

# PSITTASCENE

Magazine of the WORLD PARROT TRUST



Summer 2022



Glanmor House, Hayle  
Cornwall TR27 4HB UK  
info@parrots.org +44 (0)1736 751026  
www.parrots.org

### ABOUT THE WPT

Capture for the live-bird trade, habitat loss and other factors put wild parrots at risk. Nearly 30% of all parrot species are considered by IUCN to be at risk of global extinction.

As an international leader in parrot conservation and welfare, the World Parrot Trust works with researchers, in-country organisations, communities and governments to encourage effective solutions that save parrots.

Since 1989 the WPT has grown to become a global force that moves quickly to address urgent issues and support long-term projects. Over that time WPT has led or aided conservation and welfare projects in 43 countries for more than 80 species of parrot.

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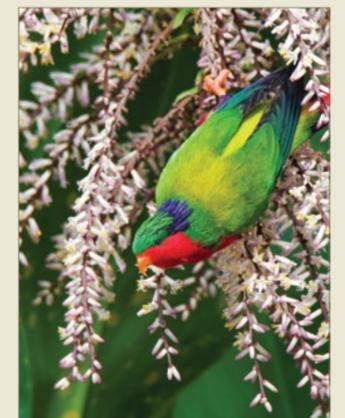
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### ON THE COVER

Photo © Heiarii Tuihei

The **Rimatara** or **Kuhl's Lorikeet** (*Vini kuhlii*) is a tiny island-dwelling parrot found in the South Pacific. Its diet includes the seeds, nectar and flowers of a variety of plant species.

Learn more on **Page 9** in *Rimatara Lorikeet: Nest Monitoring Program*.



a message from...  
**Alison's desk**

From its origins in the west of England, the tentacles of the World Parrot Trust have spread far and wide. Articles, news and updates in this issue of PsittaScene come from Mexico, Puerto Rico, Polynesia, Zambia, Nigeria, Liberia and Ukraine.

In Mexico we hear about the field work to protect the Thick-billed Parrot. The team there is installing nest boxes and tracking the birds, making very interesting new discoveries along the way. Personal discoveries in her travels to see the Puerto Rican Amazon come from WPT's Melodie Krieger; based in Canada she is our Communications Manager. From Polynesia there is a heart-rending report arising from close monitoring of Rimatarā Lorikeet nests, meanwhile from Zambia we learn about the sampling of lovebird DNA and in Nigeria and Liberia about the conservation of Grey Parrots.

Following our appeal to support parrots effected by the war in Ukraine, we include an update from the organisers and volunteers who have helped to get birds to safety and provide food for others across the country.

We include a tribute to the life of Avin Deen, our volunteer representative in India who has sadly died at a young age, with our grateful thanks for his work for parrots.

So many people are involved in the very wide range of different ways to help the parrots of the world. Every effort is worthwhile for these wonderful birds.

With best wishes,



*Alism*

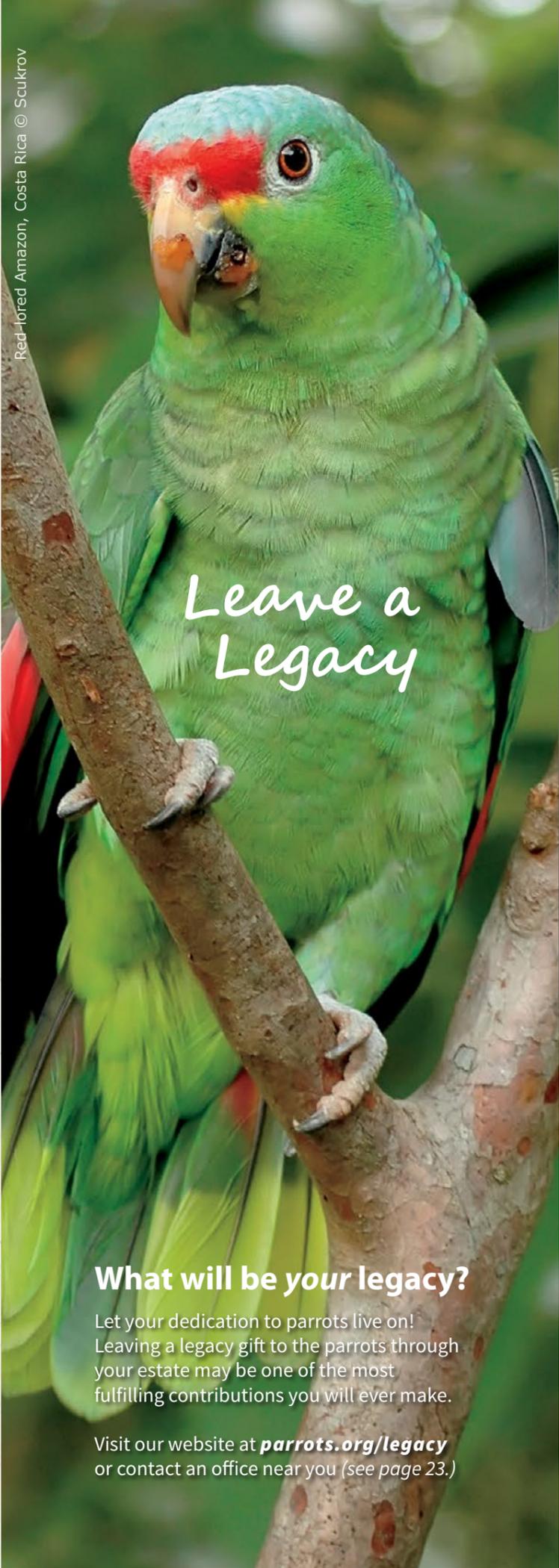
Alison Hales  
WPT Chairperson

**What will be your legacy?**

Let your dedication to parrots live on! Leaving a legacy gift to the parrots through your estate may be one of the most fulfilling contributions you will ever make.

Visit our website at [parrots.org/legacy](http://parrots.org/legacy) or contact an office near you (see page 23.)

Red-lored Amazon, Costa Rica © Scukrov



Leave a Legacy

**GETTING TO KNOW THEM:**

**RESEARCH AND THE FIGHT TO SAVE THICK-BILLED PARROTS**

by Javier Cruz, Francelia Torres and Maria de los Angeles Olvera

All photos © Javier Cruz

High in the often chilly mountains of the Sierra Madre Occidentale of Mexico, the weather can switch from sun to torrential downpours in an instant. The fog can be so thick that it can be hard to see anything at a distance and the hills are steep and unforgiving. Snow sometimes falls at this altitude and hailstorms are common. In recent years, droughts have become prolonged and extreme.

An environment like this can be difficult for a human to navigate, but here lives an unlikely animal — a parrot — which over millennia has evolved to thrive in the harsh conditions.

**T**he Thick-billed Parrot (*Rhynchopsitta pachyrhyncha*) is a medium-sized parrot that once ranged as far north as southwestern United States. It now only lives in the mature primary growth pine forests of the Mexican mountains at altitudes up to 3,000 metres (9,840 ft), where it feeds mainly on the seeds of pine species – Arizona, Mexican white, Durango, Mexican piñon,

Ocote and Weeping pine. Occasionally items like cherry fruits, agave inflorescences (the flower head of the plant including stems, stalks, bracts, and flowers) and the buds of various pines are taken. The parrots have also been seen raiding the granaries of Acorn Woodpeckers (*Melanerpes formicivorus*).

Thick-billed Parrots range widely and roost communally on

inaccessible cliffs or in densely packed trees. Breeding coincides with pine seed ripening in May and continues to October. Each pair lays three eggs on average, but usually only one chick survives to fledging, mainly because of fluctuating food supplies.

Some do survive however, and once they have fledged the families migrate to their wintering sites in the south where they stay until the end of April. At the start of May they travel back to their breeding sites to begin the cycle of life again.



## Human pressures

The threats to these parrots are varied and complex. This is where Organización Vida Silvestre A.C. (OVIS) comes in — for decades the conservation group’s researchers have been working to protect these special birds. Over time they’ve discovered why the wild population has seen serious declines but is more or less stable now, with 2,174 individuals having been counted as recently as 2011 during a very dry year.

One hundred and seventy-seven pairs were identified but there are some sites where breeding pairs were reduced or lost. The main reason for

their downturn is habitat destruction, especially the cutting of older (up to 1,000 years) Douglas fir (*Pseudotsuga menziesii*) trees. These parrots raise their young in tree cavities hollowed out by other bird species, so their disappearance has made it difficult for them to find nest-sites. With the loss of trees also comes the absence of pine seeds, their main food. And with prolonged droughts water sources, essential for their survival, become scarce.

Poaching, once a significant problem, is under more control now but the OVIS team is watchful. Naturally occurring or human-caused wildfires, difficult to control in dense stands

of trees, are now more frequent as a result of longer dry periods. And the cold, rainy weather can sometimes take unprotected chicks. All of these dangers together with even one poor breeding season puts the wild population at further risk for decline.

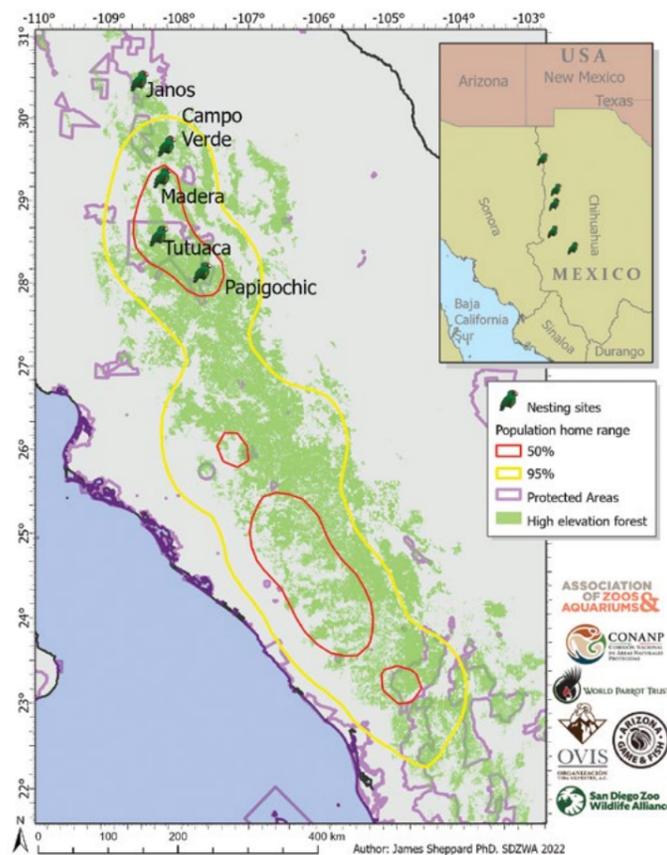
Recently, other threats have come to light. The team was surprised to learn about other animals that can out-compete the parrots for food or predate adults and chicks. Bobcats, raccoons, skunks, White-nosed Coatis, jays, Northern Goshawks and two different squirrel species cause issues for Thick-billed Parrots. Motion cameras have spotted bobcats scaling up metres-high trees to access adults and chicks in nests. Raptors can take fledglings as they leave the cavity and smaller mammals can prey on eggs.

The dangers don’t always come in large sizes — there’s an endemic ectoparasite that lays eggs on the chick under its wings, which ultimately prevents it from being able to fly. In other instances, mortalities have been reported in chicks just over a month old where they were found with empty crops, were extremely thin and presented with irregular physical development. Significant loads of bed bugs (*Cimex* spp.), which feed on the blood of birds and mammals, were recorded in these nests. They can cause chicks to become so poorly that they die or the adults abandon the nest, thus reducing the overall breeding success of the population.

For habitat lost from forest fires, new technology for early detection of natural or man-made burns is being obtained at the regional level from OMAFOR Silvicultores Unidos de Occidente de Chihuahua AC, a forestry organisation.



*Satellite transmitters are a key component for understanding the overall conservation needs of the Thick-billed Parrot*



**FIGURE 1**  
*Wintering, migratory and breeding sites of Thick-billed Parrots generated from solar-powered satellite transmitter data*

## Towards a better understanding

Since 1998, the World Parrot Trust (WPT) has supported specific actions to gain better insight to help protect the remaining Thick-billed Parrots. Recently WPT has funded OVIS’ work to discover more about and protect the entire life cycle of these parrots throughout their current range. Finding out where the parrots travel is vital to an overall understanding of their conservation needs. This involves attaching cutting-edge satellite transmitters to the birds and monitoring their movements.

In 2019 and 2020, birds in five breeding populations in the mountainous portion of Chihuahua were tracked. In 2022, the team is installing 30 new lightweight, solar-powered transmitters provided by the San Diego Zoo Wildlife Alliance, which also collects and analyses the data. The institution has now conducted

three years of Thick-billed Parrot tracking: 2019, 2020 and 2021, and are planning a 4th deployment for September of 2022. They have collected 32,000 location fixes from transmitters attached to 30 parrots. These devices have helped to identify important water and mineral sources, and feeding, roosting, wintering and transit areas. Thanks to the technology, the team is gaining a better idea of where these enigmatic birds go.

## Data to inform vital conservation actions

With the information provided by the transmitters installed in 2019 and 2020, the team now better understands the Thick-billed Parrots’ nesting cycle or *phenology* and as a consequence their work to protect these parrots will be refined as it moves forward. Researchers learned that four breeding populations

travelled south along very similar migratory routes through the highest peaks of the Sierra Madre Occidental, and then they came together and mixed for a few days on high peaks in the southern mountains of Chihuahua, Durango and Nayarit. During their journey they travelled between 60 and 150 kilometres per week to the mountainous region of central Nayarit. The maximum distance they flew to the south was 648 km from the Área de Protección de Flora y Fauna (APFF) Tutuaca in Chihuahua; the average was 612 km ± 49.8 km. The furthest the birds flew south was the State of Nayarit. Their wintering range was originally thought to be in Durango, further north.

In the middle of the team’s analysis they identified 14 priority areas that the birds used after the fledglings left their nests, and these were classified into three categories: priority sites near their breeding areas in Chihuahua, winter stopover sites in Chihuahua and Durango and



**Left and Right:** The team gives health checks and attaches satellite transmitters to wild birds.

wintering sites in Durango. These areas are critical to the overall plan to protect Thick-billed Parrots. Helping these birds to breed successfully has also become a top priority. Since 2008, with support from the WPT to Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM), the team has successfully tested artificial boxes that help replace lost nesting trees. To the team's relief, one-quarter of the parrots have taken to the boxes; a good result. Over time modifications have been made to make them attractive to more birds.

As it turns out, certain populations are now relying more and more on these artificial nests. Two issues encountered, however, is how many and where the nests are installed, which the researchers have to be strategic about in order to keep trappers at bay. And thankfully, there are ingenious methods to physically protect the nests from hungry wild felines — anti-predator metal flashing is installed, not at the base of the tree but higher as the cats can spring great heights to access nests. Sometimes they use the main

nest tree and other times they scale the tree next door to reach the chicks. As a result, all trees within leaping distance of the main nest have to be modified, too.

The team have considered, trialed and carried out all of these things and more to protect the Thick-bills. The toll on the people carrying out this work is weighty: they are kept busy travelling up to 1,200 km at a time for surveys in remote, steep areas and their efforts take place during the breeding season, which is also the rainy season. Handling chicks high up in nest trees during the frequent downpours can be dangerous; these storms are often accompanied by lightning. The team's packs are heavy with 60-metre ropes, spikes and enough food to keep them going for the day's work.

Most of all they are concerned for the future of these hardy parrots. In spite of the challenges there is great satisfaction amongst everyone in knowing they are working to better understand and save one of the rarest parrots in Mexico. 📍

#### ABOUT OVIS

For two-and-a-half decades, Organización Vida Silvestre A.C. (OVIS) has been dedicated to conserving ecosystems and wildlife species in Mexico. The group works mainly in the northern states of Mexico with different species such as the Golden Eagle and a number of hoofed mammals, as well as in protecting wetlands and mangroves. They have, all combined, decades of science and conservation experience. Their work with Thick-billed Parrots began in 1995.

#### Collaborators

Arizona Game and Fish Commission (AGFC), San Diego Zoo Wildlife Alliance, US Fish and Wildlife Service, World Parrot Trust.

**The island of Rimatara is home to one of the world's most beautiful birds, the Rimatara or Kuhl's Lorikeet (*Vini kuhlii*) locally known as the 'Ura. According to bird counts over the last 27 years by the Society of Ornithology of French Polynesia and more recently by the local conservation association Rima'Ura, populations of the Rimatara Lorikeet have declined by over 50%. The decline is a direct result of habitat modification due to an increased demand of land use for construction of housing and farming of cash crops such as potatoes and carrots.**

# RIMATARA LORIKEET

## Nest Monitoring Program

by Samuel Ravatua-Smith, PhD

**I**n order to counter the impacts of urban development and detrimental farming practices on the Rimatara Lorikeet, the Rima'Ura Association started a program to identify and protect their nesting sites as well as the century-old trees on the island. These trees are labeled with a cross and triangular panel prohibiting their destruction.

To identify secondary causes of these lorikeets' declines, the Rima'Ura team developed a program to monitor lorikeet nests on the island in order to determine threats from predators. As a specialist with a background in environmental studies and multimedia engineering, I integrated the project as the director of the nest monitoring program, which the French Office for Biodiversity funded. I proposed a system that would allow us to effectively monitor the nests and reduce human intervention as much as possible via the use of Wi-Fi connected trail cameras. I configured the cameras to record 30-second videos when they detected motion, which I could then verify from the foot of the tree.



**Top, left:** Video stills of a rat intruding into nest cavity. **Top, right:** White-tailed Tropicbird attack. **Opposite page, left:** Author Samuel Ravatua-Smith inserts an endoscope to check a lorikeet nest. **Opposite page, right, top:** Rimatara Lorikeet nest with two eggs. **Bottom:** A newly-hatched chick.

To start, we identified nests in trees that were safe enough to climb and installed our trail cameras. Nests were found from 3 to 20m high and were seen in a variety of tree species, including *Falcataria moluccana*, *Pistacia vera*, *Barringtonia asiatica*, *Terminalia glabrata*, *Cocos nucifera* and *Inocarpus fagifer*.

For the 2021 to 2022 nesting season (September to February), we installed cameras at 14 different sites. Out of 14 nests, only nest site 12 was large enough and positioned in a way that gave our camera a view of the interior. Through this, we discovered on December 27th, 2021 that a White-tailed Tropicbird (*Phaethon lepturus*) had attacked lorikeet eggs at nest site 12. The tropicbird pierced and destroyed the eggs but did not consume them. Polynesian rats invaded the nest shortly after and cleared the remnants of the egg.

This act of predation by a natural competitor had never been documented before. Unlike their coastline ground nesting cousin the Red-tailed Tropicbird (*Phaethon rubricauda*), the White-tailed Tropicbird nests in cliffside cavities or large tree orifices.

Additionally, it is rare to see habitat conflicts between seafaring and terrestrial birds. However, due to the small size of the island and lack of nesting habitat, White-tailed Tropicbirds have come inland and attacked lorikeet nests to ensure the future of their own population.

It was a pivotal discovery in our understanding of the ecology of the species. I classified the nesting attempt as a failure due to the attack by the White-tailed Tropicbird and continued monitoring the other nests.

By the end of January 2022, the nesting season was coming to an end. While ten of the nests successfully fledged, three failed due to repeated intrusions by Polynesian rats (*Rattus exulans*) and one due to attack by the White-tailed Tropicbird in nest 12. I continued to closely monitor nest 12 and observed an increased frequency of visits in mid-February. The lorikeets were digging the nest and behaving in a manner that led us to believe they were going to make a second nesting attempt. Eventually, our video images from March 2nd 2022 revealed two eggs in the nest and confirmed that the couple had successfully initiated a second nesting attempt.

I made frequent visits to the nest in order to check the status of the eggs. Although we were excited for this new nesting attempt, we were very wary of a repeated attack by

the tropicbird. On the 14th of March our camera images revealed that one of the eggs had successfully hatched. It was rewarding to see the lorikeets succeed after failing their first attempt and for the first time in history we had images of a newborn Rimatara Lorikeet.

However, that victory was short-lived. Only 5 days after hatching, the White-tailed Tropicbird returned to the nest. Fortunately, there was an adult incubating the remaining egg and nestling and the tropicbird did not attack. After eight days, the nestling began vocalizing sounds that could be heard by our trail camera.

Tragically, nine days after the chick hatched the White-tailed Tropicbird returned to the nest, pierced the remaining egg and killed the nestling. Upon its return, the lorikeet discovered the destruction

the tropicbird had caused. Watching the images, I couldn't help but feel sad for the lorikeet as it silently inspected the nest and nudged its unfortunate chick. Within days, Polynesian rats were attracted to the nest and consumed the remaining contents. Once again, the second nesting attempt was classed as failed due to attack by the White-tailed Tropicbird.

At this point in time we had become somewhat emotionally involved, as this nest was different from the others. We could see what was happening inside of the nest and we had been rooting for them since we became aware of their second successful nesting attempt. To our surprise on April 10<sup>th</sup>, 18 days after the second attack, the lorikeet couple returned to the nest. The question remained: would they make a third nesting attempt?

Today I continue to closely monitor the nest and if a third nesting attempt is confirmed, I will immediately climb up and install a barrier composed of hardwood branches such as ironwood (*Casuarina equisetifolia*), in order to reduce the opening of the nest so that the lorikeets can enter but the tropicbird cannot.

To be continued.

Although this is a tragic account of nest predation and habitat competition, it has given us valuable insight into the ecology of the species and previously unknown factors that have contributed to the lorikeets' decline on Rimatara over the past two and a half decades. In retrospect, the lorikeets of Rimatara Lorikeets were not the only species adversely affected by habitat modification for housing and farming on the island.



As large trees have been destroyed, the White-tailed Tropicbird has also met with increased pressure for securing available nesting sites. Fortunately, most of the lorikeet nests on the island have entries that are too small for the tropicbird to enter. However, I've observed the tropicbird investigating

numerous lorikeet nests and other large tree cavities and I'm highly convinced that they systematically destroy eggs and nestlings in all of the nests they discover and can access.

The good news is with the support of international organizations

such as the French Office for Biodiversity and the World Parrot Trust, we will continue our research to create conservation programs designed to better understand and protect the rare and endangered Rimatara Lorikeet. 📺

© Heiarri Tuihei



**ABOUT THE AUTHOR**

Samuel Ravatua-Smith, PhD is a specialist in multimedia engineering and communications. He combines conservation practices with audiovisual documentary methods to gain unique insight on the ecology of endangered species such as the Rimatara Lorikeet. Originally from Hawaii, he currently resides in French Polynesia as a cinematographer and consultant for local environmental conservation organizations.

## Fear and Hope: Ukraine's Parrots and Their People

Many of us at the World Parrot Trust watched in dread as the invasion in Ukraine unfolded. We were shocked to hear of the rapidly rising human toll; what we weren't prepared for was the danger faced by companion birds caught in the conflict.

Near the end of March we received an urgent call for help from the Polish Association for the Welfare of Exotic Birds (Stowarzyszenie na rzecz Dobrostanu Ptaków Egzotycznych), an organisation that pledges to help Ukrainian parrots and their people survive this war. We were greatly moved to ask for help for them from our supporters. Thankfully, many of you answered and we were able to send funds for them to continue to deliver food and other vital supplies to parrots in Ukraine, and to help these birds and their caregivers to get across the border to safety.

Joanna Karocka, president of the volunteer group, tells more of the story:

*"When the war broke out in Ukraine and refugees began to arrive in Poland, we began to think if we could do anything to help them. We are a small Polish association that deals primarily with the education of parrot owners and the legal issues of keeping parrots in captivity, and at first we did not know how to help.*

*Only a few people with parrots came to Poland, but help was needed there in Ukraine. Oksana manages our association. She comes from Ukraine and thanks to her, we established cooperation with Ukrainian volunteers and developed an assistance plan. We buy everything they need in Poland, transfer it to Lviv, and from there our volunteers send everything in parcels to cities in Ukraine. In Lviv, everything is coordinated by volunteer Tania. Thanks to this, we can reach all cities that receive postal delivery. We cannot reach the places where there are direct fights and are under Russian occupation.*

*"However, such individual help has its drawbacks: it is very expensive. Sometimes shipping costs are as much as the contents of the package. We first used our own modest financial resources, we set up a fundraiser, but very quickly realized that the needs were huge and we would not be able to help with the money we had. Then we turned to various organizations and companies for support.*

*"The World Parrot Trust responded first...and something amazing happened. You [the supporter] started to donate to the fundraiser set up by WPT. I remember watching the first \$1,000, then \$2,000, then \$10,000...we were happy because we knew that for this money we would feed more parrots.*

*"Finally, we got over \$18,000(USD). In PLN it is a huge amount. Thanks to this, we can extend the help. Now we are sending not only basic food to Ukraine, but also vitamins, supplements, treats and even toys. We have helped several thousand exotic birds all over Ukraine. We help the owners of individual birds, but also centers where there are birds left by owners fleeing from Ukraine. We want parrots that have to live under war conditions to have a slightly better life.*

*"We thank the World Parrot Trust for their help and trust, and thank everyone who donated to the fundraiser. Your help will allow us to help over the next few months. We hope that later our help will not be needed anymore."*

Along the way the group has posted social media updates on the fight to save Ukraine's parrots. You can read the stories of the many families they've been helping at their Facebook page: [tinyurl.com/dpe-paweb](https://tinyurl.com/dpe-paweb)

We at the WPT wish this remarkable group and the people and parrots they've helped the best of luck with the challenges that lie ahead.



The photos featured below were sent to the Polish Association for the Welfare of Exotic Birds by grateful companion bird owners, to thank them for their help.



# Fledgling in the Field:

## A Puerto Rico Travelogue

by Melodie Krieger,  
WPT Communications Manager



© Tanya Martinez

**M**y bag was packed and I was ready to go when I received a call from WPT's Executive Director Jamie Gilardi about a possible change in plans.

I had originally booked a round-trip holiday from my home in Canada to Denver, Colorado but he asked if I instead change my return flight and head south to visit our partners in Puerto Rico, where they are working hard to save the critically endangered Puerto Rican Amazon (*Amazona vittata*).

As the Communications Manager for the WPT, I've spent the past few years writing a lot about the efforts we support, but I had never actually visited any of our projects, nor had I even seen a parrot in the wild! I suspected that February in Denver would be considerably different from Puerto Rico, so with just two hours

to spare before catching my flight I crammed a pair of shorts, some sandals, and a sunhat into my bag for the unexpected second half of my trip. All I was missing was some sunscreen and bug spray – two things I quickly discovered I didn't need with the dense forest canopy protecting me from the sun's rays and a million little geckos keeping all the bitey bugs at bay.

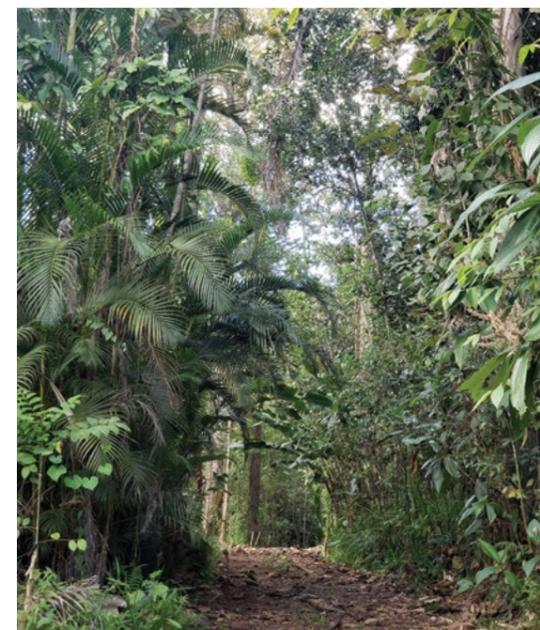
I was met at the airport by Tanya Martinez, Wildlife Biologist and Project Leader at the Puerto Rico Department of Natural and Environmental Resources. Tanya briefed me on the history of the project – adding a sidenote about



Puerto Rico's gas station chickens. (It's a thing.) We then hopped on a quick call to organize the week ahead with conservation biologists Sara Remmes and Lorna Alvarado.

Tanya's mother graciously hosted us for my first night where I fell asleep to the chorus of coqui frogs. The next morning, we hit the road before sunrise to travel to the Department of Natural Resources' field aviary in the Río Abajo State Forest, a facility that has been in use since 1992. Tall vine-covered stumps and a twisted power pole displayed the scars of Hurricane Maria, which tore through the area four years earlier. With bark and branches stripped bare from the trees, it was easy to understand how the island's population of Puerto Rican Amazon parrots had been severely impacted by this catastrophic event. However, since the hurricane and thanks to the project, a record number of chicks have fledged in the wild (more on this later).

Sara showed up to the field house soon after I arrived – a friendly face I'm familiar with from WPT's Zoom presentations; it was great to



**Left:** The jungle trail regularly used to check on the nests.  
**Right:** A field house used by staff on site.



finally meet her in person. I had the opportunity to follow her around on her daily routine as she carried all her gear on her back – including a machete – like it was no big deal.

We navigated through thick foliage, muddy terrain and prickly palms to find our way to the remote nesting locations. It was impressive to see Sara scale tall trees with ease using single rope ascension (SRA), as other trees displayed a series of spikes along either side of their trunks. Sara explained the difference between SRA to climb versus the spike system - SRA being the preferred approach as the spike system can make it much easier for poachers to identify nests and steal the chicks.

As it was breeding season, Sara peeked inside the nest boxes looking for signs of life, such as eggs and bowl-shaped indentations that suggest a parrot has claimed the territory and is prepping it for egg laying. Meanwhile, other nests had cameras placed inside with a camouflaged shelter nearby where a small monitor could be hooked up to see who's home. We had a moment

of excitement when the monitor revealed a "mama" parrot cozily sitting on an egg. Sara took notes on the status of each nest, and in some cases where there was a design flaw, she sealed the nest box with silicone to prevent the material inside from getting wet. Artificial nest boxes are often required due to a lack of natural tree cavities in mature and decaying trees. Many of these prospective nesting sites have been destroyed during harsh weather events such as Hurricane Maria.

As we maneuvered over and around fallen branches, Sara explained her mantra of "Don't drop the babies!" Baby swapping is the bread and butter of the project as eggs or chicks from the captive breeding program are added to wild nests allowing chicks to fledge in their natural environment rather than in captive care. It can be hard enough for an able-bodied person to walk in these woods without slipping on mud or getting pricked by a palm, let alone carry a fragile handful of precious cargo down precarious paths and then up a tree. Over the next few days I watched, learned, asked a million questions and enjoyed the



Signs of the destruction caused by Hurricane Maria remain throughout the area.

parrots flying in the wild. I also had a chance to interview different people working in the program like Brian Ramos Guivas about his PhD work on breeding behaviour in captive and wild populations and Ricardo Valentín, who has been working as an aviculturist with Puerto Rican Amazons since 1990.

“

During one of our interviews, two Puerto Rican Amazons stole the show by copulating overhead! It was an exciting and random thing to witness as Sara and Tanya cheered them on.



© Tanya Martinez

Earlier in the week, I was grateful to discover that Ricardo lives on site when I awoke after a short nap on my first day to find myself alone in the dark field house with the power out – a regular occurrence since Maria. I sat outside and watched the bats flutter against the sunset until Ricardo returned from his daily run and kicked the generator into gear.

Later in the week, we took a winding two-hour road-trip to Maricao State Forest to visit Finca (Estate) Alequin, which adjoins a new release site for Puerto Rican Amazons. We met with the former landowner Noel Alequin who shared his heartbreaking story about how he and his late wife chose to sell these 38 acres after her cancer diagnosis. The two decided that if they could not raise their family on this land, they were pleased to think it could at least be home to future generations of Puerto Rican Amazons. Although I do not speak Spanish, the emotion was beyond words. Their land was purchased by the William D. Yahn Foundation for the Preservation of Nature, Inc., with WPT taking on the role of managing the property to facilitate future releases in the area

in partnership with US Fish & Wildlife and the Puerto Rico Department of Natural and Environmental Resources.

Next, we met with WPT’s Lorna Alvarado to learn about the work she does caring for the birds being prepared for future releases as well as tracking those birds already in the wild at Maricao. She mentioned how everyone in the small community enthusiastically recognizes her as the “red-haired parrot lady,” as we then noted that three out of four of us are in fact “red-haired parrot ladies.” The interview got a bit silly with countless bloopers, but the jokes and laughter were much needed after Noel’s sad story.

As it was my last night in Puerto Rico, Tanya, Sara, Lorna and I enjoyed ourselves at a nice restaurant before I headed for home. While I really loved my time in the forest, it was fun to catch a glimpse of the city and have a solid meal as I really didn’t pack enough food for the week. Over dinner, I enjoyed listening to the ladies’ candid discussions about their experiences, including the particular challenges women face in

the field. I left with so much respect for the work that they do and the obstacles they’ve overcome – that could be an article in itself – but perhaps a topic to tackle another day. 



Sara Remmes and Tanya Martinez removing an ID ring from a bird

# Adventures with Lovebird DNA

Sampling in the Zambezi River Basin

by Sascha Dueker, M.Sc, WPT Lovebird Conservation Coordinator, Swithin Kashulwe, BirdWatch Zambia Conservation Project Assistant

All photos © Sascha Dueker

**After initial studies and site identification in Zambia in late 2020, and DNA sampling of the only population of Lilian's Lovebirds in Liwonde National Park in Malawi in June 2021, I was now determined to go back to Zambia River Basin and get samples from the remaining populations for our lovebird genetics study.**

Zambia in the south borders Zimbabwe, in between the magnificent Zambezi River with its patches of mopane forests, which are known to be the prime habitat type for two species of lovebirds: Black-cheeked Lovebird (*Agapornis nigrigenis*) and Lilian's Lovebird (*Agapornis lilianae*). Mopane trees provide ideal-sized cavities for these birds but are also in high demand for timber and charcoal.

Today, Zambia has the only two wild populations of the Black-cheeked Lovebird. In 2020, I (Sascha) was lucky enough to encounter a couple of them in a village in Machile Key Biodiversity Area in southwest Zambia. Back then I joined PhD student Chaona Phiri, from Manchester Metropolitan University, UK, who is doing her studies on Black-cheeked Lovebirds. This time, I would revisit this place and include three other locations:

Kafue National Park in Nanzhilla, where the world’s second population of Black-cheeked Lovebirds is well protected, and South Luangwa National Park and Lower Zambezi National Park, each harbouring its own population of Lilian’s Lovebirds.

In addition to one population in Malawi, these two locations in Zambia are today’s strongholds for these birds. If successful, the team would have DNA samples of all wild populations of each species, which are both listed as threatened on the IUCN list, a big step. The search began in Livingstone near the famous Mosi-oa-Tunya (Victoria) falls. Our research team consisted of myself, Swithin Kashulwe from BirdWatch Zambia, Patrick Katundu, the professional climber from Mulanje Outdoors Adventure who helped set up nest boxes in Malawi, and Dominic Mubika, an all-rounder: driver, mechanic, guardian and team ‘father.’



Top: Examining a Black-cheeked Lovebird  
Bottom: Lilian's Lovebirds take a drink at a watering hole

“...would we be safe in this straw-roof hut, or end up as some midnight snacks for 15 lions?”



**Top:** A ranger keeps a wary eye on potentially dangerous wildlife  
**Left:** A lioness relaxes near the camp  
**Opposite page, left:** Dr. Tiwonge Gawa joins Sascha Dueker near a watering hole  
**Opposite page, right:** Lilian's Lovebird being examined by a team member



Our targets were four of Zambia's Key Biodiversity Areas (Machile, Kafue National Park, South Luangwa National Park and Lower Zambezi National Park). What a dream and a long distance crossing the country from West to East!

At arrival we were greeted by a flock of 15 Black-cheeked Lovebirds perching in one of the village's old acacia trees at the entrance, a magnificent sight after the turbulent drive through the dried-out sand! With high expectations we proceeded directly into roost checks before the sun could set. The first research site looked promising - some mature mopane trees had cavity holes we could identify with our binoculars. These potential cavities had formed naturally over years of the trees' existence.

Luckily, as it was the dry season the trees were completely leafless, making lovebird sightings much easier than earlier in Malawi when, being perfectly camouflaged, they literally disappeared in the green leaf cover. In anticipation for sampling the following day we waited at the site. We were disappointed - no lovebirds came to roost. Were we at the wrong place? Had this site been abandoned, or had lovebird numbers decreased? Were these trees identified as roosts earlier? We now had to think of alternatives. One was to try to mist net the birds at the village at the same time of

day we had first seen them and to try to find waterholes they visited. Lovebirds are typical parrots in that they are very risk averse and are consistent with their day-to-day movements.

Luckily this worked! We measured, weighed, ID rung and took a DNA sample of the first bird. After making sure it was ok and no predators were around, we released it at the same spot to reunite with its flock. Swithin Kashulwe was eager to learn how to handle the bird. He had restrained birds before and had experience with mist netting but this was his first time handling a parrot. Afterwards, he said, *"I am thrilled with the whole process of handling and ringing the birds, however...lovebirds have a strong bite. Ouch! Certainly, you wouldn't want to mess with them and that remained Sascha's little secret... Nonetheless, the pain was worth the experience."*

From Magumwi, we proceeded to south Kafue National Park. The late entry into the Park and not knowing the state of the roads awarded us with three points for getting stuck in the sand patches. Luckily Dominic pulled us out! The next day we were joined by Chaona, the PhD student that I joined in 2020 in Machile. We began our roost checks, mist netting and identification of roost sites. The lovebirds there were skittish, however, we managed

to get samples over the seven-day period of our stay.

Despite having studied Black-cheeked Lovebirds for several years, this was Choana's first time handling these birds close-up. What an adventure, with good photos to round up her PhD thesis. But before we had successes there were some hurdles. One morning we encountered three lionesses at the waterhole where we planned to set up the mist net. Luckily, they disappeared while we discussed whether to set up or not.

We decided to go ahead, nervously. A huge herd of elephants then arrived wanting to take their morning baths. Elephants in Kafue National Park are known to be aggressive due to their bad experience with some humans. After a fearful moment they kept their distance and soon disappeared into the mopane forest. Mist netting could continue as per schedule! After getting samples from both roost sites and waterholes in Kafue National Park, the team embarked on a long journey in search of more Lilian's to one of the greatest wildlife sanctuaries in the world, South Luangwa National Park. The 12-hour journey from Lusaka to Mfuwe was marked by vehicle issues in the hot weather conditions. Again, thanks Dominic for solving all of them! After arriving late, tent-pitching duties and preparing dinner seemed to take forever

to accomplish. The following morning we checked for places where Lilian's Lovebirds could be found. We were joined by Edward Selfe and Gareth Broekhuizen, two ornithologists, conservationists and passionate birders who were keen to learn about our work.

Just when we thought the Black-cheeked Lovebirds were difficult to capture for sampling, we found ourselves sweating to net Lilian's in South Luangwa. We found out from a camp worker that Lilian's regularly visited a certain pond. It was very close to our camp, but again we found ourselves in a dangerous situation. Unfortunately, this pond was home to a huge male hippo that lurked in it. Hippos are certainly on the dangerous animal list, however, this one seemed to just be resting, didn't it? We decided to find out by setting up the mist net. As soon as we did, the massive hippo stood up and threatened us.

Just then we caught a lovebird in the net. How on Earth would we retrieve the bird without upsetting the "property owner"? The hippo seemed to dislike certain people. Luckily it was different for Swithin, because by now he had experience extracting lovebirds from mist nets. Swithin had respect for the hippo but was determined to get the sample we needed, so he calmly went and brought the bird back for processing.

“

***This was by far the scariest mist net extraction we experienced and not what we expected. But it was a victory: we managed to get the first DNA samples of Lilian's Lovebirds from Zambia, with more to follow.***

We moved on to another camp further inside the Park upon receiving information that large flocks of Lilian's had been seen at a waterhole. At this point we were joined by Dr Tiwonge Gawa, WPT's lovebird conservation officer from Malawi. She came to Zambia to study Lilian's Lovebird roost site characteristics but spared some of her time joining the team.

We came to a ranger's camp site, again near a waterhole, which attracted animals such as hippos, buffalos, and lovebirds. When we arrived the caretaker informed us that the area was home to a pride of 15 lions. By this time, we were used to getting up at 3AM in the morning to start our work. This night, however, we didn't sleep. The rangers and caretakers did not allow us to set up our tents but instead use beds in the little hut they had constructed. We followed their advice and were woken up near midnight by loud lion roars.

We were all uneasy - wow, would we be safe in this straw-roof hut, or end up as some midnight snacks for 15 lions? Thanks to the South Luangwa Park rangers we all lived to tell the story!

We extended the trip for another week, as we had underestimated road distances and a number of unexpected events. After collecting more samples in South Luangwa National Park we proceeded to the Eastern side of Lower Zambezi National Park. We camped again nearby the mopane trees, this time facing the mighty Zambezi river. It provided us with a somewhat cooling breeze while we collected our last samples.

Overall, it was a thrilling adventure which had encounters with hippos, elephants, lions and scorching hot weather. Waking up and leaving camp at 3AM, standing in darkness in the middle of the tall mopane trees not knowing what was around you and hearing the lions roaring a few metres away was daunting. We will not forget the wildlife, the beautiful landscapes of Machile, the Kafue, Lower Zambezi and South Luangwa National Park. Our 'Zambia lovebird family,' people from different countries with different experiences, expertise and personalities each fulfilling a role, made this trip a successful experience that everyone, without giving it a second thought, would love to do over and over again. ☑

# AFRICA ANTI-TRADE WORK

## RAISING AWARENESS FOR GREY PARROT PROTECTION IN NIGERIA



WPT recently teamed up with Arise News and WildAid Africa to produce a 10 minute film about the conservation plight of Grey Parrots (*Psittacus erithacus*) in Nigeria and the impacts of the pet trade. The film, which has been broadcast multiple times on national TV in Nigeria and other African countries, explores the threats Greys are facing in the wild and what is being done to protect them.

Ifeanyi Ezenwa, WPT's Nigeria Programme manager and a lecturer at the University of Nigeria, took reporter Laila Johnson-Salami to visit Iddo Market in Lagos State, Nigeria where Grey Parrots are openly sold and explained the findings of his recent research into the parrot trade in Nigeria and its impact on wild populations. The film also featured WPT's research into the growing role of online platforms in the trade of parrots in the region. Many people, and law enforcement agents, are unaware of the protections for Grey and other parrots and this film, together with other initiatives, aims to raise awareness of the threats they face and to end trapping in the wild.

Following the film the National Environmental Standards and Regulations Enforcement Agency of Nigeria (NESREA) visited Iddo market to give warnings to illegal bird sellers and put up posters explaining the law. An ARISE investigative report and studio discussion of the Grey Parrot trade can be seen at:

[tinyurl.com/gowildgreys](https://www.youtube.com/watch?v=tinyurl.com/gowildgreys)

[tinyurl.com/arisegreytrade](https://www.youtube.com/watch?v=tinyurl.com/arisegreytrade)

## HELPING TIMNEH PARROTS CONFISCATED FROM TRADE

In March, WPT vet Dr. Davide de Guz and Africa Programme Director Dr. Rowan Martin travelled to Liberia to help build capacity for the management of parrots confiscated from trade. Working with Libassa Wildlife Sanctuary and the Forestry Development Authority, WPT delivered "first response" training to rangers in the national Wildlife Crime Unit, who are focused on addressing illegal trade in wildlife in Liberia.

Rangers were given training in basic parrot husbandry, emergency care and transport and had the opportunity to get hands on to learn how to handle parrots safely.

Dr. de Guz provided training in avian medicine to the sanctuary vet and assessed the health of the resident parrots, including screening for diseases using cutting-edge mobile PCR technology. The team also helped assess sites for the potential release of a group of Endangered Timneh Parrots (*Psittacus timneh*) currently being rehabilitated.

WPT has been supporting the work of Libassa Wildlife Sanctuary since it became established, helping to build an aviary which has already received over 15 Timneh Parrots.



## CONSERVATIONISTS CALL FOR WILDLIFE CRIME TO BE ADDRESSED IN UK ONLINE HARMS BILL

In April, the World Parrot Trust and the Alliance to Counter Crime Online (ACCO) wrote to law-makers on behalf of over two dozen conservation organisations, tech experts and biologists, including the Born Free Foundation, Wild Aid, the Humane Society and World Animal Protection, to say "Britain is a country of animal-lovers that has long been a global leader in conservation. There's an opportunity now for the UK to take the lead in protecting animals in a place where wildlife trafficking and animal abuse has become widespread: the Internet." Specifically the letter called for wildlife trafficking to be added as a 'priority offence' to the bill, alongside other serious crimes such as supplying drugs and financing terrorism.

In May, WPT and ACCO also submitted written evidence to the Online Safety Bill Public Bill Committee considering the bill. The evidence included findings of WPT's investigations into how online platforms facilitate illegal trade in wild parrots and made recommendations for how regulators can help address this growing problem. During the committee stage, a series of amendments were suggested by the Shadow minister for Digital, Media, Culture and Sport, MP Alex Davies-Jones and other committee members which if adopted would bring harm to animals explicitly within the scope of the Bill. The inclusion of harms to animals within the Bill has received cross party support with Conservative MP Henry Smith also speaking up in support in the House of Commons. WPT will continue to advocate for important amendments as the Bill passes through Parliament.



**Top:** A rescued Timneh Parrot recovers in a flight  
**Right:** An aviary funded by WPT to help enforcement officials dealing with the illegal bird trade



NEWS

**WPT's Nigeria Program Manager receives conservation award funding**

The WPT is pleased to announce that the Conservation Leadership Programme is funding WPT Nigeria Programme Manager Ifeanyi Ezenwa's project "Reconciling the expansion of oil palm plantations and the conservation of Endangered Grey Parrots (*Psittacus erithacus*)."

The project outline notes, "The expansion of oil palm plantations is a major threat to biodiversity in the tropics and finding ways to reconcile the demands of a growing human population with biodiversity conservation is a central challenge for sustainable development. There is anecdotal evidence that careful development of oil palm plantations could minimise negative impacts for parrots and other large frugivorous birds." This project aims to work with government, community and business interests to study and develop sustainable strategies that work for people and parrots.

Read more: [tinyurl.com/5b235xxh](https://tinyurl.com/5b235xxh)

**The monkeys and parrots caught up in the California Gold Rush**

New research has brought to light evidence of monkeys and parrots being brought from Nicaragua to San Francisco to entertain the city's influx of newcomers bent on getting rich from the Gold Rush.

Cyler Conrad, an archaeologist at Los Alamos National Laboratory and the University of New Mexico, combed historical documents and important archaeological finds for the study. The results detail how locals and visitors used the animals for amusement.

Read more: [tinyurl.com/exxk85te](https://tinyurl.com/exxk85te)

**Ugandan court hands parrot trafficker seven-year jail sentence**



Recently 122 Grey Parrots (*Psittacus erithacus*) were seized from a Congolese wildlife trafficker following months of investigations by the World Parrot Trust and collaborators. The

trafficker was arrested in western Uganda in April in a joint operation by the police, army and the Uganda Wildlife Authority (UWA). As a result of his crime he was swiftly charged and sentenced to seven years in prison, a move that has been welcomed by conservationists as sending a message that wildlife trafficking will be taken seriously by the authorities.

However, in spite of the positive outcome conservation groups warn that gaps in Uganda and Democratic Republic of Congo legislation still exist and continue to help fuel illegal wildlife trade.

Read more: [tinyurl.com/5xtep6rk](https://tinyurl.com/5xtep6rk)



**Tribute to Avin Deen, WPT-India Representative**

It was with great sadness that we learned of the loss of Avin Deen, WPT's India Representative, on March 17th. Avin had a gentle demeanor, a quirky sense of humour and was a keen nature and animal lover right from the start. What started out as a passion for birdkeeping then broadened into a wider interest in birding, natural history and conservation.

After high school, Avin went on to develop his scientific and managerial skills to contribute to wild bird conservation, completing a MSc in Wildlife Science at the Wildlife Institute of India. He became actively involved in one of India's leading bird groups, the Deccan Bird Watchers' Society, and served as warden of the Rishi Valley Bird Preserve.

He was the Regional Research Coordinator for the Indo-Malayan Region of the Parrot Researchers Group (PRG), which establishes and promotes research needs and conservation priorities for parrots of the world. He played an active role in the rescue and rehabilitation of endangered birds from trade. Avin's extensive work further included engaging people in parrot conservation, educating companion parrot owners on the proper care of companion birds and advocating for their welfare.

He cherished his many friends and colleagues from the WPT. Mehd Halaouate, WPT's Indonesia Program Manager:

*"I met Avin the first time when I was managing the Begawan Foundation Bali starling breeding and release program. He came for a visit and we started discussing bird conservation*



*issues in Indonesia. From what he was sharing I knew he had birds in his heart. He was so keen to do whatever possible to raise awareness about their deserved place on our planet not as objects to use...but as equals. We became good friends and more so when we realised we were both fond of the special bird family, the parrots. He will be greatly missed, the bird conservation has lost an important member and the birds, especially the parrots, have lost a voice. Rest in peace, my friend."*

Dr. Rowan Martin, WPT Africa Programme Director: "Avin was an important voice for parrots in India and beyond and always full of ideas for new projects and initiatives. It was a privilege to count Avin as a colleague and the compassion and good humour he brought to parrot conservation will be greatly missed."

All of us here at WPT echo those words and extend our condolences to Avin's family and friends.

WPT CONTACTS

ONLINE

[parrots.org](https://parrots.org)  
[facebook.com/WorldParrotTrust](https://facebook.com/WorldParrotTrust)  
[twitter.com/parrottrust](https://twitter.com/parrottrust)  
[instagram.com/world\\_parrot\\_trust](https://instagram.com/world_parrot_trust)

MAIN BRANCHES

**UNITED KINGDOM (Main Office)**

Karen Whitley, Administrator  
 Glanmor House, Hayle,  
 Cornwall, TR27 4HB  
 Tel: (44) 01736 751026  
[admin@parrots.org](mailto:admin@parrots.org)

**UNITED STATES**

Lauren Schmalz, Administrator  
 P.O. Box 985, Travelers Rest, SC 29690  
 Tel: (1) 864 610 2129  
[usa@parrots.org](mailto:usa@parrots.org)

**CANADA**

Michelle Kooistra, Administrator  
 4377 Gordon Dr., Kelowna, BC V1W1S7  
 Tel: (1) 250 800 3202  
[canada@parrots.org](mailto:canada@parrots.org)

ADDITIONAL BRANCHES

- Africa: Rowan Martin [africa@parrots.org](mailto:africa@parrots.org)
- Australia: Carolyn Pradun [australia@parrots.org](mailto:australia@parrots.org)
- Benelux: Ruud Vonk [benelux@parrots.org](mailto:benelux@parrots.org)
- Belgium: Ronald Coens [belgium@parrots.org](mailto:belgium@parrots.org)
- Brazil: André Saidenberg [brazil@parrots.org](mailto:brazil@parrots.org)
- India: [india@parrots.org](mailto:india@parrots.org)
- Indonesia: Oka Dwi Prihatmoko [indonesia@parrots.org](mailto:indonesia@parrots.org)
- Italy: Cristiana Senni [csenni@parrots.org](mailto:csenni@parrots.org)
- Japan: TSUBASA [japan@parrots.org](mailto:japan@parrots.org)
- Netherlands: Ria Vonk [netherlands@parrots.org](mailto:netherlands@parrots.org)
- Latin America: Rosa Elena Zegarra [centralamerica@parrots.org](mailto:centralamerica@parrots.org)
- Sweden: Maria Rogstadius [sweden@parrots.org](mailto:sweden@parrots.org)



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**PARROTS IN THE WILD:**  
**Vernal Hanging Parrot**  
*(Loriculus vernalis)*

Vernal Hanging Parrots feed on berries, seeds, flowers and nectar high in the forest canopy. Their foraging is generally very acrobatic in nature.

Kaeng Krachan National Park, Thailand

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