

PSITTAScene

Magazine of the WORLD PARROT TRUST



Spring 2021



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 70 species of parrot.

CHARITY INFORMATION

United Kingdom: # 800944
United States: EIN 62-1561595
Canada: BN 89004 1171 RR0001

Editor: Desi Milpacher
Layout, Design & Production: Michelle Kooistra
Fulfillment: Karen Whitley & Charlotte Foxhall

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ON THE COVER

Photo © Konrad Wothe

A Vasa Parrot (*Coracopsis vasa drouhardi*) takes in its surroundings from a coral tree. Found on Madagascar and nearby Comoro Islands, these birds are remarkable in many ways, especially when it comes to breeding.

See the article: *The Curious Sex Lives of Vasa Parrots*, Page 12.



a message from
Alison's desk

Parrots continue to amaze me, whatever you know there is always so much more to understand about this diverse and complex family of birds. I have been lucky to hear three of our contributors to this issue of *PsittaScene* talk about their specialist subjects, Sacha Düker, Mehd Halaouate and Graham Martin. I hope you will be inspired by their knowledge and enthusiasm.

A sad situation that stayed with me in Sacha's work with lovebirds, is that escaped and introduced birds are creating hybrids putting the true species at risk. In a break from fighting the trade in Indonesia's wild parrots, Mehd shared his photos of exquisite parrots from far-flung locations including the tiny jewel-bright pygmy parrots which he writes about here. Professor Martin brought us the fascinating science of parrot senses. I learned that they can only just focus on what is right in front of their beaks but the sensitive 'bill tip organ' helps them to interrogate their food – vision and touch work together. So much going on, no wonder they need plenty of enriching sensations to keep them mentally fit.

I've been privileged to see a female Vasa Parrot in a large breeding aviary with several males, she in full astonishing colour and voice, commanding her mates to come and feed her. Desi Milpacher gives an understanding of this extraordinary behaviour.

Enjoy!



Alism

Alison Hales
WPT Chairperson



Major Mitchell's Cockatoo (*Cacatua leadbeateri*) © Ken Griffiths

LEAVE A
LEGACY
FOR PARROTS

What will be your legacy?

For information about including WPT in your planned giving, visit www.parrots.org/legacy, or contact the branch nearest you (see page 23).

“...What a dream to one day see Black-cheeked Lovebirds again in an area where they were once abundant...”



Black-cheeked Lovebirds
© Nik Borrow [CC BY-NC 2.0]

Love
IS IN THE AIR!

by Sascha Düker

WPT research will help protect the smallest of Africa's parrots

Wow! There I was standing in the middle of floodplains surrounding the Zambezi river in Zambia, a continental southern African country nurtured by the yearly flooding of this species-rich and diverse river system. The Mosi-oa-Tunya falls (Victoria falls) were not far and could almost be heard with their masses of water streaming down.

It was November and near the end of the dry season, a fact that made this trip possible since during the wet season the ground I was standing on and all the Mopane trees that were surrounding me would be covered in water at least a metre deep. The dry ground made driving through the little off-road paths possible but arduous. Digging the truck out of the dry clay was half the adventure, as vehicles rarely travel the track to the nomadic villagers that live in the area.

We first accessed this area from a paved road in our big Toyota 4WD, which was very useful to have as we would experience later on. Going deeper into the dry floodplains was accompanied by seeing higher stands of Mopane *Colophospermum mopane*, the trees we were looking out for! Mopane trees serve as habitat for Black-cheeked Lovebirds (*Agapornis nigrigenis*) and Lilian's Lovebirds (*A. lilianae*).

The former have the smallest distribution of any of the 9 species of lovebirds found in sub-Saharan Africa and Madagascar and were the target species of the trip. These special birds are now categorised as Vulnerable by IUCN and of high conservation concern due to their small distribution and loss of habitat, which was already visible on the way to our first destination.

Large stands of Mopane are being cleared at a high rate for timber and burned down overnight to make charcoal. Bags of charcoal are sold at roadsides, providing a small but important source of income for villagers with few alternatives. The World Parrot Trust (WPT) has been working with Dr. Tiwonge Gawa for several years to understand the drivers of habitat change in Zambia and how changes to Mopane woodlands are impacting lovebirds. A new project, postponed due to COVID-19 last year, is exploring how the worst effects can be mitigated through nest boxes. Other WPT initiatives have focused on stopping poisoning at water holes.

The deeper we went into the Mopane forest the more nervous I became, listening intently to catch the Black-cheeked Lovebird's screechy sounds

and looking out to see some green small parrots with short tails hurrying through the canopy of the trees. We were passing by one of the small nomadic villages with their impressive looking clay huts with dried-grass roofs when suddenly I heard what I was listening for and we stopped the car. I grabbed my binoculars and scanned the tree that the screeches were coming from.

There they were. I could not believe my eyes. In the middle of the heat of the day, a small flock of around 15 Black-cheeked Lovebirds was perching in an Acacia tree close to the village. They were making the most of the shade the few leaves were providing and fighting with two African Grey Hornbills (*Lophoceros nasutus*) for the shadiest spots to rest from the midday sun.

Unbelievably we had managed to find them before even reaching our destination. We stopped for about half an hour to observe their behaviour and take data, but of course also to get some good pictures. Then we had to carry on since we still had some kilometres to cover before the end of the day.

We did not drive 500 metres further and one of the tyres burst, the victim of intense heat and an unavoidable small tree stump sticking out from the ground. Changing the tyres at around 40°C surrounded by the whistles of African Yellow White-eyes (*Zosterops senegalensis*) and hornbills was quite a new experience. Moving on we were accompanied by more sightings of Black-cheeked Lovebirds but also encountered other wildlife like elephants, zebras, giraffes, and a group of approximately 20 African wild dogs. What an amazing dream!

The purpose of this field work was to collect blood samples of Black-cheeked Lovebirds for genetic analysis back in the lab. These data will help us understand the relationships between different populations, their conservation importance and how to responsibly manage collections in captivity. All of this is vital information for underpinning future conservation work for lovebirds across the region.



Top: A nomadic village in the heat of midday
Middle: A showdown for shade between a lovebird and a hornbill
Bottom: Zebras and other animals are encountered en route
Photos © Sascha Düker



Over the last year I have been coordinating a review of research and conservation priorities for African lovebirds, collaborating with researchers and conservationists throughout Africa as part of a project initiated by the Parrot Researchers' Group and funded by the World Parrot Trust. The review and its recommendations form a roadmap for lovebird conservation, and it was exciting to be here moving forwards to fill key knowledge gaps identified in that process.

Towards the end of the trip, I had the chance to visit Mosi-oa-Tunya National Park, which I was told would have great stands of Mopane. However, despite the presence of apparently suitable habitat the lovebirds were conspicuously absent.

Spending days in Livingstone allowed me to go to the natural history museum to sample the specimens in their collection. It was there where I met the former

ornithological curator of the museum who had worked on Black-cheeked Lovebirds in the past. She showed me specimens from the 1960s collected from a location where Black-cheeked Lovebirds no longer occur. The Black-cheeked Lovebirds of Mosi-oa-Tunya National Park!

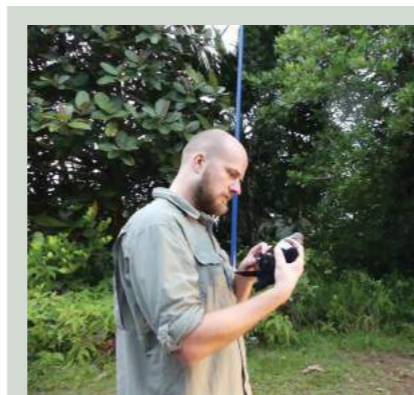
The population was completely wiped out due to past heavy trapping for the pet trade – something which remains an issue for many of the 9 species today. These museum samples would be hugely revealing for informing conservation action.

Now that trapping is illegal in the country and the park is very aware of wildlife crime, the idea of restoring lovebirds to this area is irresistible.



The effective protection of this habitat means the Mopane trees are safe from clearance for timber or charcoal production and have developed into huge trees, providing natural cavities for nesting and roosting.

What a dream to one day see Black-cheeked Lovebirds again in an area where they were once abundant, where thousands of tourists would be able to admire these birds within the National Park. With these samples we've taken we are a small step towards realising that dream. 📷



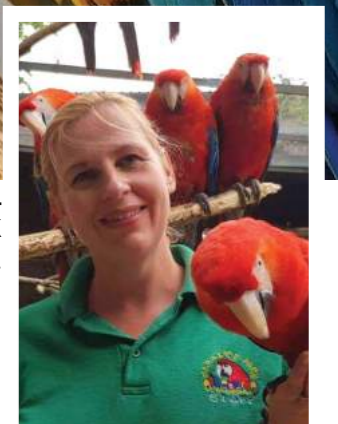
ABOUT THE AUTHOR:

Sascha Düker has taken on the role as the Lovebird Project Coordinator for the WPT Africa program. He brings five years of experience in African parrots' research and conservation having worked in several countries in sub-Saharan Africa. He is based in Pretoria-Tshwane, South Africa.

Enrichment can come in many forms, all of which can be beneficial to the life of your bird by encouraging natural behaviour and engaging problem-solving skills.



Louise Caddy, Head of Parrots at Paradise Park, UK (Home of the World Parrot Trust) and some of her charges.



A Feast for the Senses: Different Ways to Enrich Parrots' Lives

Enrichment should be a part of your daily routine in parrot care as it can prevent your companion from becoming bored and possibly harming themselves or their surroundings. In part one of this article, we will explore three different types of sensory enrichment (visual, auditory and olfactory) and why they are beneficial for your parrot.

Visual

Research has shown parrots to have advanced colour vision, so their toys should reflect this. Many birds will choose to play with a brightly coloured toy instead of a natural wood one. There are many different safe dyes on the market that you can use to stain your birds' toys a more vibrant colour. I have made many toys for my birds and always found it interesting to watch and see which colour block a bird chews first. Some birds will chew a specific colour block all the way through before choosing another colour.

Sometimes something as simple as your bird's cage placement can be the most enriching. Some birds love to spend time when in the cage watching out the window. I know my own parrot used to love watching my pet rabbits running around in the garden, becoming quite excited at times and vocalising at them when they got close to the window. To change things up, I would wheel her cage to a different window and watch the traffic/people passing my garden. I always made a point of exposing only a third of her cage in the window, so if she wanted she had the option of staying out of view, but you could guarantee she would be there watching everything.

Finally, there are several bird DVDs on the market showing birds performing natural behaviours for your bird to watch. Watching and hearing another



*The macaws of the Kiwa Centre, UK enjoy their daily colourful treats.
Photos © Kiwa Centre*

bird bathing can encourage your bird to bathe in its water bowl.

Auditory

There have been many different studies done showing the benefits of auditory enrichment with companion birds. In the wild it is rarely quiet so some low background noise for your bird can be very calming. Many caregivers will leave a radio on for their birds to sing and dance along to. It is amazing to see how birds react to different types of music. My own bird, a Timneh called Mojo, absolutely loved anything by Barry White. I played Mojo a lot of different

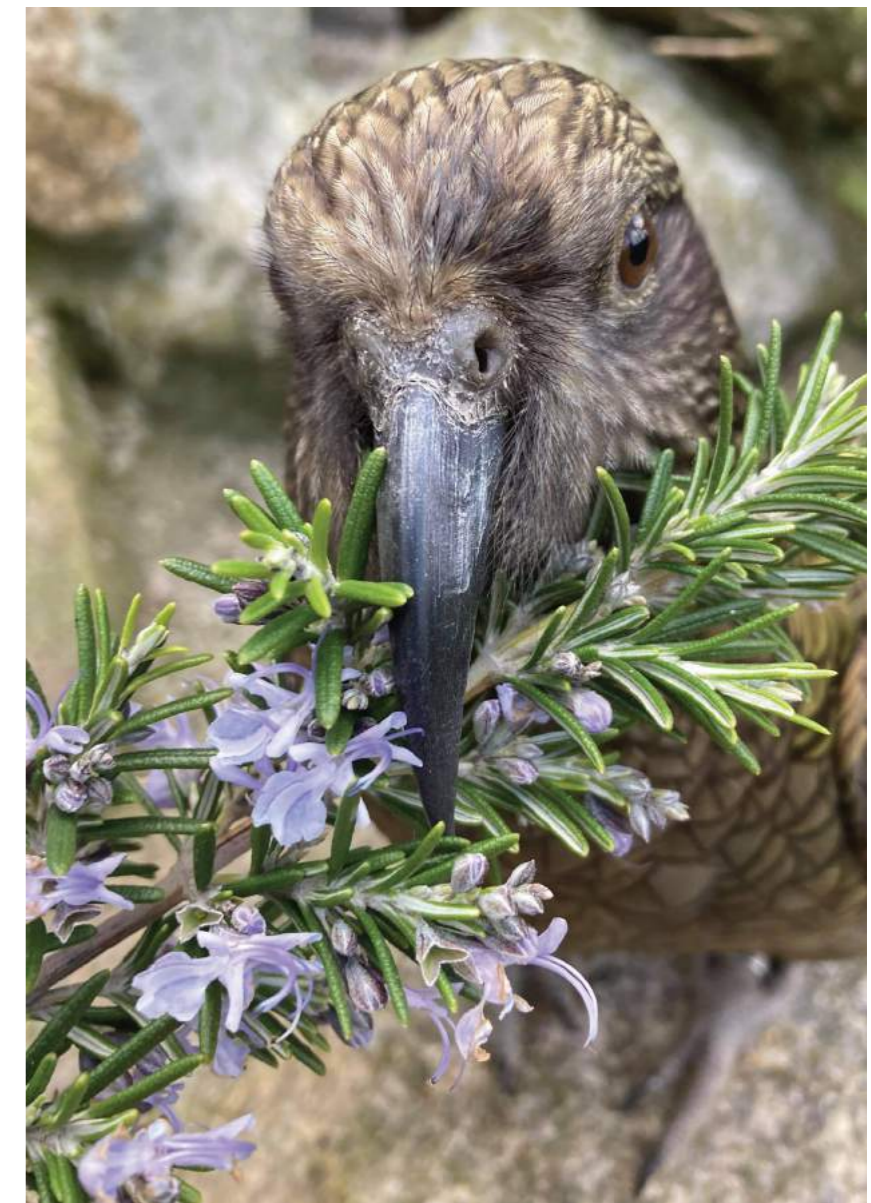
music over the years, but nothing got the same reaction as a Barry White track.

There are several different enrichment CDs on the market to choose from with hours of different bird and rainforest sounds. Many birds respond in a favourable manner and many join in. Or, if it is safe to do so, you could simply open the window so you bird can hear outside noises.

At the Park we often see our male Palm Cockatoo drumming on a perch with a big stick as part of his breeding behaviour. Companion birds can also drum with suitably-sized foot toys to



*Top: Herbert the Palm Cockatoo shaping his 'drumming stick'.
Right: Iris, a female Kea, enjoys a flowery treat.
Photos © Paradise Park*



make a noise. Parrots likewise love to drop items into metal bowls to hear the sound.

Olfactory

There have been many different studies done on birds and how well they can smell. According to Professor Graham Martin, BSc, PhD, DSc of The University of Birmingham, UK: "It is now becoming clear that smell is used by a wide range of birds for mediating social interactions, species recognition, and finding potentially rich foraging areas... it seems likely that the sense of smell plays an important role in parrots."

When thinking about how parrots use their sense of smell I am reminded of how Kākā have been seen responding to different scented materials. And at the Park we are in the process of a study where garlic is rubbed onto boxes to see if parrots could identify the box by its smell alone (results are pending).

At home, I have often offered freshly cut rosemary to my daughter's budgies. While 'Goldfish' simply nibbled at a few leaves, 'Potato' went and rubbed himself all over the herb, so I am assuming he preferred the smell as he wanted it all over his feathers.

Bearing this in mind I have been keen to try different smells out on the parrots at the Park to see if and how they react. We grow many herbs at the park that we can cut and give to the birds fresh on a regular basis. These include basil, parsley, mint, thyme and coriander, to name a few.

In the next issue of *PsittaScene* (Summer 2021) I'll explore how to stimulate parrots' other senses: touch and taste. ☐



THE CURIOUS SEX LIVES OF vasa parrots

by Desi Milpacher

The animal kingdom is full of the strange and the wonderful, from organisms that can live in a wide range of conditions to those whose benchmarks for life are so restricted that their existence is tenuous at best. There are arctic and desert dwellers, forest canopy natives and deep ocean denizens, and they all live on the tiny orb we call Earth.

As it turns out, there are wide variations in the ways organisms mate (or not) and have young as well.

Where breeding is concerned, in the world of parrots the majority of species are loyal to one chosen mate, an arrangement known as *monogamy*. These birds spend many hours with each other in the wild flying, feeding, preening each other and strengthening their bond.

However, alternative mating arrangements (or systems) also exist in parrots in cases where allegiance to just one partner isn't a good option for a variety of reasons; *polygyny* (males mating with multiple females) and *polyandry* (multiple males mating with one female) are examples. Polygynous and polyandrous parrot species include Golden Conures (*Guaruba guarouba*), Kea (*Nestor notabilis*), and *Eclectus* species. Birds using these more specialised systems have one goal: produce as many offspring as possible that hopefully survive to adulthood, and do it however you can.

While land-locked parrots mainly live with one mate in their lives, resource restrictions and competition have seen some that are more isolated evolve differently. Being restricted to islands that broke off from ancient Africa some 150-165 million years ago has seen to it that Vasa Parrots (*Coracopsis vasa*) are unique from other psittacines. Of all the parrots in the world, none are quite as fantastic as they are. Both sexes are identically grey-black in colour, the female (rather than the male) is significantly larger (by 25%), and the females incubate the

eggs for the shortest time of any parrot (around 14 days; most are 23-28). They also have wonderfully weird love lives — these birds are *polygynandrous* (a more specific offshoot of polyandry), where both males and females mate with multiple partners.

Males mate with and provide food for several different females at the same time through the entire breeding season. Genetic analysis has confirmed this, showing that Vasa Parrot nest-mates are often the offspring of at least three male parents. And in another departure from the norm, the females are the ones that expend the greatest amount of energy in courtship and nest defence as well as in their usual roles of laying and incubating the eggs.

Females are highly territorial during the breeding season, never leaving their chosen area and defending their nest and consorts against other females. By contrast, the males mostly tolerate each other when going in and out of the various females' domains. Mating can be either short or a long, drawn-out affair (over 30 minutes), with the male's large cloacal protuberance tying him and the female together. This bizarre appendage also exists in close relatives Black, Seychelles and Comoro Parrots (*C. nigra*, *C. barklyi* and *C. siblans*), but nowhere else in parrots.

Once the eggs are laid, the incubating female comes off the nest for brief stints and is fed regurgitated fruit by multiple males, and the males simultaneously feed other widely-separated females also incubating eggs, defending the nest or rearing chicks. Research has also revealed something more: females call loudly from high perches—with songs that are unique to each of them—very near the nest and the more a female does it, the more males she attracts to feed her and her chicks.

It all sounds a bit chaotic, but this unusual way of breeding has probably evolved as a means to ensure the survival of this island-bound species, in an environment that has limited resources to begin with and has been negatively altered by human interference. The Vasa Parrot's oddness may help to save it in its changing world, and the world will be all the better for it. 📺



Once the female begins feeding chicks she loses the feathers on her head, which then turns a bright yellow-orange. It's thought that this transformation helps to attract the males with food for her and her young.

Female Greater Vasa Parrot © Charles J Sharp [CC BY-SA 4.0]



VASA PARROT
(*Coracopsis vasa*)

IUCN/CITES listing:
Least Concern / Appendix II

World Population:
Unknown, decreasing.

Range:
Madagascar and offshore islands.

Threats:
Persecution, trapping for wild bird trade and habitat loss.

Ecology and Behaviour:
These parrots inhabit a variety of habitats, including moist dense forest, open dry woodland and savanna, and cultivated areas. They consume seeds, nuts, berries, fruits and some cultivated food. Birds congregate in noisy parties and in larger flocks when feeding or resting and roost in tops of tall trees with a lookout to warn of danger.

SPOTLIGHT

Zoo Conservation Partner



FOUNDED IN 1970, THE AWARD-WINNING WOBURN SAFARI PARK SITS ON OVER 300 ACRES OF BEAUTIFUL BEDFORDSHIRE PARKLAND AND IS HOME TO OVER 80 SPECIES OF EXOTIC ANIMALS.

Woburn Safari Park, UK

Caring for the Park's wild residents is their primary focus, but supporting numerous conservation organisations is high on the list, too – including raising funds to help support the work of the World Parrot Trust for threatened Grey Parrots (*Psittacus erithacus*), Great Green Macaws (*Ara ambiguus*) and Yellow-crested Cockatoos (*Cacatua sulphurea*).

Woburn Safari Park's Head of Section for Animal Encounters Hayley Potter is the European Association of Zoos and Aquaria (EAZA) Species Monitor for the Grey Parrot. She also sits on the EAZA Parrot Taxon Advisory Group. Although the Park doesn't hold Greys, Hayley is actively involved in their captive management at other wildlife collections throughout Europe.

The Park is involved in raising funds for the WPT through its daily 'Birds in Action' parrot talk and demonstration. They raised £4,445.38 for WPT in 2020, no easy feat given the restrictions and challenges of the pandemic. The Park's overall contributions to WPT's efforts have reached well over £28,000. The World Parrot Trust is sincerely grateful for their generosity and efforts to support some of the most endangered parrots in the world.



Woburn Safari Park Woburn Park Bedfordshire MK43 0TU Woburn, UK
Visit their website at: www.woburnsafari.co.uk or find them on Facebook.

PART TWO:

PARROT SENSES

How psittacines connect with their surroundings

by Graham Martin, BSc, PhD, DSc



In part two of this series (see part 1, *Parrot Vision in PsittaScene Winter 2020*), Professor Graham Martin explores how psittacines comprehend and interact with their surroundings through hearing, smell, magnetoreception and touch.

Hearing has been investigated in detail in some parrot species and it seems clear that the hearing range and hearing sensitivity of parrots is much in line with that of other birds. Sound information is probably very important to parrots for social communication and is vital to their everyday activities.

The frequency range of parrot hearing is narrower than our own. It seems that the hearing of all birds sits within the overall envelope of the hearing of young humans. This indicates that whatever sound a parrot can hear, a young human will be able to detect. There are no secret frequency ranges used by parrots for communication.

Basically, most birds, including parrots, can hear sounds within a frequency range of 30 Hz (Hz are cycles per second) and 8 kHz, this compares with the human frequency range of 20 Hz - 20 kHz. In both humans and birds, the maximum sensitivity to sounds occurs in the 1- 4 kHz range, which is roughly the frequency range of the notes on the upper half of a piano keyboard.

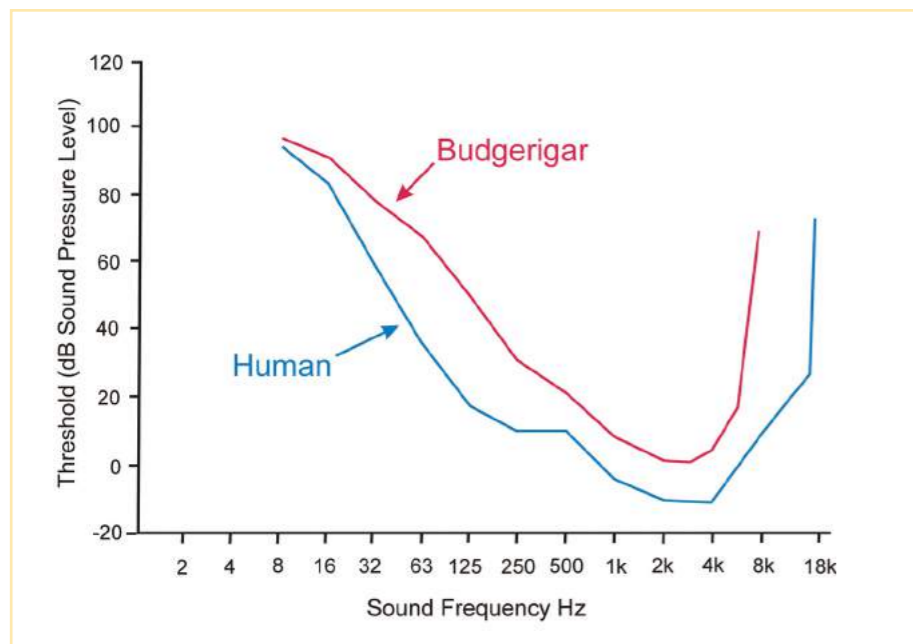
The hearing range of humans narrows as we age; we tend to lose our high frequency hearing. Whether the longer lived parrots also suffer similar hearing losses is not known.

SOUND LOCATION

The ability to locate sounds in both direction and distance (range) is important in determining just how useful sound can be as a mean of communication. After all, it is little use to just hear a sound; you want to know the direction from which it came and how far away the source is. Surprisingly, evidence shows that in most birds, including parrots, these abilities are rather poor, especially compared with ourselves. We can determine, to within a degree or two, the direction of a sound source and we learn to range nearby familiar sounds to within a few metres. Owls are the only group of birds which can match our sound localisation accuracy and they use this ability to locate hidden prey.



Ear opening, left, in chick
© M.Shattock [CC BY-SA 2.0]



The audiogram makes it clear that parrot hearing falls inside human hearing, i.e. any sound a parrot can hear should be also heard by a young human. However, because of age-related hearing loss our hearing may become more like that of a parrot as we get older, i.e. we lose the high frequency hearing advantage.

For most purposes, however, birds do not need to have such high accuracy in either direction or range. This is because they are highly mobile. Birds can move rapidly in the general direction of a sound that they find interesting and home in on it through successive approximations.

Poor sound location in birds is mainly down to physics. Having the ears separated by only a small distance on the sides of the head means that in birds there are only very small differences between sounds arriving at the two ears. It is these differences that are used to determine sound direction. It is our large solid heads, and widely separated ears, that give us the advantage over parrots when trying to locate sounds.

SMELL

The sense of smell is often readily overlooked in birds. We tend to think that birds live in a world of sight and sound while it is the mammals that live in a world of odours. There is increasing evidence, however, that smell plays a vital role in the behaviour of many bird species. It is not just the well-studied petrels, Turkey Vultures, and Kiwi in which smell plays a key role in locating food.

It is now becoming clear that smell is used by a wide range of birds for mediating social interactions, species recognition, and finding potentially rich foraging areas. This has been demonstrated in some species of passerines and it seems likely that the sense of smell plays an important role in parrots.

Experimental investigations are rather few but one intriguing example comes from a study of Kākāpō in which a bird was shown able to use odour cues to locate hidden food. Whether using smell in this way is part of Kākāpō natural behaviour is not clear, but the fact that they can latch onto and exploit odour cues does suggest that smell is important to these birds, and probably to other parrots.

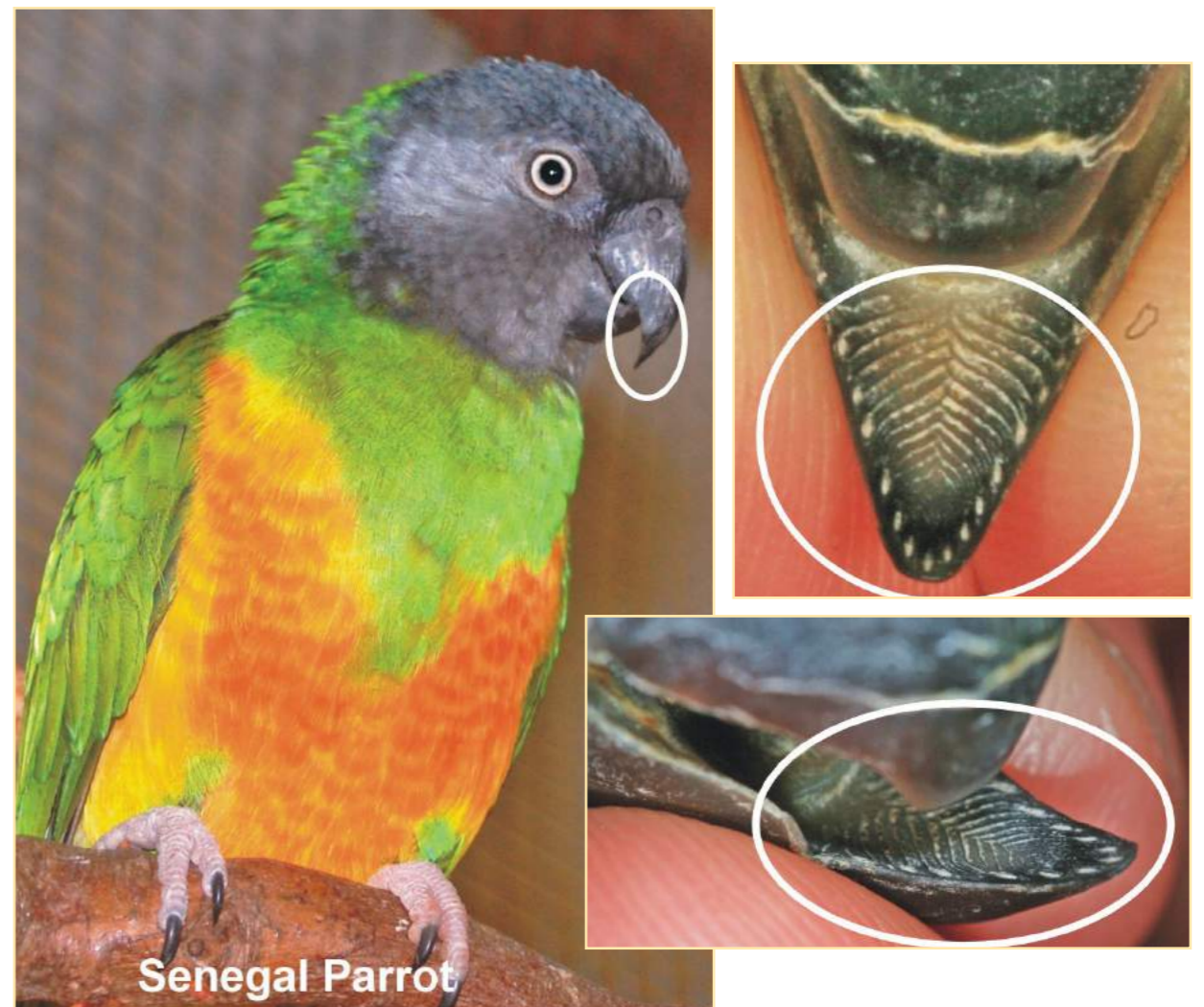
MAGNETORECEPTION

I have left this sensory ability until last, not because it is unimportant but because we know very little about it. Magnetoreception is the ability to detect aspects of the Earth's magnetic field. The Earth's field varies continuously across the globe and is potentially a rich source of information about position and direction. Despite a lot of research showing that birds are

among the animal groups that can detect the Earth's magnetic field, the actual mechanisms involved remain elusive. In birds there may be more than one mechanism providing magnetic information separately on direction and position.

One system may be based in the eyes, the other associated with the nostrils and the nerves that lead from them. Although the sample is small, the range of bird species in which magnetoreception has been shown to exist includes pigeons, chickens, and songbirds, the parrots' closest relatives. This suggests that magnetoreception may be widely distributed across bird species. It is possible, therefore, that parrots can be counted among the species that can use geomagnetic field information, but experimental evidence is lacking.

However, some parrot species migrate and many range over large areas; to do this they need to know where they are and the direction to where they want to go. Magnetoreception may be one of the sources of information that helps them do this, but some clever investigations will be needed to reveal the secret.



BILL TIP ORGANS

If parrots cannot guide their bill visually with high accuracy (see Vision in Winter 2020 *PsittaScene*) what information can they use to direct their manipulation of objects? The answer lies in special touch sensitive receptors in the bill tip. As shown in these photographs of a Senegal Parrot (*above*) the touch receptors are situated within the curved tip of the upper mandible. They are grouped in clusters and are collectively known as the bill tip organ.

The actual touch sensitive receptors are housed in small pits in the keratin of the bill. The clusters of touch receptors are arranged symmetrically in seven pairs situated just inside the edges of the bill. There is a further single cluster of touch receptors at the very bill tip. Bill tip organs give parrots detailed touch information about objects held at their bill tip, allowing them to manipulate and position objects without seeing them. The bill tip organ allows parrots to achieve the intricate manipulation and positioning of

a food item before ingesting it. Crucially, it also allows parrots to use their hooked bill tip as their characteristic "third limb" when climbing about.

Touch sensitivity in the bill allows parrots to accurately assess the positions of structures, and probably their surface characteristics, which in turn allows them to confidently rely on their bill as they climb. 📷

ABOUT THE AUTHOR:

Professor Graham Martin, BSc, PhD, DSc of The University of Birmingham, UK is an Ornithologist with an international reputation built upon his research into the sensory worlds of birds. In recent years he has used his expertise to focus on problems concerned with the function vision, especially binocular vision, in foraging behaviour, and in understanding why some bird species are particularly vulnerable to collisions with human artefacts such as wind turbines, power lines and fishing nets. His son is Dr. Rowan Martin, WPT-Africa Programme Director.

THE LITTLEST PSITTACINES: PYGMY PARROTS

article and photos by Mehd Halaouate

When one talks about the largest and smallest parrots on the planet a few species come to mind. As far as large parrots go, the top of the list is the Hyacinth Macaw (*Anodorhynchus hyacinthinus*) from Brazil, Bolivia and Paraguay at up to 100 cm from head to tail. The heaviest parrot is the Kākāpō (*Strigops habroptilus*) from New Zealand, which can weigh up to 4 kg.

When it comes to the smallest, the pygmy parrots win the prize. They are only about 8.3 to 9 cm in length and weigh no more than 12 g. Their genus name *Micropsitta* is derived from the Greek *mikros*, which means small and *psitta*, for parrot. In my travels in Indonesia and Papua I have been fortunate to see four of the six species in this family of parrots often.

A Few Facts About Pygmy Parrots

The pygmy parrots are predominately green in colour. The head, breast and belly colours, plus their distribution across New Guinea and surrounding islands, are the factors that differentiate between the species and subspecies. For example, and as their name suggests, the Red-breasted Pygmy Parrot is the only species with red breast feathers. It is the same with the Yellow-capped with its splash of gold on top. The Geelvink Pygmy Parrots are restricted to two islands in Geelvink Bay, and so on.

In general, the males are the most brilliantly coloured, and the females and juveniles more drab and inconspicuous. Their green colour and small size makes it difficult to

spot these parrots in the forest canopy. The best way to find them is to listen carefully for the very sharp whistling sound they make when actively feeding, watch for falling food debris and to check the trunks of their favourite feeding trees.

The pygmy parrots are some of the very few psittacids that can literally run up, down and on the underside of branches and trunks of trees with ease and confidence. This behaviour is similar to that of the nuthatches and sittellas, two tree-creeper types of birds. They use their disproportionately large feet, long toes and stiffened tail feather tips (similar to woodpeckers) to brace and stabilise themselves against tree trunks.



Red-breasted Pygmy Parrot

Pygmy Parrots are some of the very few psittacids that can literally run up, down and on the underside of branches and tree trunks with ease and confidence.

These features help them in their search for food; their diets consist mainly of fungi, lichens, nectar, small berries and insect and insect larvae found in the bark. Recently it was discovered that they consume a small amount of seeds, like those of the Australian Pine (*Casuarina equisetifolia*).

Pygmy parrots' preferred habitats include lowland, secondary growth and mountain forest, and occasionally coconut groves, savannas and areas around human settlements (especially gardens). They nest and roost in either tree cavities or *arboreal termitaria*, which are termite mounds found in trees. A way of distinguishing between pygmy parrot nests in these mounds and those of other birds such as kingfishers is that the pygmy parrot's entrance is horizontally oval. Those that belong to kingfishers are round.

The breeding season for most pygmy parrots is between March and October. I have documented a pair of Red-breasted Pygmy Parrots preparing for breeding in September and a pair of Geelvink Pygmy Parrots whose chicks fledged in mid-July.

From talking to local hunters and landowners who have encountered the birds I have learned that most species lay between two and four eggs. Otherwise, their breeding habits remain largely a mystery.

One notable behaviour is that the previous year's offspring will roost in the same termite mound and feed on the same tree as their parents. Small flocks of up to 25 birds have been recorded running up and down tree trunks occasionally squabbling with each other.



Newly fledged Geelvink Pygmy Parrot chick



Red-breasted Pygmy Parrot nests



Pygmy parrots from the highland and mountains, because of the lack of termite mounds there, nest as most parrot species do in tree cavities. The ones from the lowland forests breed in termite mounds. They are great places to raise a family as the temperature inside remains constant, so the eggs and chicks don't get overheated or chilled. Another benefit is the fact that it is easier for the birds to dig a chamber in it than in a tree trunk. Interestingly, despite their proximity to the insects inside the mound there's no evidence that the parrots feed on them.

There are a number of threats to these birds. There is some local capture for pets, and forest clearing on Buru and Biak islands is ongoing at an alarming rate. Unfortunately, because it is easy to catch these birds when they are breeding local kids, when they find active nests, catch and play with the birds until they succumb to stress. I started informing the

locals and their kids that if they find active nests we will pay them just to show us where they are. I am hoping that this kind of action, although small, will slow or even end the unnecessary captures and deaths. Raising awareness about the uniqueness and the important role every creature plays in our ecosystem is the best survival strategy that we can implement, alongside converting trappers to birdwatching guides.

Apart from human threats raptors, hornbills, lizards and snakes also present dangers for these parrots. I have observed in New Guinea that even hornbills, larger kingfishers and the Rufous-bellied Kookaburra (*Dacelo gaudichaud*) will often raid the nests of these tiny birds. There are two theories about this, one is that they are evicting the parrots as the kookaburras in particular also nest in termite mounds and two, they are getting a protein-rich meal out of the eggs, chicks or even the adults.



Rufous-bellied Kookaburra



Papuan or Blyth's Hornbill

Conclusion

There is still a lot to be discovered about these elusive parrots. More research into their ecology, population status and the threats against them is needed for these tiny gems. As an example, some subspecies like the Buru Red-breasted Pygmy Parrot (*Micropsitta bruijnii buruensis*) — first described by colleague Thomas Arndt in the late 1990s — are not well known.

These birds are probably in danger from rapid deforestation occurring on Buru, so more studies are needed to better understand their status in the wild. I will not be surprised at all if, in the midst of exploring these threats, we discover new populations or even new species of pygmy parrots in the future, because there are vast areas of New Guinea that are still unexplored. 📍



Buff-faced Pygmy Parrots



Geelvink Pygmy Parrot

A QUICK PRIMER ON

RED-BREASTED Pygmy Parrot

Micropsitta bruijnii - 5 subspecies

Range: Buru and Seram islands in Maluku, highlands of New Guinea, New Britain, New Ireland, Bougainville, Guadalcanal and Kolombangara in the Solomon Islands.

Wild Status: IUCN Least Concern, CITES Appendix II.

Threats: Subspecies *buruensis* likely threatened by rapid forest clearance.

YELLOW-CAPPED Pygmy Parrot

Micropsitta keiensis - 3 subspecies

Range: Aru and Kai islands in Indonesia, South New Guinea, in the Vogelkop and Onin peninsula.

Wild Status: IUCN Least Concern, CITES Appendix II.

Threats: Unknown.

GEELVINK Pygmy Parrot

Micropsitta geelvinkiana - 2 subspecies

Range: Biak and Numfor islands in the Geelvink Bay, Papua.

Wild Status: IUCN Near Threatened, CITES Appendix II.

Threats: At risk from loss of lowland forest.



Yellow-capped Pygmy Parrot

PYGMY PARROTS

BUFF-FACED Pygmy Parrot

Micropsitta pusio - 4 subspecies

Range: New Guinea and New Britain.

Wild Status: IUCN Least Concern, CITES Appendix II.

Threats: Some threat from capture as pets.

MEEK'S Pygmy Parrot

Micropsitta meeki - 2 subspecies

Range: Admiralty Islands, Mussau and Emirau island in the Bismarck Archipelago.

Wild Status: IUCN Least Concern, CITES Appendix II.

Threats: Unknown.

FINSCH'S Pygmy Parrot

Micropsitta finschii - 5 subspecies

Range: Eastern islands of Papua New Guinea, the Bismarck Archipelago and in the Solomon Islands.

Wild Status: IUCN Least Concern, CITES Appendix II.

Threats: May be threatened by habitat loss and degradation.



The World Parrot Trust welcomes Dr. Luis Ortiz-Catedral

We are pleased to welcome Dr. Luis Ortiz-Catedral as our new Director of the WPT's Oceania Program. Originally from Mexico, he obtained his Bachelor of Science (BSc) at the University of Guadalajara and then his Master of Science (MSc) degree and Doctor of Philosophy (PhD) from Massey University in New Zealand. He is a conservation biologist and wildlife manager whose speciality is recovering populations of threatened island vertebrates such as parrots, terrestrial snakes, iguanas and mockingbirds.

Luis has studied wild parrots in New Zealand and Australia for 17 years. His research has contributed to developing a blueprint for *Cyanoramphus* parakeet translocations in New Zealand, and to a better management of pathogens in wild parrot populations. His new role within the WPT will be to help develop conservation capacity in the Oceania region (encompassing Australasia, Melanesia, Micronesia and Polynesia at a land area of 8,525,989 square kilometres).

Yellow-naped Amazon Survey: Results show a drastic decline

A study supported by the WPT, the University of Pittsburgh at Johnstown and New Mexico State University's College of Arts and Sciences has found that there are far less Yellow-naped Amazons (*Amazona auropalliata*) left in the wild than previously thought. A range-wide survey, which encompassed the results of a 2016 count in Costa Rica and Nicaragua and 2018-2019 investigations

in Mexico, Guatemala and the Bay Islands, concluded that fewer than 2,400 birds exist. The alarming results have prompted the authors to petition the International Union for Conservation of Nature (IUCN) to list the species as Critically Endangered, up from Endangered.

Read more: tinyurl.com/ynaresult



Environment department failed to investigate allegations rare Australian birds were exported for profit

An independent review has found that the Australian environment department failed to investigate allegations that endangered and rare Australian birds were being sold in Europe for profit, and instead continued issuing permits to allow more birds to

be exported to the secretive German charity Association for the Conservation of Threatened Parrots (ACTP). The investigation was triggered when Guardian Australia reported that hundreds of birds, including endangered species, were exported to the facility reportedly to be used for a zoo exhibition, and that private messages showed that birds were being advertised for sale shortly after. The KPMG

review said the environment department received allegations the "true purpose of the exports was commercial" shortly after the first permits were issued, and that it failed to adequately investigate the allegations.

Read more: tinyurl.com/ma5yu6kf

TRIBUTE: Murphy Green, Brave at Heart

Our 2020 Spring issue featured Murphy Green, a companion Solomon Island Eclectus parrot, that fought a serious cancer in 2019. His case inspired many and showed how advancing veterinary medical technology, a caregiver's love and sheer Eclectus determination could bring about a remission.

Sadly, late last year WPT learned that Murphy had lost his battle when the cancer returned. Our hearts go out to his devoted companion Carol Frank; he will be missed.



CORRECTION NOTICE: Hazel's Horrible Adventure

Please note: the address has been corrected from the link posted in the Winter 2020 edition of *PsittaScene*.

Get your copy on Amazon: tinyurl.com/hazelsha

PSITTASCENE

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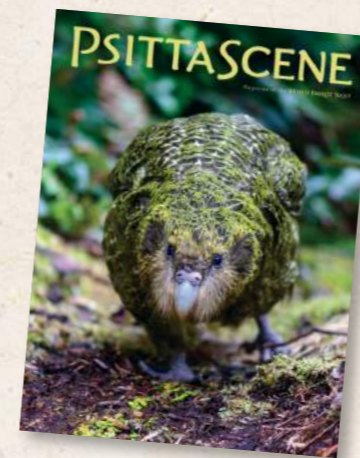
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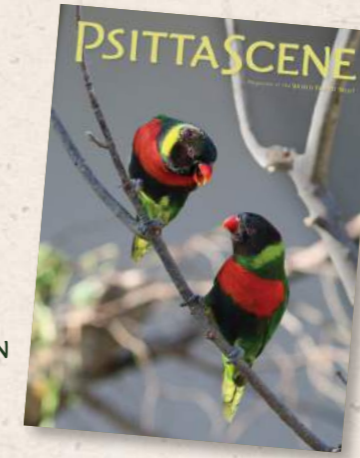
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WPT CONTACTS

ONLINE

parrots.org
facebook.com/WorldParrotTrust
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instagram.com/world_parrot_trust

MAIN BRANCHES

UNITED KINGDOM (Main Office)
Karen Whitley, Administrator
Glanmor House, Hayle,
Cornwall, TR27 4HB
Tel: (44) 01736 751026
uk@parrots.org

UNITED STATES
Lauren Schmaltz, Administrator
P.O. Box 985, Travelers Rest, SC 29690
Tel: (1) 864 610 2129
usa@parrots.org

CANADA
Michelle Kooistra, Administrator
4377 Gordon Dr., Kelowna, BC V1W1S7
Tel: (1) 250 764 1422
canada@parrots.org

ADDITIONAL BRANCHES

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



PARROTS IN THE WILD:

Bourke's Parakeet

(Neopsephotus bourkii)

An adult Bourke's Parakeet peeks out of a nest cavity in its native inland Australia. These hardy parrots are nomadic; foraging for food, roosting and breeding in *Acacia* and *Eucalyptus* woodland.

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