such a delicate little parrot, we can hardly find comparable private breeding, maybe not at all.

### **Are you trying to introduce rather rare species of parrots to visitors?**

Thank you for this question, because I will be happy to answer it. It is not the most important to breed the rarest species. From the zoo's point of view, it is important to present them to visitors in a way that they can really get to know them in the most natural environment possible. It's all about to expose the species nicely, as it will be overall promoted at that moment. For example, when you visit the new Darwin Crater, you will see how the ashen-grey and seemingly indistinct Cape Barren goose stands out when it is beautifully exposed. A neatly furnished aviary or exposition must surely excite everyone, and when we take responsibility for living creatures by breeding them, we should have due respect for them.

I must say that whenever I have the opportunity to observe in the wild a bird species we keep in the zoo, I suddenly feel more responsible for those birds in the aviaries.

### **Do you intend to further expand the expositions of parrots in the zoo?**

We don't for sure. I would say that we already have quite a few parrots for a non-specialized zoo. Currently, there are a total of 38 species. And the fact that parrot breeding is very widespread in the Czech Republic also plays a role. I believe that, for example, galliformes or South Asian songbirds and other groups of birds are in greater climb-down than parrots, so we must also address them.

**Anton Vaidl & Helena Vaidlová ►**

Anton Vaidl is also a member of the supervisory board of the Vulture Conservation Foundation (VCF), which seeks to protect all four European species of vultures. Within the conservation programme, which is coordinated by the Prague Zoo, he is in charge of, for example, the reintroduction of the Egyptian vulture in European countries. He collaborates on the protection of the White-bellied Heron in the Kingdom of Bhutan and focuses on the protection of Asian songbirds in breeding and conservation, based on the long-term breeding management experience of the Laughing thrushes and other Asian passerines.

Twenty years ago, these birds were successfully bred, but today they are rare, and the Prague Zoo still breeds a collection of 15 species of these increasingly rarely bred songbird species. He is also a member of the working groups of the International Union for Conservation of Nature (IUCN). The breeding

of parrots has been associated with the Prague Zoo since the times before its opening in 1931. Many parrots were actually bred at home by its founder and first director, high school professor, and ornithologist Jiří Janda. Štěpnička's Pavilion was originally built in the zoo (now the Rákos' Pavilion is located in its place), as well as a number of double aviaries, so-called "Linear". In the current zoo exposition, two of these aviaries are preserved as a historical sight.

Parrots can also be admired on the Parrot trail as you go up towards the "Černohouska" café. Here you can find a collection of Lories and Lorikeets that enjoy a truly magnificent view of Prague. Further details about other expositions can be found in the Prague Zoo's "Trojan Horse" magazine or on the website [www.zoopraha.cz](http://www.zoopraha.cz).

The bird curator, Anton Vaidl, has been representing high-quality objectives as well as results of his team's work within his travels and professional lectures at congresses around the world, thus increasing the overall prestige of the Prague Zoo, which, thanks to his persistent activities, will undoubtedly go down in the history of endangered species protection. 🌿



**In the next issue of AWIPARROTS you can look forward to an interview with MVDr. Helena Vaidlová, the curator's wife. We will deal with veterinary issues and common problems that the clinic solves.**



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*Iggino Van Bael*  
PHOTOGRAPHY





## PARROT PHOTOGRAPHY PRESENTATION

**Red-fronted Lorikeet**  
(*Charmosyna rubronotata*)  
– Max Weijers breeding

### Igginov's Bird pics

Igginov Van Bael from Belgium specializes in the photography of birds in captivity and in the wild.

The photographer breeds Lories and Lorikeets as well.

He is the owner of a photocage and can take pictures of your birds in Belgium, Netherlands or Germany.

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 Igginov's Bird pics





**The Red-fronted Lorikeets (*Charmosyna rubronotata*) is one of the rarer lorikeet species in aviculture. In the autumn of 2009, I managed to obtain one young pair to add to our lory collection. It was one of the first pairs in the Czech Republic.**

# Personal experience with the breeding of the **Red-fronted Lorikeet**

**By** Milena Vaňková

We live in the north of the country, where the winters are sometimes intense. That is why we had to build a proper breeding facility for our birds. It is a temperate house containing a few cage-aviaries. My pair was put into a 1.2m-long x 1m-high x 1m-wide plastic aviary with a wire aviary mesh front wall and a swivel bowl feeder.

The aviary temperature is maintained between 20–25 °C. The Red-fronted Lorikeet and other lorikeet species that we breed, except the Papuan Lorikeet, do not tolerate lower temperatures which seem to have an immediate impact on their physical condition, mood, and activity levels.

For this reason, we maintain the higher temperature range mentioned. Although one can read in the literature that this species can be kept at a lower temperature than 15 °C, I cannot entirely agree with that statement. According to personal experiences,

I can confirm that if the temperature is lower than 18 °C, birds feel uncomfortable, and this is very clearly obvious. The cage is equipped with a UV Lamp. As the lorikeets can nest in any period during the year, we prolonge the day to usually a minimum of 12 hours. This is essential during the breeding period so that the parents can give the chicks enough food. These lorikeets like to be sprinkled with water from the sprayer.

The lorikeet's wooden nesting box measures 25 x 25 x 25 cm. It is inside the cage and can be checked from the outside. The nesting box is available throughout the whole year as they also sleep inside every day. Very thin wood shavings are used as nesting material.

### The very first clutch

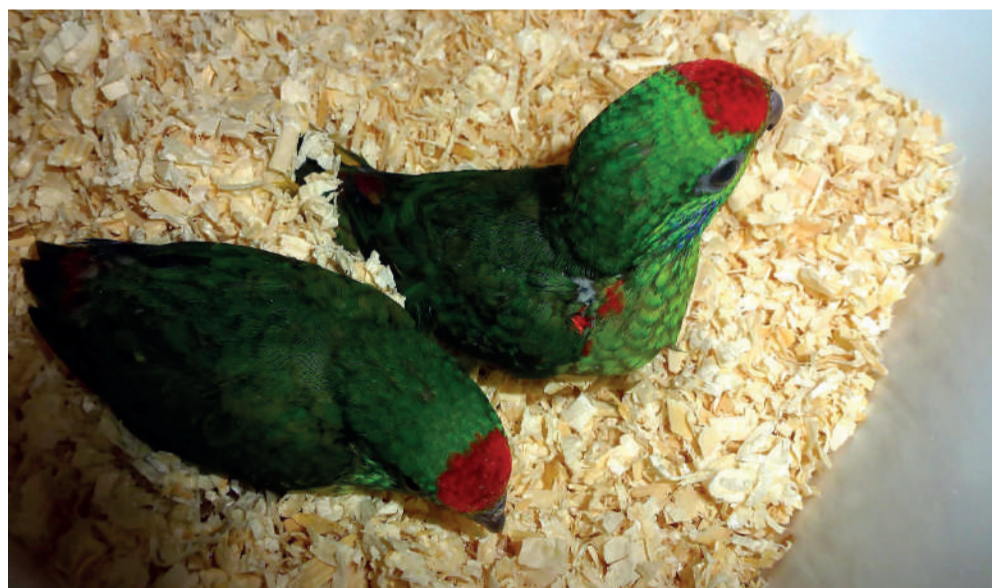
The first clutch of eggs was laid at the beginning of the year 2010, but the nesting was unsuccessful. The second clutch of one clear egg and one fertile one appeared in April. On 1 May 2010, after 26-28-days, a chick hatched. On the monitor, we observed how the female helped the chick out of the egg. During hatching, both parents were in the nesting box, and at times the female's actions seemed brutal to us. The birds literally kicked the second infertile egg into the corner of the nesting box and ignored it. The female fed the chick two hours after it had hatched. I want to mention that the parents fed the chick even at night until it reached a certain age.

The camera in the nesting box shows us quite a bit, but even so, we were worried about whether the chick had been fed enough and therefore decided to risk directly checking on it in the nesting box. Everything worked out well. The chick had been fed, and we were able to take photos and leave the aviary before the parents returned to the nesting box ten minutes later. For most of the nesting, both parents were in the nesting box, frequently quarreling and scuffling about with their chick close by. After a week, we again checked on the chick in the nesting box and found it had grown twice its size,

overfed rather than underfed, and that the nesting box was clean and dry inside. After another week, we ringed the chick, a process to which the parents did not react much to.

When the chick was 30 days old, we noticed that the bedding in the nesting box was wet, so we added

**35-day old  
Red-fronted Lorikeets.**



**63-day old Red-fronted Lorikeets.**

another layer of shavings. This is how I do it for all lories. I never clean the nesting box during nesting but only add more bedding when necessary.

On 13 June 2010, when the chick was 43 days old, it left the nesting box, which was a bit soon, in my opinion. Branches were strategically placed around the aviary to enable the chick to get back to the nesting box. Unfortunately, after several hours, we found the chick still outside the nesting box and with a pecked head and injuries around its eye. It was evidently attacked by the male that had begun to court again.

We removed the chick from the aviary, put it into an incubator set at 28 °C, and began to feed it by hand. This proved a not-so-easy task because the lorikeet chick was essentially wild and easily frightened. It did, however, eat. After four days, we put the completely fledged chick into a bowl. The temperature was 24 °C, which in this case, was a big mistake. We found the chick ruffled, almost motionless, and with almost no signs of life either because these birds are extremely sensitive to temperature or due to this chick's injuries and stress. We gave it several drops of honey water and put it in an incubator set at 35 °C. After about two hours, when we were almost sure the chick would die, its condition significantly improved.

#### Our Lorikeet's feeding mix - apple, pear, white and red grapes and papaya.



We fed the chick a mixture of Nekton, Kaytee, honey, fructose, and glucose along with Sangrim, which was mixed into the food and applied externally on its wounds.

Gradually, day by day and step by step, we lowered the temperature in the incubator and fed the chick even from a bowl. It began to taste the nectar we had given it and gradually began to drink by itself. Its wounds around the eye began to heal, and only a trace of the featherless spot on its head remained. As soon as the chick was ready, we put it back in the aviary, and this was the first successful breeding of the Red-fronted Lorikeet in the Czech Republic.

## Current breeding

After the first breeding experience described above, we breed every year parent-reared lorikeets. Currently, I have three pairs. The female usually lays two white eggs, sometimes three. The incubation period is 24 days, and the young leave the nesting box after six or seven weeks.

Due to sexual dimorphism, it is possible to see very early whether the young is male or female. The males have a few red feathers on their underwing. Only in a very few cases, we had to take the chick for hand-rearing. This was caused mainly because the temperature in the aviary went down or the parents didn't have enough food in the evening. If you secure those two important conditions, the parent rearing will be without problems. We tried various special mixtures in the time of hand-rearing, but the birds rarely achieve good results. Some time ago, I tried the GM Breeders mixture specially developed for lories and lorikeets. By using this one, we had the best results.

## General feeding of adult birds

Lorikeets are nutrition specialists and eat nectar, pollen, and fruit in their natural habitat. It is not a problem to suit their habits also in captivity. It is necessary to provide a fresh mixture every day and even a few times a day when temperatures are high. In any case, fermentation of the liquid mixture or the fruit must not be allowed.

**Liquid mixture preparation:** It is possible to give the birds the commercial food, which is mixed with water. It is possible to add honey to this mixture. According to my experience, my advice is to give the Red-fronted lorikeets a very thin mixture.

## Our way of feeding

We use commercial feedings Aves, Nekton, and Orlux with an addition of honey and sometimes spirulina, yeast, calcium, dry herb mixture, and eventually vitamin E.

Our lorikeets get a bowl with cut fruit every day. We never give them citrus fruits. They love green foods. The water is changed every day, and it is good to provide a larger bowl so that they can bathe.

**This species is charming and we would like to disperse our breeding stock. I would welcome any cooperation so please don't hesitate to contact me. I would be pleased to know about the experiences of other breeders of this beautiful species!** 🇨🇪



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Crimson-bellied Conures  
with two young ones.



# TIPS – NOT SECRETS FROM 50 YEARS OF PARROT BREEDING

*By* Rosemary Low



I will not apologize for stating the obvious when I say you only get out of something what you put in. This is most certainly the case where breeding parrots is concerned. If you cannot apply love and hard work, don't bother! The more time you spend with your birds, the better you get to know them and to observe what they need or the idiosyncrasies of certain individuals.

**L**et's face it! Most breeders have too many birds. You learn mainly by close observations and if you have time only to rush around and feed them, and clean out the aviaries when necessary (or overdue), you will miss so many important details - small things that make up the big picture. Small signs that make all the difference between breeding failure and breeding success.

Over the years I have seen it happen many times! A breeder with just a few pairs has outstanding success with them. "This is easy! I will double the number of aviaries!" He expects to double the number of young - but unless he is retired and can spend most of the day with his birds, it doesn't work like that.

My belief is that the breeder with just a few pairs achieves a much better ratio of young to breeding pairs than occurs in a big collection. Large collections might produce a lot of youngsters but the average number of young per pair is very unlikely to be high.

In a big collection there is seldom time to get to know each bird and to have a good relationship with it. In aviaries where the parrots fly away from the onlooker, owner or feeder, it probably means they see people only when they are fed. If you cannot study birds closely you miss clues of poor health, incompatibility, leg rings causing injury, prolonged moult and many other danger signs. Not only that, what pleasure is there in keeping birds that do not respond to your presence? For me, the greatest joy in keeping parrots is the relationship I have with every one them.

Overall the number of parrots that I keep, about 16, gives me more satisfaction than when I was responsible for the care of 500 or so or, when in my own collection, I had

**My aviaries  
in the United  
Kingdom.**



**My favourite parrot species**  
- Pesquet's Parrot (*Psitttrichas fulgidus*).

80 or 90. Indeed, the responsibility hung heavily on me because with such a large number it was inevitable that important factors that affected the welfare of some birds were missed.

So my **TIP NUMBER ONE** is: limit the number of birds you keep to the time you have available to care for each one in an exemplary manner.

**TIP NUMBER TWO** is: do not underestimate how long it takes to maintain aviaries in a clean and safe condition. If possible, allow a set time every week for checking welded mesh and structures. Unrepaired holes or damage can lead to escapes or the entry of predators. Too many birds are lost in this way. If you as yet have no birds but are thinking of going into birdkeeping, be aware that wooden aviaries are very difficult to maintain in a safe and hygienic condition. Aviaries with aluminium framework will last for many years in good condition and still look smart.





▲  
**Lorikeets, such as this young Goldie's, have always given me so much joy.**

▲  
**I try to make the aviary floor interesting with small clumps of moss and grass.**

**TIP NUMBER THREE:** talk to your birds. Most parrots are highly social and inquisitive and enjoy interacting with other creatures. Talk to them! They will respond. Because they are so vocal, it is possible that they look with suspicion on silent creatures.

Talking to them means spending time getting to know each one and observing it more closely. I have already mentioned how important this is. By talking to them you build up a rapport that increases your enjoyment of bird keeping. When someone says to me: "I always talk to my birds", as though that is silly or unusual, I always think: "Well, of course! Why not?"

**TIP NUMBER FOUR:** If you are having success in breeding a particular species, do not think of changing your method because someone else is even more successful. And if you fail consistently, do not expect to succeed by copying the management of a successful aviculturist. In aviculture conditions are never precisely the same in any two collections. Most of our methods are not quantifiable. Even if we could precisely replicate every aspect of management, the personalities and behaviour of individual birds vary - just as do those of the person looking after them. Often people cannot define the real reason for their success. I put it down to attention to detail, seen through a constantly observant pair of eyes!

I recall that some years ago, when I was visiting the USA, someone complained bitterly that they had copied the method I had described in an article for breeding a certain species, but that method had not worked! I was just surprised at his naivety!

**TIP NUMBER FIVE:** Adopt a routine, and stick to it, especially regarding time. Birds - in aviaries and in the wild - are very much creatures of habit. They also appear to have an inbuilt clock and know when their food is late. This can make them anxious or bad-tempered. I started to keep Budgerigars when I was twelve years old and would get up at 6.15am to feed them before I went to school. Some people are amazed when I tell them this habit has persisted throughout my life. I firmly believe that the first feed should be as early in the day as possible, although I admit it is not vital for mainly seed-eating species. For softbills and lorries, who usually ignore the previous day's food, it is important.

**TIP NUMBER SIX:** If you have more birds than you, or you and your partner, can feed without hired help, you have too many birds. (This does not apply, of course, in commercial breeding establishments.) I recall an American friend telling me that the man he had employed to feed his birds, chopped up the fruit and vegetables - and then threw them over the wall because he was too lazy to deliver them to the many cages. One day my friend chanced upon a big pile of rotting fruit. The moral of this story is: if you have to employ someone, supervise them closely.

**TIP NUMBER SEVEN:** Colour is of extreme importance in the lives of birds. Consider this in deciding what to wear around your birds. Muted colours and shades of green are best. They do not appreciate brightly coloured clothes, especially in solid colours. This applies particularly to red. White, seen in nature mainly in flowers and blossom and in the plumage of cockatoos and egrets, should also be avoided. (Veterinarians, please note!)



I started with Budgerigars and I still love these birds. The perfect species with which to learn the basics of parrot breeding.

**TIP NUMBER EIGHT: Perches!**

This is a subject to which, in my opinion, most breeders fail to give enough thought. Why is it so important? Don't you just need one at each end of the aviary? No! Be imaginative. Most parrots enjoy vertical perches. Imagine what it is like to wear an uncomfortable pair of shoes all day and every day. Bad perching is the equivalent for our parrots. Perches can fall into this category because they are ancient and shiny, too wide, dirty, plastic, metal (please don't!) - or simply missing altogether. I recall visiting one place where, to my dismay, all the birds were clinging to the wire. The perches had long disintegrated or fallen down. Clearly here was a couple who should have already given up keeping parrots! (Equally dismaying was the state of the windows in the house which were totally obliterated by cobwebs - I thought I was in a horror movie!)

Natural wood perches are recommended. Given a choice, many parrots opt for surprisingly thin perches. They greatly enjoy thin, springy branches, especially willow. Nothing makes most parrots more excited than a new supply of fresh-cut branches. The pleasure they give makes it worth the effort. Parrots need a choice of perch sizes, because always gripping a perch of the same



**Rose-headed Conure** (*Pyrrhura rhodocephala*) enjoying the blossom of hawthorn. It is important to provide conures with flowers of various kinds.

circumference is not good for their feet. Perches in cages must be washed frequently; they soon become sticky from fruits.

It is a lot of work to keep aviaries and cages supplied with suitable branches. Most parrots would be nibbling and gnawing all day long if provided with enough fresh-cut wood or berry-laden branches such as hawthorn. Finding a supply can be a major problem for some urban dwellers. Seek advice from other local parrot keepers as they will be able to recommend suitable trees.

**TIP NUMBER NINE:** Do not breed from aggressive birds.

Aggression is inherited. This results in such problems as males killing females and breeding birds with a poor temperament, unsuitable for pets.

**TIP NUMBER TEN:** You will receive much more satisfaction from birdkeeping if you know in your heart that you are doing everything possible regarding environmental enrichment. My heart sinks when I see an aviary containing nothing but a perch at each end. My own aviaries are made into interesting environments. There are tough shrubs such as elder growing through the gravel on the floor or in tubs, stainless steel dishes hung from the roof to provide not only a satisfying bath but also a swing, and a simple swing made from a length of apple branch with a length of chain stapled at each end. Depending on how playful the pair of birds is, other items on which they can swing or gnaw are also provided.

**TIP NUMBER ELEVEN:** Cultivate your cynical side! When you see a "true breeding pair" offered for sale, you are right to enquire whether they are wearing the correct size rings and have DNA sexing certificates with matching ring numbers! If not, they could be another "pair" of cocks! 🍷



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# SOILS AND PARROTS

LORO PARQUE FUNDACIÓN BREEDING TIP



By Rafael Zamora Padrón

It is relatively difficult to see parrots at ground-level in nature, but the reality is that they often come down to take advantage of different resources. They also spend time inspecting the ground to obtain seeds or fruits that have fallen from the trees.

In order to be able to walk on the ground or in the middle of the grass with confidence, usually one or two couples of the flock are located in high zones to give the voice of alarm before any movement causes them distrust. For this reason it is very normal for parrots to show insecurity when they are on the ground and are more sensitive to any unexpected surprise.

Access to the ground or the bottom of the aviaries is important because at certain times of the day many species of parrots have a habit of walking on the ground. They inspect every corner where they can locate items that enrich their diet or arouse their interest. Knowing this, in Loro Parque Fundación, we give the option to locate, in the lowest points of the aviaries,

Yellow-shouldered Amazon  
(*Amazona barbadensis*)



Yellow-shouldered Amazons  
(*Amazona barbadensis*)



### IF YOU BREED PARROTS, DON'T FORGET ...

- 1 Many species of parrots go down to the ground level to look for seeds and herbs.
- 2 The lower parts of the aviary must be kept clean to avoid infection.
- 3 Rocks and large trunks with holes allow seeds to be hidden at this level. Means hours of entertainment for your parrots.

different types of seeds that may be buried or hidden in the grass. This means a source of curiosity and use of time in the development of natural behaviors.

In the autumn season, parrots tend to focus on looking for minerals. They are moulting their plumage, and the young birds will devote hours to this activity. It is also on the ground where juveniles can play with each other with greater stability. When parrots live in suspended aviaries they have a protective mesh to avoid direct contact with the waste, as is the case of many Australian parrots (with a tendency to pick up ground parasites very easily).

Trays containing soil can be provided sterilized to fulfill the same function. For many species, such as king parrots (*Alisterus* species), access to soil clearly benefits them. It is possible to put trunks on the aviary floors, or big branches or stable stones with gaps, always ensuring the parrots could not become trapped in these gaps. It is important to use renewable substrates periodically that don't contain harmful elements. These rocks, large roots or trunks with holes, allow the keeper to hide fruits or seeds in different locations, with a surprise element for our beautiful parrots. 🦜



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# EGG BINDING in parrots

**By** MVDr. Helena Vaidlová

The phrase "egg binding" usually refers to cases where the female has trouble laying eggs. It is not a completely accurate term, but it will be used here for all cases where the female has reproductive problems and needs our help to lay the egg. The problem most frequently occurs at the end of the oviduct, when the egg needs to be expelled from the oviduct through the cloaca out. However, some problems may occur even before that.

## **Egg yolk peritonitis**

Although this diagnosis does not directly belong to the group of problems with "egg binding," I would like to mention it here as well. The female, which reaches the period of reproduction, is affected by hormones from the pituitary gland, which stimulate the ovary to its activity. The individual follicles begin to enlarge and mature. The small formation, which resembles a miniature bunch of grapes outside the reproductive period, becomes a huge organ that occupies a large part of the female body's cavity.

This huge organ is composed of individual follicles of various sizes, which are the future egg yolks. Each follicle is bound by a membrane that is flexible and strong, but

**AN INSUFFICIENTLY CALCIFIED EGG**

This egg does not have the correct radiopacity on an X-ray (it is not very white). The female had cramps and very severe symptoms of hypocalcaemia, but after several hours of calcium and glucose therapy in the bone, she laid eggs. The shell was weak.

The female was relieved and began to act in a normal way.

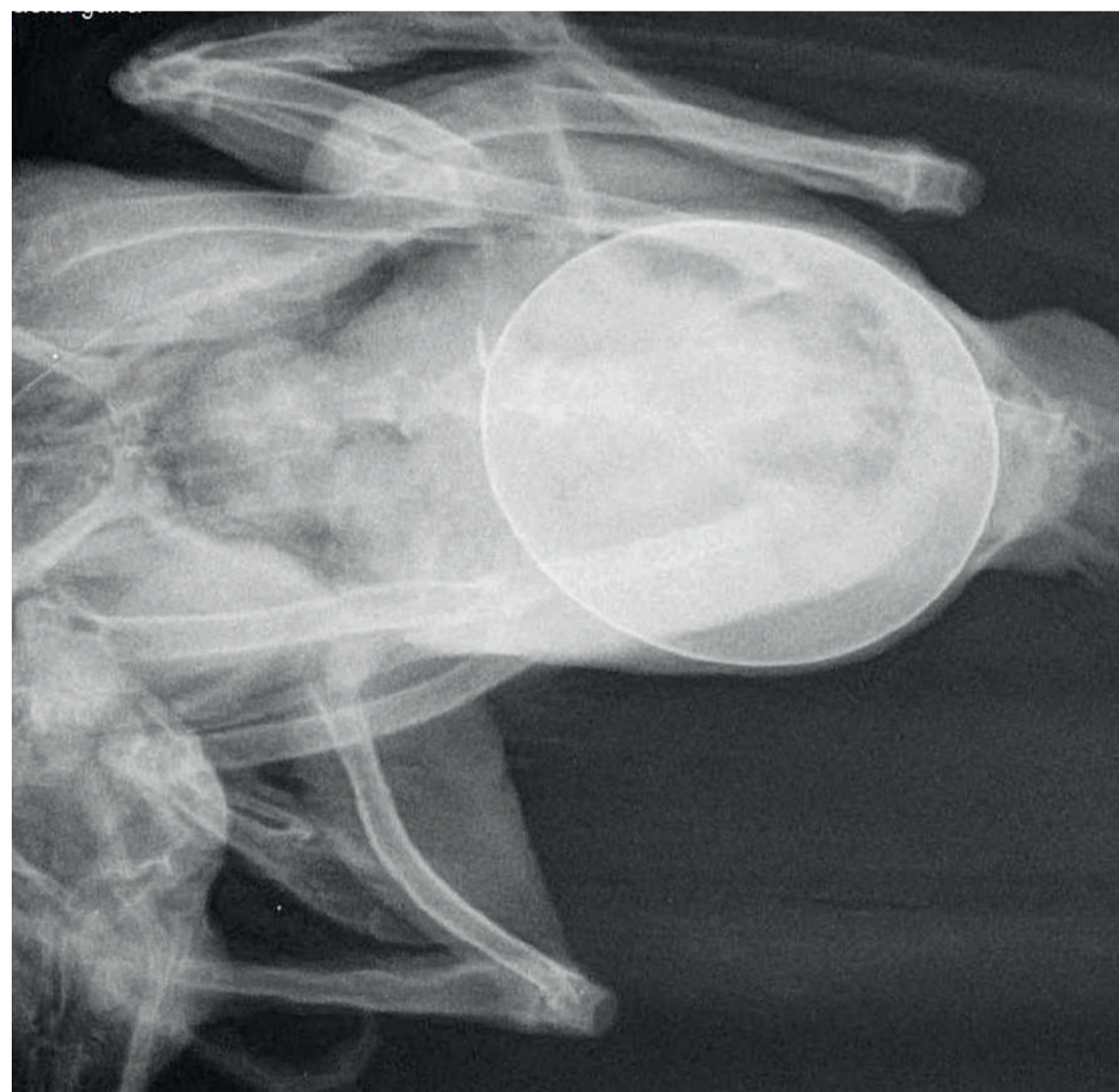
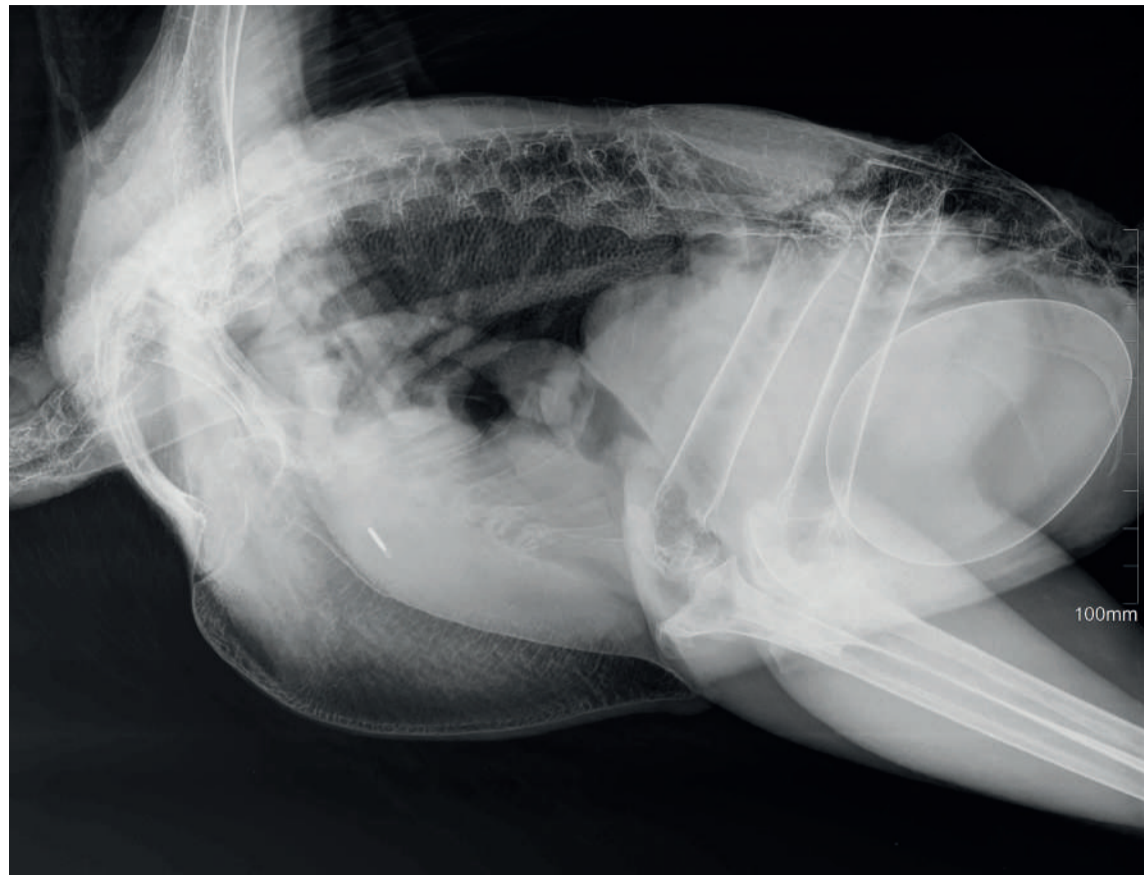
the strength of the membrane may vary in different females within a species. Anyone who makes scrambled eggs or other egg dishes from time to time knows that not every yolk is equally firm on its surface. Some are difficult to cut with a knife or fork, while others are very fragile and crack when you try to place the egg on a frying pan while preparing a fried egg.

Thus it may happen that the yolk sphere breaks on any impact before it is released and caught by the infundibulum of the oviduct, and the yolk is poured into the body cavity. It can also happen that the yolk sphere is not caught by the oviduct and falls completely into the body cavity. This is basically similar to an ectopic pregnancy in women. Some females can live in this condition for several days, exceptionally even for weeks, but most begin to be suddenly apathetic and die within a few hours. During dissection, we find a yellowish turbid viscous fluid in the entire body cavity, mostly just to the left - around the ovary. This condition is basically incurable; only very rare cases can be diagnosed in time and then surgery can be performed when we thoroughly cleanse the body cavity and apply vigorous therapy.

It can be prevented by restricting the handling of a female who we suspect could lay eggs soon. During this period, it is advisable to avoid any stress. Furthermore, yolk peritonitis is prevented by a high-quality and varied diet, which should contribute to a high-quality, firm and flexible membrane covering the yolk sphere.

**Disorders of egg formation**

As the yolk progresses through the oviduct, it is gradually covered in layers that make up the albumen, eggshell membranes, and the shell. At any stage, a disorder can occur, and the symptoms are non-specific yet always similar. The female is simply under the weather,

**IS IT NORMAL OR LARGE EGG?**

Although it may appear on the X-ray that the egg is larger than the female is able to lay, the female laid this egg without any problems.



#### AN UNSUFFICIENTLY CALCIFIED EGG

**This *Pyrrhura* female had life-threatening cramps. After stabilization, it was possible to get out a part of the egg, but a part remained inside and as it was soft, the egg kept tearing. After several days of calcium supply, the rest of the egg was successfully removed being already more calcified, and it was possible to get it out of the oviduct.**

#### THE REMAINS OF AN UNSUFFICIENTLY CALCIFIED EGG

she can be slightly lazy, apathetic, or ruffled, or she can be really unwell - lying in agony. Mild symptoms can hardly be distinguished from the physiological state when the female is not quite well because her abdomen is full of follicles, many times magnified oviduct, and the formation of a normal egg makes her quite exhausted. And this is precisely the fact that often leads to an underestimation of the situation by the breeder, who waits for the condition to develop in some way and this loss of time can cost the female her life.

Problems at this stage can be caused by many factors. Infection of the oviduct is not insignificant, nor is a general infection that affects the female at the time of egg formation. Other important factors include calcium deficiency, although no shell is yet being formed. Deficiencies in other nutrients can also considerably affect these disorders. Chronic problems

can also occur. In the oviducts, we then find the so-called conglobate objects. These were originally supposed to be an egg, but the yolk that fell into the oviduct did not pass properly through the oviduct and created a stone-like formation. Infection is one of the reasons for this condition. They can have different colours; they may or may not be attached to the wall of the oviduct; they may have different sizes; and most importantly - there may be more of them. It is evident that in this case, without our help, normal eggs will never be produced by the oviduct - and sometimes not even with our help.

### Disorders of egg expulsion

And now we are getting to the egg binding itself. The condition when the egg is already finished, placed at the end of the oviduct just before the cloaca (sometimes even in the cloaca), is aptly referred to as

05/2018 F 0Y



#### THE REST OF A PYRRHURA EGG

**PLEASE NOTE - The *Pyrrhura* female behaved normally! In uncertain situations, only the X-ray can show, if all the egg rests are outside the body!**

"egg binding." It could be said that calcium deficiency is **ALWAYS the cause**. In addition, there may be another factor or even more factors that complicate the expulsion of the egg. If a female has sufficient calcium reserves to release for the formation of a quality egg with a solid normal shell, she may run out of reserves in the last stage when calcium is needed for strong contractions of the oviduct muscle and have acute symptoms of hypocalcemia, such as cramps and cardiac arrest. The heart is a muscle as well, therefore needs calcium to function.

Typical symptoms of calcium deficiency are cramps of the whole body, when the female usually distorts into an unnatural hoggie, often on her back, losing consciousness. Sometimes it gives us some time to solve the situation - an infusion of calcium into a vein or, more often, into a bone. Occasionally we don't have time to transport the female to the vet. Symptoms may



Maroon-bellied Parakeet (*Pyrrhura frontalis*)

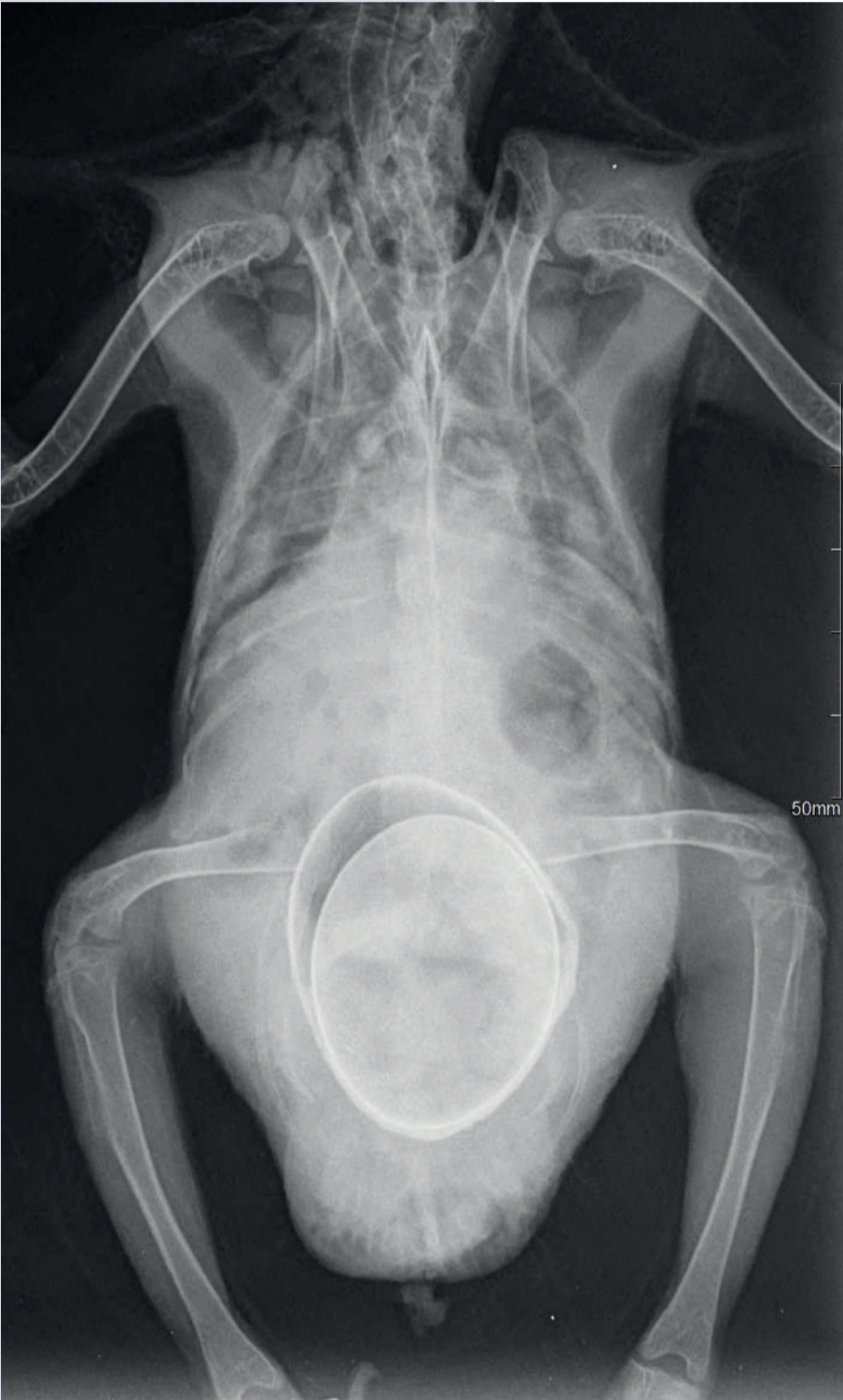
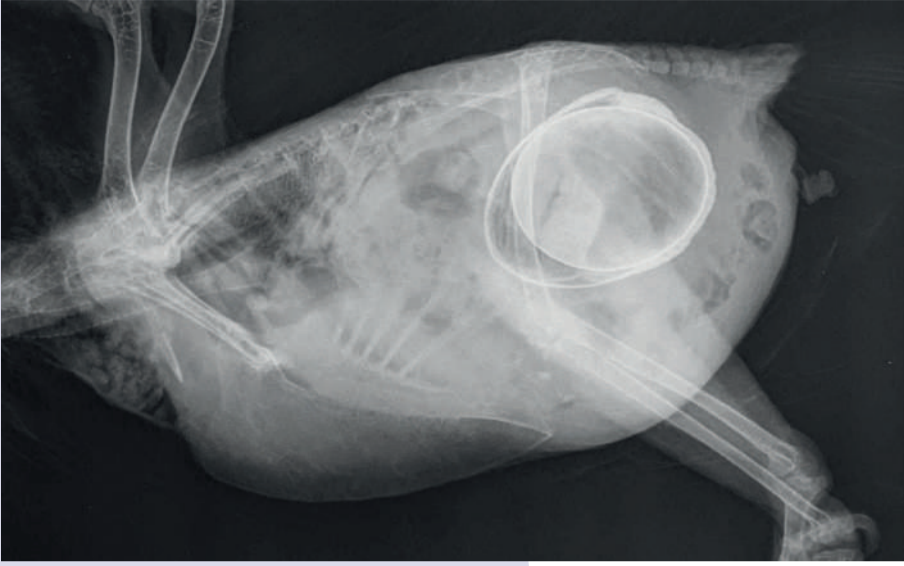
not always be so typical. Females can be just a little sadder, and it can take many days. The diagnosis is then established by taking an X-ray and taking a blood sample.

### Therapy

If the owners themselves find out that their female may have a problem with laying eggs, but is still eating and it is not necessary to solve the condition drastically at the veterinarian, they should take the following steps:

**Start giving considerably higher amounts of calcium, and if the female does not spend time in direct sunlight, supply ready-made vitamin D3. A suitable environment for laying eggs is very important. Besides a nest box with a substrate, it is necessary to provide a warm environment. We heat smaller birds with a lamp, while larger ones simply need to have the heater on. In many cases, raising the temperature will „miraculously“ help.**

However, it should be borne in mind that calcium deficiency plays a major role, therefore should be



An egg inside an egg on both X-rays.



**Galah** (*Eolophus roseicapilla*)

plentifully given to the bird. If the female shows signs of great discomfort, it is better to hospitalize her with a bird vet rather than losing her by waiting. The decision when to take her to the vet is always up to the owner and no veterinarian can remotely advise whether to still wait or go.

The veterinarian will check with an X-ray that it is actually an egg, and will assess what its condition is - calcified, crumpled, etc. The recommended veterinary procedure is conservative therapy for the first 24 hours.

This means infusing calcium, glucose, or other drugs to trigger oviduct contractions and allowing the female space and time to expel the eggs after improving the ionic balance and balancing the metabolic state of her internal environment. Manual efforts to get the egg out, which should always take place under inhalation anesthesia, should be considered after at least 24 hours. Not only because the eggs can be much more calcified and therefore come out better, but especially the female is in better condition and has a much better chance of survival.

The egg may be attached to the oviduct - due to inflammation or stuck owing to drying, as it has been in this place for a long time, and the mucus present does not get between the side of the egg and the oviduct. Some eggs just need to be gently and carefully pushed out, some resist, and despite all the release attempts with various tools, fluids, etc., it is not possible to get the eggs out manually without damaging the egg or oviduct. It is often worth waiting for another day or even a few days, but only if the female looks quite satisfied, eats normally and also behaves in an almost normal way. These cases are rather rare, but hasty interventions can be unnecessary and may endanger or even harm the female.

If the veterinarian decides that the waiting period has passed and the eggs need to be taken out at all costs, surgery can be performed. The prognosis is very poor if a ruptured oviduct and a loose egg are found in the body cavity. If the egg is in the oviduct, it can be surgically removed from it and the oviduct preserved, with the hope that the female will successfully face up to the consequences, heal the mucosa and prepare for the passage of another egg. The risk that this will not happen and that problems will occur again must be considered by the veterinarian according to the condition of the oviduct and, if necessary, the oviduct must be removed. This, of course, ends the reproduction of the female. Even after the removal of the oviduct, the female can mate and externally show her sexual instinct. It is stated that yolk release and yolk peritonitis should not take place, but this can certainly happen, and that brings us to the first paragraph of this article. Therefore, if possible, it is advisable to maintain a functional oviduct.

## Prevention

We will repeat what has been written over and over again and yet not often enough - every parrot should be able to go out in direct sunlight. The feed ration must be balanced, containing a sufficient amount of calcium, especially before the breeding season.

## Conclusion

Egg binding is usually a result of a breeding mistake. Rarely is it a condition where the female is really sick, and the owner wasn't able to prevent it. Application of calcium to the beak, or possibly by injection, solves most cases. 🐦



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**By** Dr. David Waugh  
Correspondent  
Loro Parque Fundación

# Marquesan dancers **venerate** the Ultramarine Lorikeet

**A**rguably the most remote archipelago in the world, the Marquesas Islands, or Henua Enana - the “Land of Men” - in the Marquesan language, are a part of French Polynesia. There are 15 named islands in the archipelago, of which six are recognised as the main islands, and their isolation has resulted in the evolution of many unique life-forms, of which the endemic and exquisite Ultramarine Lorikeet (*Vini ultramarina*) is one.

Although the Marquesas are easily imagined as paradise islands, human-induced changes have created such threats to the lorikeet, locally known as the Pitihi, that is now listed in the IUCN Red List of Threatened Species as ‘Critically Endangered’. All the islands have suffered from very high levels of grazing and fire, with much of the original forest




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**Habitat for Ultramarine Lorikeets on Ua Huka island.**

Foto by Tahiti Nui

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**The on-site conservation team.**

Foto by SOP/MANU

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**Preparing a ceremonial dance costume of poultry feathers dyed in the colours of the Ultramarine Lorikeet.**

Foto by C. Blanvillain

converted to grassland. However, it is most probable that the introduced Black rat (*Rattus rattus*), which eats eggs and nestlings, is the main cause of the lorikeet's decline. Of the original six islands where the Ultramarine Lorikeet occurred, Black rats have been present on three since about 1915, on Ua Pou Island likely since 1980, and confirmed on Fatu Hiva since February 2000. The lorikeet is now extinct on all of these islands.

This leaves only one small place, Ua Huka Island, where the Pitihi still exists, with a total population estimated between 1,000 and 2,500 individuals. Scientists predict that if Black rats colonise the lorikeet would most likely decline to extinction, or almost so, within 20 years. Other invasive species established on Ua Huka that might also pose a threat include bird species that may transmit diseases, an increasing number of feral cats, and

aggressive ants. Given the situation, the Loro Parque Fundación has been providing technical and US\$ 46,709 of financial support to a project of the Polynesian Ornithological Society (Société d'Ornithologie de Polynésie – SOP/MANU), led by landbird biologist Dr. Caroline Blanvillain, to achieve the long-term survival of the lorikeet through protection on Ua Huka and the establishment of at least one additional viable population on another island.

Activities of the project include checking for diseases in birds introduced to Ua Huka, a biosecurity programme against Black rats, and a social awareness programme with local islanders to empower them to help. One prominent way to involve the local community is by using traditional dance to underline to the Marquesan population the natural heritage importance of the lorikeet. Thus, the project is working with

**Ua Huka native wearing a ceremonial headdress.**

Foto by C. Blanvillain



**Ua Huka dancers venerate the Ultramarine Lorikeet in the Marquesas festival.**

Foto by L. Grant/G. Verdon

the Vaiku'a Association, a local conservation and community organisation, to promote the Pitihi in the traditional 'bird dance' performances of the Ua Huka Island dancing troupe, using poultry feathers dyed blue in the dance costumes to symbolise the lorikeet. A magnificent platform to pass on this message is the 'Matavaa', a Marquesan cultural festival which takes place every four years and attracts large delegations from all six inhabited islands as well as artists and travellers from all over the Polynesian Triangle.

The most recent 'Matavaa' took place in December 2019 in Ua Pou, an island striking for its huge basaltic columns, holding the names of the legendary warriors Poutetaunui and Poumaka, and in local folklore symbolizing the entrance pillars to God's house. At the festival 150 inhabitants of Ua Huka danced in veneration of the Pihiti, explaining with attendant

song how this species was spared extinction thanks to its reintroduction to Ua Huka, starting with a single pair in 1941.

Ua Pou is an island targeted for the eradication of the Black rat, and to this end, a comprehensive rat-trapping campaign is ongoing. In Ua Huka, vigilance and actions to maintain the island free of rats are also continuing, including the use of the specially trained rat-detector dog called Dora to inspect merchandise arriving at ports of entry. In tandem there is a monthly campaign with 30 trapping stations on the island's wharves and five stations at the airport. Over the last four years, no black rat has been trapped, and Dora last detected and killed a rat in 2016, but there is no room for complacency. In July 2020, there was an alert when a young rat jumped off a barge bringing goods into the docks of Vaipaee, the most populous settlement.



**In the colours of the Ultramarine Lorikeet, a helicopter makes a drop of rat control supplies.**

Foto by SOP/MANU

**The sun sets behind Ua Pou island.**

Foto by C. Blanvillain



**Evidence of the rat trapping efforts on the island of Ua Pou.**

Foto by C. Blanvillain



**A pair of Ultramarine Lorikeets mutual preening.**

Foto by C. Blanvillain



**Dora the rat-detector dog sniffing through incoming merchandise at harbour in Ua Huka.**

Foto by SOP/MANU

Only a few years ago, this event would probably have gone unnoticed but now, with much more awareness, the sailors of a local passenger freighter “neutralized” the rat while it was swimming towards the shore. While Dora and her handlers continue with the marine cargo inspection, the communication campaign continues and is having positive results, not least with the continuing commitment of the shipping companies and the airport and autonomous port authorities.

The latter has strengthened the biosecurity of the docks against rats and has made lookouts mandatory. A poster has been circulated which not only highlights the threats that rats pose to the Ultramarine Lorikeet and other native species, but also that they can spread



**Poster warning of the threats posed by introduced Black rats.**

Foto by C. Blanvillain

harmful diseases to humans and cause substantial economic damage, not least to the coconuts, which form the basis of copra production, a vital industry in Ua Huka.

Above all, the traditional dancing, so deeply ingrained in Marquesan culture, will continue to exalt the Pitihi and add to the ground-swell of support for its conservation. 🇫🇯



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# White-bellied Parrots

## Clowns among parrots

**By** Christof Götz, Bärbel Köhler

Bärbel Köhler from Germany has been breeding White-bellied Parrots (*Pionites leucogaster xanthomerius*) for many years. She wished to have pets that would rear their young ones. The male's name is Clyde, and he is fifteen years old. Unfortunately, his partner, who was fourteen, died very suddenly some time ago. It was clear to Bärbel that Clyde could not stay alone long, and she also didn't want him to get too attached to her. Bärbel agreed with an interview for the **AWIPARROTS worldwide**, and in the following lines, she will reveal how it all continued.

**AUTHOR**

**Bärbel Köhler is the owner of two White-bellied Parrots, which she has been successfully breeding as well. She studied laboratory medicine at the Wilhelminian University of Muenster. After graduating, she also worked at the university, where she carried out laboratory research for paediatric oncology and heart surgery. Her other interests include chemistry, clinical chemistry, and tropical medicine. During her life, she also worked in Congo (Doctors Without Borders), where she was responsible for laboratory research and vaccination assistance. As she lived in Muenster, she began working with the Allwetterzoo located near her home. Since 2000, she has been working as a Business Development Manager at Abaxis Europe GmbH. Eighteen years ago, she got in touch with Loro Parque and was invited to participate in analytical work with Dr. Lorenzo Crosta. She also visited the sites of conservation programmes for Spix's Macaws and Lear's Macaws, where she engaged in laboratory diagnostics.**

**Bärbel, in view of the fact that you had wanted to prevent Clyde's fixation on you, I assume you started looking for a new female soon?**

Yes, that's exactly what happened. Clyde and the original female had reared many chicks, and when he lost her, I tried to get a new one as soon as possible. However, it was not easy at all! For instance, I came across a situation where someone offered a female, but later I learned that the person wanted to sell her because of self-mutilation (feather-plucking). And I didn't like that at all. So before the purchase, I tried to find out as much as possible to choose a healthy and nice counterpart for Clyde. Eventually, I was lucky and found a female that matched my ideas. But then a question arose whether Clyde accepts the female?

**How did the two get used to each other? Did you place the new female with Clyde directly, or did you opt for another method?**

Due to the age of the male, I chose to let them get used to each other rather slowly. I organized everything in Dr. Britsch veterinary practice (Karlsruhe). The parrots were placed in two separate bird cages. Their feeding bowls were installed at the same height so that the two caiques could see each other. After a few days, they were able to eat synchronously; but better to say „at the same time“ therefore a tunnel was created between the cages so they could visit each other. After one week, they occupied only one cage. During this period skirmishes took place as well, but the situation was under control

**Indoor aviary**

**While Polly is incubating her eggs, Clyde is looking out of the nest box to make sure that everything is ok outside and that there is no enemy nearby (as in the natural habitat).**

in the veterinary practice. Simply, the professionals made sure that introduction went well and that nothing happened to the parrots. After three weeks, I brought the caiques home, where a completely newly equipped aviary awaited them, having a large number of branches and various entertainment options. I was very curious what the reaction would be when they moved into a new home. Everything went well. I must also mention that I treated both of them the same, never preferring Clyde. Polly, the new female, needed more time to start trusting and get used to the new environment, but luckily, I succeeded.



**Careful control of the newly hatched chick after a few hours. It is important to have gloves and disinfection. I check if everything is ok and if the chick is well fed by the parents.**

### **Can you tell me why you decided to go for White-bellied Parrots? What was your motivation?**

White-bellied Parrots remind me of flying „snowballs“. In Brazil, where they come from, they do not fly long distances and spend the night in cavities. They are clowns among parrots. I fell in love with them in Loro Parque during my work stay there, and that's when I thought they were the right species. It was a clear and definite decision. People often ask me what caiques are really like. I can say with a clear conscience that the most important thing for them is not to be bored. Thus, I highly recommend that you think twice before acquiring them. One must be able to provide them with such an environment where the parrots find entertainment, can scream and also fly about. An indoor and outdoor aviary is the best option.

### **Can you describe your breeding facility in more detail?**

At home, I have an indoor aviary for the parrots measuring 1.4 x 1.4 x 2.15 m (length, width, height), and inside there is a plastic nest box with the base of 25 x 35 cm and the height of 25 cm. A wooden drawer that can be easily replaced is located inside the nest box (see the photos). In the middle of the drawer, there is a nesting hole and two layers of bedding on it. The lower part consists of very fine sawdust and the upper layer of wooden chips. The drawer can be replaced at any time, which comes in useful from the hygienic

point of view when the caiques have young ones. Cleanliness is very important, so I sanitize both the nest box and the aviary with disinfectant F10.

The aviaries are equipped with perches made of branches of various thickness and shapes, and the White-bellied Parrots can play with pieces of wood randomly laid out. I regularly try to add fresh branches with leaves - just all natural, no plastic toys. What the caiques really love are rolls from paper, where I sometimes hide their food. Searching is so interesting for them! Naturally, they have swing feeders, which I can operate from the outside. The bowls can be snapped shut so that the parrots cannot take them out, as it often happened that Clyde spilt all the food.

A bathing tub is also available for the parrots. There are four lights at the top side of the aviary and further bird lamps in the middle for winter. The parrots have a coloured fluorescent lamp in the back of the aviary, which is active in the darker months. I set different colours, sometimes only orange, green or yellow. Alternatively, I set slow changes of these colours and the parrots take pleasure in observing that. Polly and Clyde always come close to sit next to the fluorescent lamp and peek curiously while looking around. In the background I will play the music of the rainforest (sounds of birds, waterfalls, rain). The sight of them is fascinating at that moment!



**If I'm not mistaken, you also have an outdoor aviary, don't you?**

Yes, I do. I had wanted to provide my White-bellied Parrots with fresh air, so I built a 4.2 m long aviary with a height of 1.7 m in the garden. The front and back of the aviary are roofed and there is a hollow trunk with no upper lid at the back, which can serve as a nest. However, there is also a small wooden nest box with a perch and a roof in the aviary, where parrots like to hide when something in the surroundings disturbs them, such as a flying predator. This is typical behaviour of the caiques in the wild. My parrots are in the outdoor aviary all day, but as soon as the female is about to lay an egg, I let them nest in the indoor aviary. When the young ones leave the nest, I move them along with the parents to the outdoor aviary.

**Evidently, caring for your White-bellied Parrots is your pride and joy. I'm certain you have the same approach to their nutrition.**

I had often wondered which food is best for my White-bellied Parrots. First, I found out what they feed on in their natural habitats. I read a lot of information about



**Presentation of different fruits and vegetables for White-bellied Parrots - the big variety is necessary.**

rainforests and food sources there. Subsequently I tried to give them the most natural food possible. Papaya and passion fruit are their absolute favourites! In addition to that, I feed them oranges, tangerines, a bit of apple, grapes and pears. They also enjoy carrots, lettuce, cucumbers (although not preferred), red peppers, chilli peppers. I only serve pomegranates to them in the outdoor aviary. As a basic mixture of grains, I use Versele Laga, and after the nesting period, they also get pellets and a bit of fruit and vegetables

During the period of sitting on eggs and rearing, I add a commercial egg mixture. When the chicks are

**The entrance hole from the nest box. I put lofty greenery with fresh twigs because the parrots are scared during the breeding season and so they can have their privacy.**

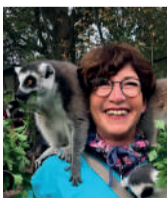
a little bigger, I add hard-boiled eggs. I sprinkle everything with Korvimin (mineral supplement) and add calcium every two days. Furthermore, the parrots have regular week-long treatments when they are given Ac-i-prim (lactobacilli).

**Do I see it right that there has never been a problem in rearing the young ones and the parents have always fed them without any problems?**

Yes, they are just wonderful. Polly disappears into the nest box, sits perfectly, and takes care of the chicks. The truth is that she gets pretty aggressive before laying and for about four weeks after the young ones have hatched. In the first week, I avoid disturbing Polly much, but I weigh the chicks daily after that. I make sure that the nest box is kept clean. Interestingly, Clyde is not aggressive during the nesting season at all.

**The photos show that you have a beautiful relationship with the parrots. What is most important for this species? I'm sure you have already discovered.**

As I have already said - the White-bellied Parrots must not be bored. Every interesting change, new branches, and miscellaneous feed is very important for them, and the possibility of staying outside is also ideal. Twice a day, I more intensely devote myself to them and train them to go on the perch by saying "place". They are not allowed to sit on the cupboards at all - I taught them quickly not to do so. Otherwise, they can explore the surroundings of the aviary without any restrictions. The most you can give your parrots is the possibility of a partner, courtship, mating, sitting on eggs, and eventually rearing young ones. The White-bellied Parrots rank amongst the very bright and sociable species. They are clowns among parrots! Nevertheless, they only surface their intelligence, curiosity, and vivacity in a pair or in a flock. 🐦



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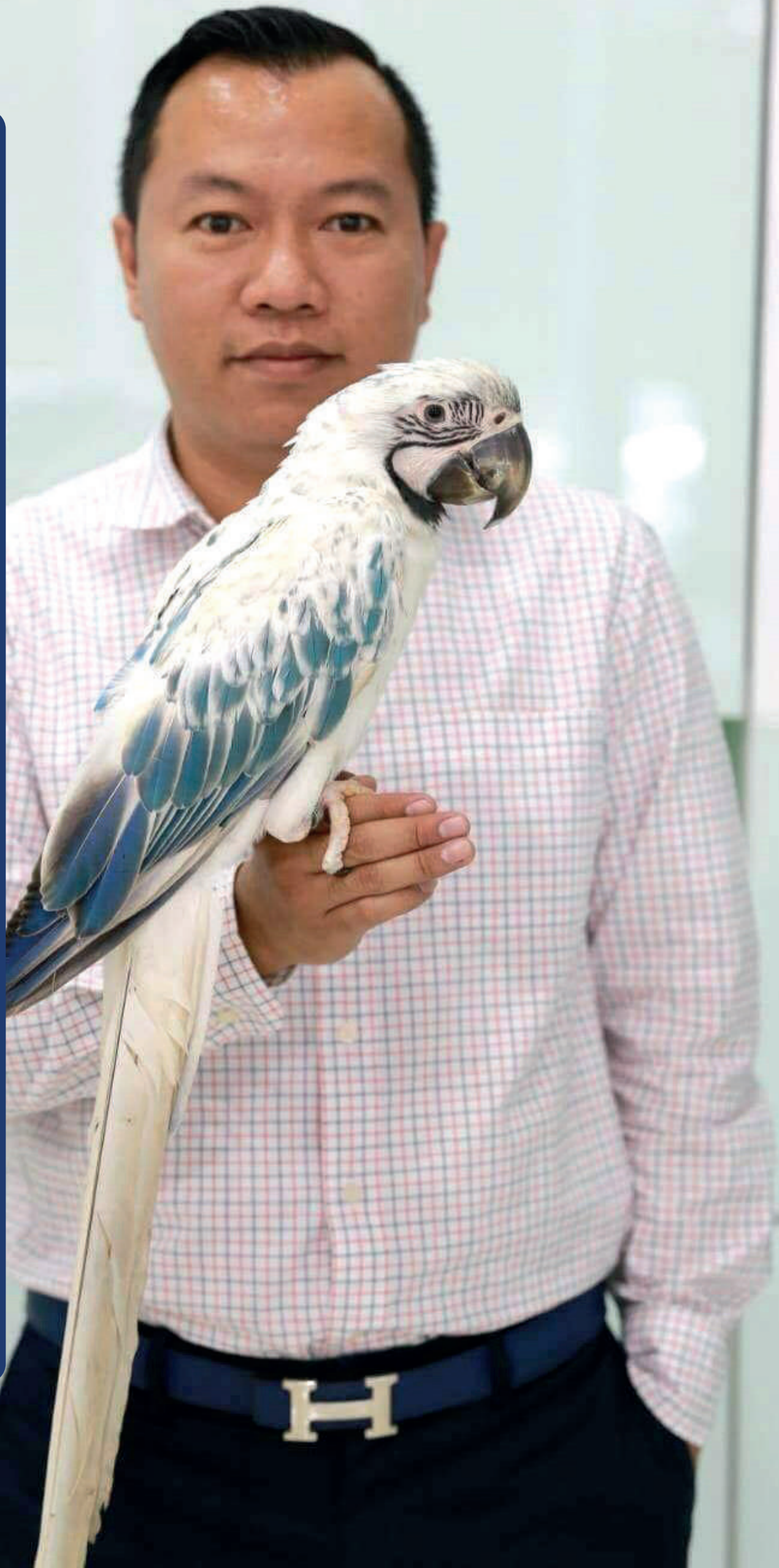
**Wichai Danrattana**  
Thailand

When you start to look after birds, what do you think is the first step? "Fondness" or "affection"?

For me, it started from a "relationship". I've used this word since I was young. I'm the boy who just loves birds and I can remember that my first bird was a Sun Conure (*Aratinga solstitialis*). It's the first relationship between me and birds which took place over 10 years ago. The price of a Sun conure at that time was 800 THB and a Hyacinth Macaw was 280,000 THB. I thought it was so expensive and foolish to buy it and that the person, who buys it, isn't only rich but also stupid. I then went back on my word because I now have 10 pairs. It seems like I need more passions and challenges due to fact that I only have pure birds, so really want mutation birds which are unique.

I have observed bird behaviours; breeding, incubation and everything else that a bird lover should know because I love this feeling when I see their growth.

**Birds are part of my life.**



**By** Martin Rašek  
& Wichai Danrattana

# Blue and gold macaw mutations

**W**hen we say a “parrot mutation”, most of us imagine a whole range of differently coloured budgies, Neophema parakeets, lovebirds, Afro-Asian ring-necked parakeets, or other medium-sized species. Only a few people will think of colour mutations in one of the largest species – blue and gold macaw (*Ara ararauna*). And yet it might be surprising to many that there have already been a number of mutations in this species, which is not one of the most frequently bred ones. Individuals mature at 3-4 years of age and the first offspring can be seen as late as in the eighth year of life. Naturally, a large portion of patience and luck is essential, as for mutation breeding it is necessary to purposefully put together pairs according to their genetic prerequisites.

Blue and gold Macaw  
- combination of the Blue  
and Opaline mutation.





**Blue and gold Macaw  
- Opaline mutation.**



**Blue and gold Macaw  
- combination of the  
Blue and Opaline  
mutation.**



**Blue and gold Macaw  
- blue mutation.**

### So which mutations are there?

Nowadays the blue mutation, recessive ino mutation, opaline mutation, grey mutation, cinnamon and recessive pied mutation, recessive mutation, and finally the yet unexplored pearl mutation are known. All the mentioned mutations are really beautiful, and those who are lucky enough to have such a mutation in their breeding facility can rightly consider it a jewel. Certainly there are a number of breeders as well who only prefer naturally coloured individuals, nonetheless those who have fallen under the spell of colour mutations will certainly agree with them.

The breeding of these mutations, especially their stabilization after the first occurrence, requires great determination. Just imagine that a mutation individual appears in your nest, or you buy it for a considerable amount. Further breeding will require mating with a natural individual and the rearing of young ones capable of splitting. When you succeed in a year, two or ten, you will wait for another 4 or more years before you pair the young one capable of splitting with the mutation parent and, with a little luck, rear the mutation

offspring. Then, of course, you will need new natural blood stock, etc. You will get a stable breeding strain in 20–30 years at the earliest.

A similar or even more complicated process and a difficult path will await you if you want to breed a combination of two or even more mutations. One life-time may not be enough.

Let's look at the breeding of mutation blue and gold macaw in a Thai breeding facility, where, despite the abovementioned, they have already managed to breed a combination of opaline and blue mutations.

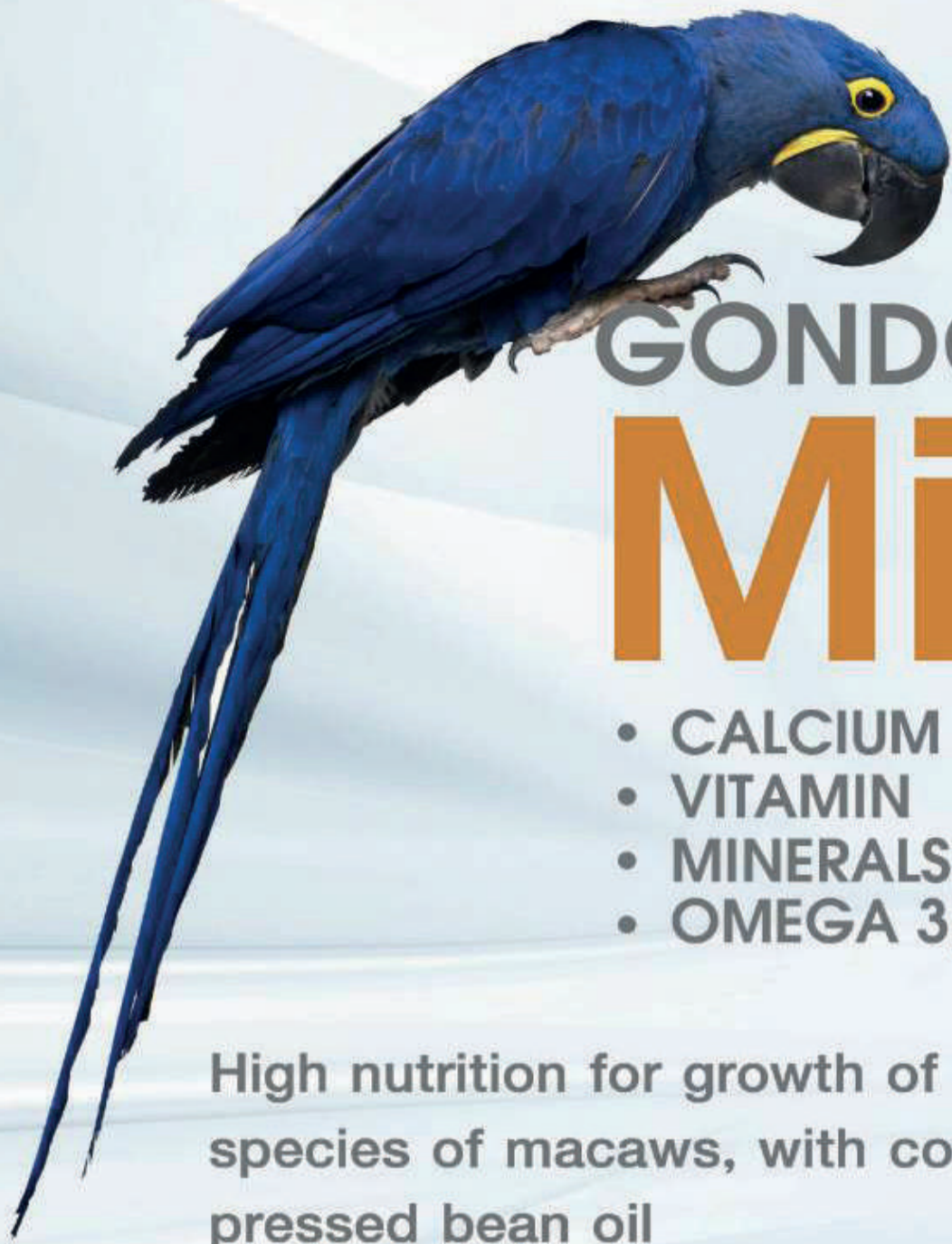
This combination is sometimes incorrectly called a silver mutation. However, this does not change the fact that the result is a beautiful individual (judge for yourself!) who combines the contrast of the blue mutation, i.e. the blue-white colour, with the opaline mutation, which ensures a change in the distribution of eumelanin, i.e. a dark pigment on the wings and back parts, including the tail. [AS](#)



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Drying by the lyophilisation method - a technique that preserves biological materials such as proteins, plasma, etc.

E-mail: [sittiche@centrum.cz](mailto:sittiche@centrum.cz)

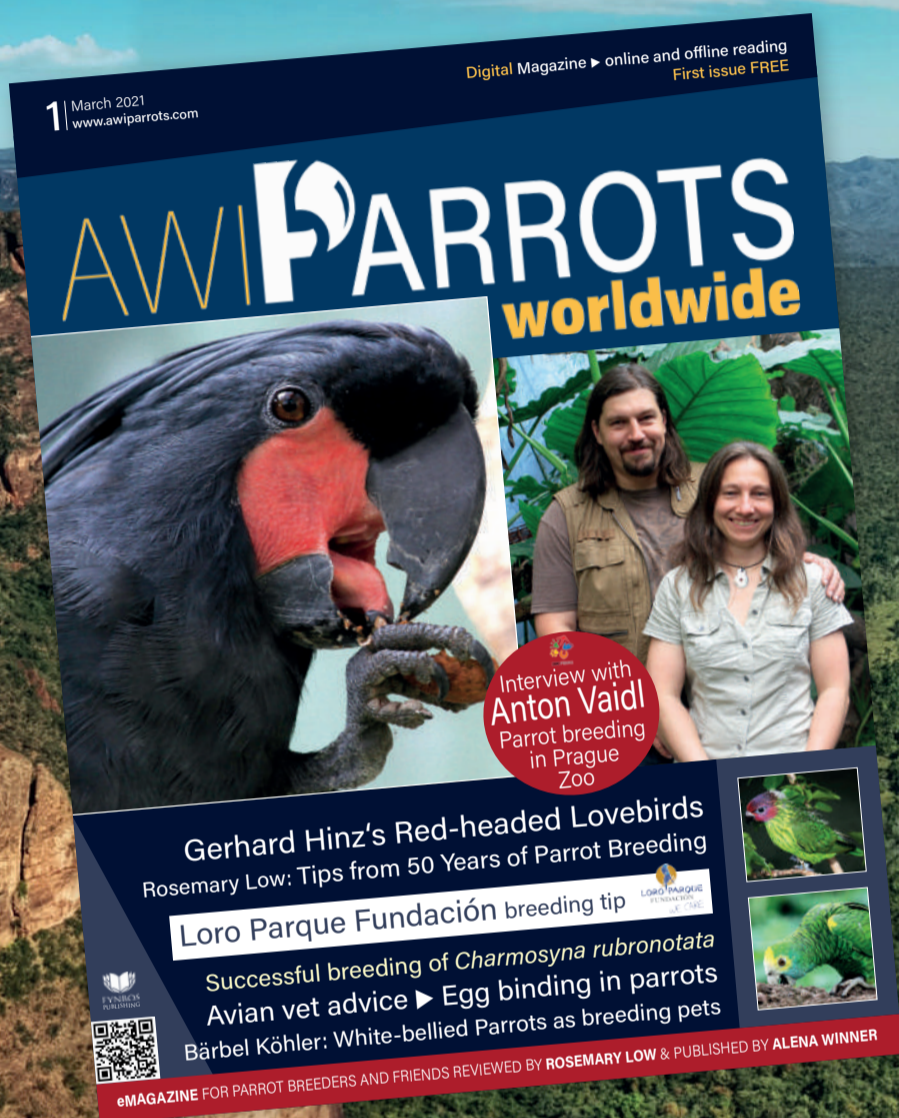
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# AWI PARROTS

worldwide



## About us

We are a new monthly digital magazine providing you with articles from experienced parrot breeders, avian vets, biologists, ethologists and pet owners from all over the world.

## Guarantee of expertise

Our editors are experienced practitioners and experts in the field of parrot breeding.

## Ethic journalism

We do our best to prepare high-quality and trustworthy articles for you that will help you in parrot breeding or taking care of your pets.

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