

RAPTORS in the ROUND - Revelations and Mysteries from the Previously Unobserved World of Raptors in Care

Author: Peggy McDonald, Churchill Fellow 2017

Affiliations: A: Wildlife Rescue South Coast

B: Higher Ground Raptor Centre

C: Southern Highlands Veterinary Centre

D: Australian Raptor Care and Conservation Inc.



Abstract

This paper covers the history of the Peter Spitzer Free-Flight Aviary and the Higher Ground Raptor Rehabilitation Centre. It discusses the importance of achieving world's best practice for raptor rehabilitation and release. Observations of previously unobserved raptor behaviour are shared, as witnessed in the Peter Spitzer Free-Flight Aviary, the largest one of its kind in the southern hemisphere. Individual rehabilitation stories are included, accompanied by photographs. Also included are photographic observations of the birds as they fly, whether at speed, quartering or hovering.

Keywords

Raptor, birds of prey, raptor rehabilitation, interactions, observations, circular rehabilitation aviary

Introduction

The personally witnessed contents of this document are delivered as “food for thought”. They are observations and are presented as such without individual further comment.

- Australia and its territories host 35 species of birds of prey: 24 diurnal raptors and 11 owls, many of which are endemic
- The following 14 species are listed as endangered, threatened or vulnerable in NSW – my home state (IUCN, 2018, Office of Environment & Heritage NSW, 2018).

Latin name	Common name	Status
Elanus scriptus	Letter-winged Kite	Near Threatened
Erythrotriorchis radiatus	Red Goshawk	Critically endangered in NSW
Falco hypoleucos	Grey Falcon	Endangered in NSW
Falco subniger	Black falcon	Vulnerable in NSW
Haliaeetus leucogaster	White-bellied Sea-Eagle	Vulnerable in NSW
Hieraaetus morphnoides	Little Eagle	Vulnerable in NSW
Lophoictinia isura	Square-tailed Kite	Vulnerable in NSW
Ninox connivens	Barking Owl	Vulnerable in NSW
Ninox natalis	Christmas Boobook	Vulnerable
Ninox strenua	Powerful Owl	Vulnerable in NSW
Tyto longimembris	Eastern Grass Owl	Vulnerable in NSW
Tyto novaehollandiae	Masked Owl	Vulnerable in NSW
Tyto tenebricosa	Sooty Owl	Vulnerable in NSW

“Raptors, especially the larger species, have been characterised as canaries in the global coal mine; that is, they are sentinel species, indicators of human effects and ecosystem stability. Raptor ecologists have long inferred that large raptors, as apex predators with large home ranges, and considering the Eltonian pyramid of numbers, are obvious candidates for umbrella species in ecosystem conservation.

That is, raptor breeding populations will naturally occur in biodiversity hotspots that support large and diverse prey populations. There has long been much resistance to such use of apex predators, on the grounds of bias towards charismatic vertebrates. Science has confirmed the role of raptors as umbrella species, although not without reactionary argument and detraction (largely unwarranted). Overseas research has established that biodiversity levels and faunal abundance are higher at sites occupied by breeding raptors than at unoccupied sites in comparable habitat. Networks of protected sites constructed on the basis of breeding raptors were found to be more efficient than networks based on other species, so enabling higher biodiversity coverage from fewer reserves. There is thus a link between the strategic utilisation of top predators and ecosystem-level conservation: conservation of apex predators can deliver broader biodiversity benefits.” (Debus, 2012, p. 151)

My passion for the care of wildlife in general and for raptors in particular is something I have pursued for the past 40 years. My commitment to the informed rehabilitation of raptors is demonstrated by my experience. I have over thirty years of voluntary raptor rehabilitation experience and was former Chair of the avian and raptor teams for the Wildlife Information, Rescue and Education Service, Inc. (WIRES). In that capacity I produced material for manuals and educational courses. I am also a Founder of ARCC Inc and the Higher Ground Raptor Rehabilitation Centre.

From 2012-2017 I visited the Abu Dhabi Falcon Hospital (ADFH). ADFH is the world's largest falcon hospital. There I completed a series of four internships and the months of intense study fired my passion for increased rehabilitation standards for these magnificent birds. My ambition for Australia's need to reap the benefits of world-class raptor rehabilitation was confirmed by my time at the ADFH, and now with my current studies and the impending visit to the Gabbert Raptor Centre at Minnesota University.

Round versus rectangular: the story of the round aviary

One of the many discoveries at the ADFH was their round aviaries. For decades I had been convinced that in Australia we were not giving our rehabilitated raptors, the athletes of our skies, the best chance to thrive and survive post-release. I believed that this was due, in part, to the use of small rectangular aviaries. At the ADFH one round aviary in particular was used as the first stage of reconditioning for the hundreds of wild raptors that pass through on their way back to freedom each annually. These birds were successfully rehabilitated and released every year at migration time, under the Late Sheik Zayed's falcon release programme.

I was astounded by the results I had observed at the ADFH round aviary. The level of reconditioning achieved by the rehabilitating birds was astonishing. On my return to Australia I was determined to construct a similar aviary. This was accomplished in 2014 after 3 years of blood, sweat and tears, fundraising and sponsorship and many volunteer hours. I have called the aviary the Peter Spitzer Free-Flight Aviary (PSFA). The late Dr Peter Spitzer was a wonderful friend, mentor and GP through some seriously troubled times. Without his encouragement and wise words it probably would not be here, and it was a tragedy that he died before he was to see it opened. His family was present, as was (I am sure) Peter in spirit.

The PSFA was adapted to suit the temperate conditions of Southern Highlands: rain, frost and the odd snowfall, instead of the intense heat and ferocious sand storms of Abu Dhabi! The aviary was built in rough stages as I acquired funding and materials, and recycled materials were used where practical.

With its completion, we were moving closer to our goal of being at the forefront of world raptor care and release practices. Achieving the gold star status already on display in

countries like the UAE and North America would have to be the desire of any serious rehabilitator. Learning from these countries and passing on knowledge through education is key to training rehabilitators and carers.

The first “patient “ was a White-bellied Sea Eagle , and when she actually flew two circuits immediately after being given access, I knew that there was indeed a way for us to really start to give these beautiful apex predators a better chance.

So that box has been ticked, and I feel that the correct turn in the road (or aviary) has been taken.

There was more to come, a lot more in fact, from an unexpected quarter: the birds themselves and the emotions and sensitivities they are displaying.

Passion can be infectious, and when the aviary was up and running Dr Tony Gestier, and his wife Kerry, **Vetafarm** , came on board and generously and kindly donated a state of the art CCTV system. Within the rehabilitation setting in the PSFA, I use the Vetafarm CCTV system to observe the birds. Using this technology I am lucky enough to be able to enter the raptor world. This is done primarily through observing the interaction within and between species, and I am adding to my every day.

Materials and methods

The PSFA, in essence, is 100m in circumference, between 6m – 8m high and adjoins two traditional rectangular aviaries, 18m x 5m x 4m in total. These can remain separate, be joined, or be opened to link and form one open complex with the birds being able to have access to all areas.

The aviary contains natural furnishings such as wooden perches changed regularly, stumps and posts, logs and bushes and now the trees visible below have grown and provide roosting sites, as well as different flight pathways.





*human wearing a pale jumper is circled, providing scale

The aviary contains a central pavilion which can act as a separate holding facility, but has the primary function of not enabling the birds, particularly the faster birds, to see an end point when flying. This encourages circular continuous flight rather than just back and forth, perch to perch. There is 10 cm of blue metal and 10 cm of washed river sand over the entire base.

Detailed specs, as well as materials and construction methods, can be accessed on <https://www.highergroundraptors.com/round-aviary>

Videos of the birds in flight can also be seen on this site.

I am so happy that as a result of the precedent this aviary has set, and the results achieved, others are out there across Australia fundraising for and building similar structures.

As I type now in my office I am watching fourteen CCTV cameras installed in most of the ICUs and in all the aviaries, including 4 in the PSFA. These provide total coverage. This state-of-the-art system allows the birds to be monitored without human presence, and also is extremely useful for determining hearing and sight abilities, especially with owls. It has the capability to record, take stills, and watch live action with no human interference.

Many still images were taken by award-winning photographer and friend Mark Kelly, who patiently and quietly is able to take stunning shots that can be viewed away from the birds to determine strengths and weaknesses. The less impressive images are mine! These remarkable photographs and the way they are able to be taken reveal the results of pre-release conditioning and enable crucial observations of the functioning of the birds' anatomy as they gain height and speed. Wing, leg and tail positioning before and after gaining lift, furling and intent can all be captured and examined either on the CCTV or through Mark's lens, showing details that I could not otherwise have seen.

A strong visual component is included in this paper, alongside descriptive text outlining several of the previously unobserved behaviours of raptors undergoing rehabilitation in PSFA.

The images are of significance. The need to be aware of the sensitivities of birds undergoing rehabilitation was foremost during this documentation process.

Stories and images will include:

- A newly fledged Black-shouldered Kite being sheltered during a storm by a Wedge-tailed Eagle.
- The constant noting of interactions of certain species through deliberate choice on their part.
- Adult Wedge-tailed Eagles (WTE) mentoring recent fledged WTEs.
- The remarkable story and interaction (both from the same location but through two separate carer organisations) of an adult White-bellied Sea Eagle and a juvenile.
- Peregrine Falcons utilising the aviary to the maximum, completing 10klms of flight at 70km/h

Results

Since the building of the round aviary, the installation of the Vetafarm CCTV system and Mark's carefully documented images, there have been many incredible and unprecedented moments that I have witnessed through the cameras that I would not have otherwise seen. Sadly some birds have had health issues requiring euthanasia that could not have been detected in a rectangular aviary without being able to achieve speed and distance. As a rehabilitation facility the round aviary not only demonstrates positive outcomes, but highlights health issues that would otherwise go undetected in a conventional aviary, one that does not allow Free-Flight.

Many birds that would normally have been released after rehabilitation in our standard aviary facilities have come from excellent carers determined to give "their" birds the best chance possible on release. However, most of these birds have demonstrated a complete lack of fitness even after relatively short periods in care, for example two weeks with Peregrine falcons. Depending of course on past trauma and physical ability it can take a good month in the PSFA for a Peregrine Falcon to start to demonstrate good speed and distance. Generally 5km at 50 km/h gives me a good indication that the bird will continue to build up and hopefully do well post-release.

Birds that have satellite trackers tail mounted through our Australian Raptor Care and Conservation Inc (ARCC) satellite tracking programme can be monitored to ensure the trackers pose no physical issues prior to release, and are not bothering the birds.

For me personally, witnessing the interactions of the birds has been truly amazing. I have been given fabulous insight into what these incredible creatures are capable of. I have learnt an enormous amount about their capacity for intelligence and emotion.

Their relationships demonstrate that while best practice husbandry and supreme fitness are essential to their successful rehabilitation and release, their mental wellbeing is as critical a factor in their eventual recovery. The days should be long gone when rehabilitation meant: aviaries with a single worn perch; being thrown a chicken carcass every day; being cleaned every few months; hearing the kids next door playing and dogs barking. In my opinion this life is not a life, and will not lead to a successful release should that occur.

Have you ever seen Wedge-tailed Eagles playing together? Tossing about sticks and leafy branches or cardboard boxes, critically young with older adults? Tearing about for over 50 m rolling and tumbling around to see who can toss the stick the furthest and catch it the fastest? Adults calling a halt to the games, and then spending long periods engaging in allopreening?

Have you seen Masked Owls grabbing Astro Turf from the top of feed stations and running about playing “tag” with it? After that a jump in the bathing pool and a big drink from the water bowl?

Have you seen a Peregrine Falcon flying for 10 km, often 5km one way, a swift turn and five back the other way?

Once you have witnessed these behaviours you will never look at any raptor in the same way again, and you will appreciate my deep passion about our current rehabilitation practices. What we often and currently understand as rehabilitators in Australia, is only the tip of the iceberg.

I look back at birds I have released over the years before “seeing the light”. With horror and sadness, I reflect that many must have gone through a frightening and painful rehabilitation period, albeit with my best intentions and knowledge, only to be released and most likely die a slow and prolonged death.

I will preface the following by saying robustly and continuously that mixing species, or even adults, is not something I personally would ever do in a normal rectangular aviary, or even a round aviary without bays and separate enclosures attached, though from what I have seen the latter is more for my peace of mind than risk to the birds. It would also be inappropriate to mix prey/predator species such as Peregrine Falcons and Masked Owls with Australian Nankeen Kestrels or Australian Hobbies, no matter what sort of aviary you are able to use.

The PSFA aviary is the biggest of its type in the Southern Hemisphere, the birds are able to access separate rectangular aviaries should they wish to do so, there are bays and shelters and in fact they do not even have to see each other if they do not want to. There are numerous food stations and water and bathing bowls

What they do is uniquely their choice, and on the following pages I share some examples.

Wedge-tailed Eagle

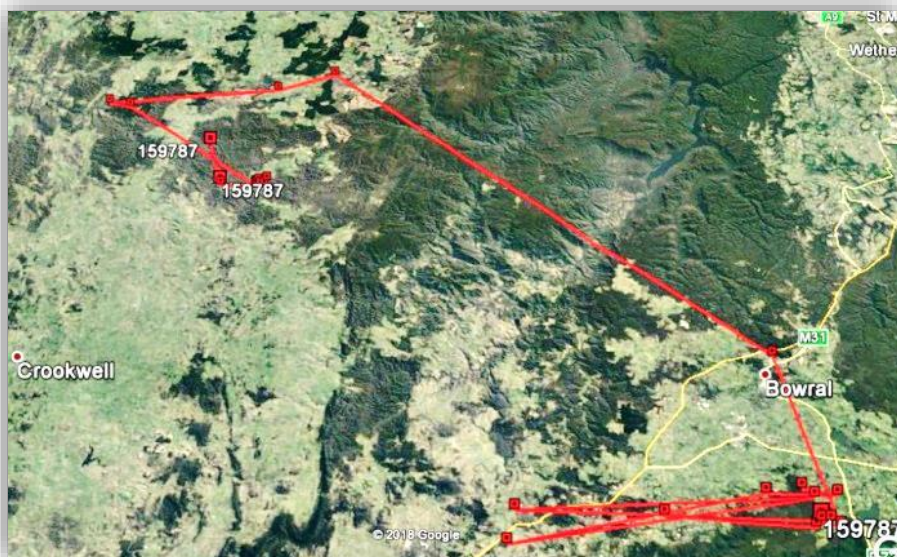
A newly fledged Wedge-tailed Eagle had come in as a severely emaciated and injured young after falling from her nest in severe weather in a very remote location. She was injured, starved and cold, and very alone. Many weeks later this was taken after she had just fledged here, and on her first day in the PSFA. This was the first time she met up with an older bird, (aside from her parents) who immediately engaged with her and spent many hours just making gentle Wedgie noises and much allopreening. I stayed secreted in the aviary while the introduction took place and took this initial image 5 minutes after they met.



The youngster was flapping her wings, clearly surprised at what she had discovered; the older one stopping her falling off the log a few times by putting her head under the fledgling's chest.

The whole process was just extraordinary to witness, and my worries were not necessary as they gently engaged with each other. Gradually over the day she made small flights and was able to land on lower perches. By day two she was up and flying. The Vetafarm CCTV allowed me to watch all this after I felt confident to leave them.

Over the following months their engagement lessened as her "street smarts" developed, she had reached normal dispersal time, and she was ready to go off on her own. Through ARCC Inc, of which vet Dr Charles Carter and I are founding members, we fitted her with a satellite tracker and off she went. As they will often do, she hung around the general area here for a couple of weeks, but was not taking any of the food I was putting out.



It was magic to see her around and about, soaring and gliding, especially down the escarpment, and then seeing her less as she began travelling further afield as shown on her tracking path.

Then off she went.....hundreds of kilometres away to classic Wedgie /rabbit country. Her movement is explained in greater detail by ARCC Inc member Kiara Simonis.

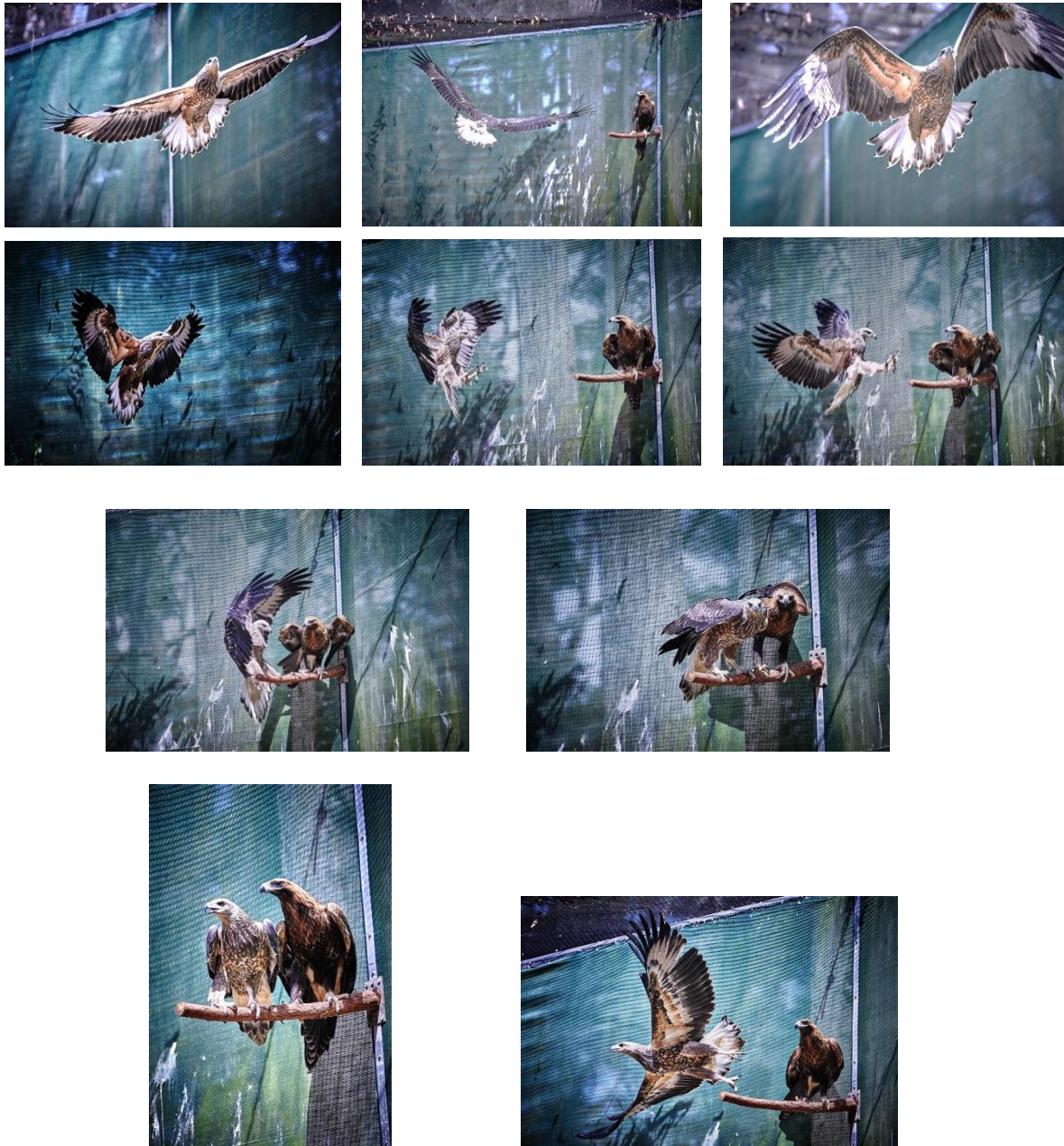
As a carer who sees birds like this from their early days of needing us in order to survive, this experience illustrates why we do it. We care and collaborate with critically injured or diseased birds who let us tube feed them; medicate them; facilitate vet visits - all without fuss. We do so with the hope that their next chance out there flying the skies will be successful. Their successful rehabilitation and eventual release is such a joy to witness and even though this Wedge-tailed Eagle has a tough road ahead I know her rehabilitation pathway was successful and worth every second. Her life is back in her wings now.

Do we tend to really focus on wings when it comes to rehabilitation and flying?

These superb images by photographer Mark Kelly graphically demonstrate how perfect the birds' legs and feet need to be for manoeuvres and weight bearing, especially at speed, for survival back in the wild .

Mark Kelly's images show what I usually can't see well, especially in small rectangular aviaries where these sorts of manoeuvres are just not possible.

Following is a sequence of images of a juvenile White-bellied Sea-Eagle, after 10 laps (one km), choosing to land next to a juvenile Wedge-tailed Eagle, hang about a minute or so, and then take off the other way for eight more laps. Leg and feet position well for all manoeuvres, tail spreads and balances, feet up and out for landing. The ability to gain lift and height are critical, to be able to quarter, hover, fly at speed, land and balance, to see and to hear are critical in varying ways for individual species survival needs, and all can be accomplished and witnessed in the PSFA and with the help of the Vetafarm CCTV system.



Powerful Owl

This Powerful Owl was sent to me by a concerned carer. Her hope was that the owl could be released rather than be placed in an education facility, as was her intended future.

The Powerful Owl had suffered a severe head trauma a month earlier and it was thought that she had an eye issue that would not resolve, and therefore was potentially blind in one eye. Friend and vet ophthalmologist Dr. Jeff Smith examined her and believed that the aberration in her pupil would heal and her vision return to normal.

Over two months this did indeed happen, after which she went back to her previous location in the wild.

She was able to demonstrate in the PSFA that her hearing was fine (a combination of CCTV watching while someone makes different noises in designated areas outside the aviary) and that she could avoid obstacles when flying at speed.



Do raptors have the skills to survive inclement weather if raised by humans?

It is essential always to think very carefully about whether or not nestlings/new fledglings we take into care will be able to develop their instinctive behaviours. Can they learn their instinctive hunting methods without the benefit of parental teaching or after long-term care in an aviary? Birds that naturally take carrion and invertebrates can be easily trained. However, birds such as Peregrines will need specialised training.

I had never thought about an inexperienced raptor's ability to know what to do and how to shelter in severe weather. This little Black-shouldered Kite came in as a new fledgling, and clearly had no idea what to do during his first torrential downpour.

Despite there being many bays and two shelters he could have sheltered in, he stayed in the open. Most of the adult raptors prefer to stay out in the weather despite the opportunity to get under cover. This little guy was drenched, along with a newly fledged Brown Falcon, and both were on the ground miserable and luckily spotted on the Vetafarm CCTC system. The Brown Falcon was brought up and put into the warm HDU room, but the little Black-shouldered Kite found a buddy in this lovely wedgie, and ended up being sheltered right under her wing with the Wedgie crouching on the perch.

The Wedgie was so gentle with her and clearly understood what was necessary. I could have cried but I was too wet and cold and in awe of so much we don't understand. I disturbed them when I went back down to get this fledgling, but after I left and watched she resumed position under the wing, which I was able to capture by video.

It was absolutely teeming down when this was taken and the gentle way the Wedgie engaged with her little companion was enough to make me risk my camera to get some validation.

We should, without exception, always make every attempt to reunite healthy chicks and fledglings with parents as soon as possible. There is just simply no substitute for a parent no matter how good a carer we might be.



Spotted Harrier

A young male was hit by a car, sustaining a fractured ulna, grazed left tarsus and missing tail feathers. Following his ICU period, he was sent down to the Free-Flight aviary to see if his normal flying ability would return. His left wing was dropped quite markedly, but over three months of being allowed to exercise at his own pace the drop was barely discernible, and he was flying beautifully.



Here he is in the Free-Flight demonstrating perfect flight ability



...and here he goes back home again where he belongs!

I firmly believe this could not have been achieved without the ability for him to practise continuous flying, including the quartering he was so good at prior to release.

Brahminy Kite in the PSFA

This young Brahminy Kite that was taken into care when he jumped from the nest during land clearing. After initial care with another carer, he arrived here, and steadily built up flight skills and street smarts with the other birds. Such a beautiful flyer, always quartering gracefully and almost continually during the day, dipping up and down beautifully as the stills and CCTV images showed. The time came when our Brahminy would have reached normal dispersal, and after a pre-release check from vet Dr Charles Carter, was released at normal dispersal time back where he was found.



Wedge-tailed eagle and newly fledged Sea Eagle interact

The mature wedgie had eaten half a flathead fish that I had put in PSFA. She then took the other half and placed it (in a crack on the left of the log) in front of the just fledged Sea Eagle who promptly ate it!

She walked about 70 metres to do this and it was a very deliberate and gentle action.

Sometimes, no always, I am in such awe of these birds.

This young Sea Eagle was released at dispersal, satellite tracked and did very well with some simply amazing travelling.



Australian Hobby with Serratospiculum sp. (air sac worms)

This little hobby had been with an experienced carer for many months following a motor vehicle trauma. The carer, being familiar with the aviary here and having worked successfully with me previously, obviously wanted the best for this little bird he had put so much effort into, and sent her here for reconditioning prior to release.

After observing her in the smaller aviary I was concerned about the fact that her right wing did not appear to be able to extend fully. I determined that the best course of action would be to allow her to have a 'stretch out' in the large aviary to see whether or not this problem might begin to resolve rather than just being prolonged. I had also noticed that she seemed a little winded after just 18m of flying in the larger rectangular introduction aviary, but put that down to stress and potentially some residual pain.

The outcome was personally confronting to witness. She attempted to fly for less than a minute before dropping to the ground almost as if she had been shot. She was dead when I reached her.

I have never seen such an occurrence and my concerns were such that I felt it prudent to have a complete post mortem, including x-rays, performed that day.

Dr Emma Mainprize was able to perform this for me, and this image was taken by her. The species was confirmed by Dr Margit Muller at the ADFH.



The results were disturbing, but also clearly identified the underlying reasons as to why she would never have been viable for release, and even if kept in captivity for much longer would have succumbed to her disease.

The detailed post mortem results identified the following: the issue with her wing was in her 'wrist joint' with the x-ray showing complete radio opacity of the joint, there was no evidence of a break anywhere else including the radius and ulna of either wing.

The most debilitating of her problems, however, was that her abdominal air sacs were completely overloaded with live air sac worms, most of which were at least 20 cm long. These were Serratospiculum worms and would have severely inhibited her ability to breathe to the point of eventually causing her death. Both of the above, combined with post mortem evidence of gross pathological obesity, obviously led to her being unable to either fly, or breathe adequately while flying, and led to her collapse and subsequent death.

This story, whilst sad in the extreme, illustrates the need for early appropriate veterinary diagnosis and treatment, along with keeping birds confined in small spaces for as short a time as their medical condition requires.

Sometimes our very best intentions don't always have a positive outcome and in the cold light of day not all raptors taken into care will have a successful result. However, this story does certainly illustrate our need to work as a cohesive team, using our combined strengths, knowledge and facilities to provide the best possible outcome for every individual case.

Peregrine falcon

This young male Peregrine Falcon came to me after three days in this small cage with a very concerned and well-meaning member of the public who had been unable to access veterinary assistance over a long weekend. He had completely crashed through a glass door in pursuit of a small bird, had knocked himself out and had much glass embedded in his body, head and especially one foot, and had lost a lot of blood. The nasty foot wound, typically, took several weeks to heal, and he was in intensive care for over two weeks.

After a stay in the smaller aviaries while his foot continued healing he was unable to fly more than 50 metres when he first entered the PSFA. He would go to ground, heavily mouth breathing, wings spread and climb up onto a stump where he would sit for many hours. There is no way he would have been able to achieve normal Peregrine Falcon survival feats at this stage.

It took him several more weeks to recover a measure of fitness I was happy with; classically the 10 km at 70 km/h seems to be the benchmark. It is incredible how during these marathon efforts they fly within just a few centimetres of the shade cloth as they go round....proving also that their manoeuvrability and sight are doing just what is required.

Eventually, with the last of the glass having worked out of his foot, the wound healed, and his conditioning was completed. He went back to his area and the first thing he did was take off beautifully, circle about and head to the nearest tree overlooking a dam with much carry on from the resident duck population. He swooped, and I couldn't watch anymore!

Before and after images...



The Story of two Sea-Eagles



These two birds arrived within three weeks of each other. Both came from the Central Coast, and came in through two different carer organisations, the adult having been found first.

The new fledgling had been found in a chicken coop by a friendly chicken owner. Severely emaciated, the bird was weak to the point of being unable to stand and had clearly been unable to fend in the wild.

The adult had been found shot, and was well looked after at Taronga Zoo, albeit with several wing fractures that generally would not have had good release potential.

Following weight gain and an increase in physical abilities, the juvenile was placed, in one of the 9 m aviaries that adjoin the PSFA.

The adult, having already been at Taronga and needing only “build up” and “potential for release studies” was also placed in a 9 m aviary as an adjustment prior to release in the PSFA. She was then allowed access to the Free-Flight.

The youngster meanwhile was progressing through the system and was finally allowed access to the PSFA feeder aviary.

Immediately the two birds began calling; I had noticed much vocalisation from both birds, a species that I usually observe as quiet and private. The birds moved to a point where they were only separated by stainless steel and shade cloth. Their distress at being separated was palpable, and after much intense watching on the Vetafarm CCTV system they were allowed in together.

They allopreened and talked for hours, and were inseparable until they were released back up the coast together around two months later.

Following up with much detective work I established that the adult had been shot almost 3 weeks prior to the severely emaciated youngster coming into care 20 km away.

Could it have been that the adult was the parent bird, the remaining adult (if indeed it had also not succumbed to foul play) could not cope, and the juvenile had done the best it could to survive?

We will obviously never know for sure but the joy these two birds felt when allowed together was heartbreaking.

There is an argument for greater liaison between carer groups, cooperating together for the greater good.

The fight and spirit these birds display through their incredible will to survive never ceases to amaze me.

There are so very many stories I and others who have witnessed them could share. I will end on one that has potential for much thought, and perhaps encourage greater collaboration between carers.

This beautiful newly fledged Wedge-tailed Eagle came to me from someone who thought she could be kept and trained even if she couldn't be released. A licensed raptor carer, the person just simply did not understand the bird and her needs.

She had survived for many months in a small pen but had stopped eating and it was thought by her rehabilitator that "a twirl in the aviary" might renew her spirits.

On examination she had severe osteomyelitis where illegal jesses had been placed on her legs to handle and try and fly her, one foot was gangrenous, and there was a hole in the patagium of one wing that your fist could fit through. As a new fledgling she had been caught on barbed wire.

Vet Dr Charles Carter and I had no need to even talk, she was quietly and quickly relieved of the suffering she had endured in her short, terribly sad life.

These images were all taken when she was on her way to final peace, and was suffering no more.

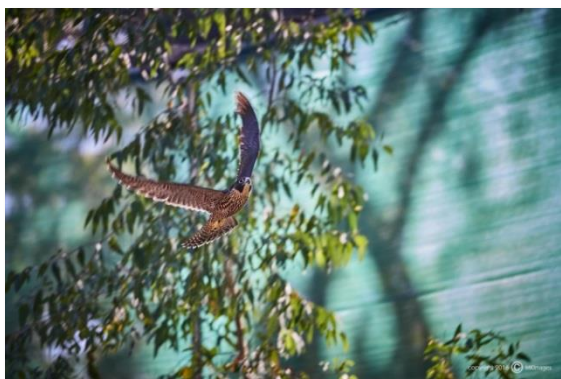
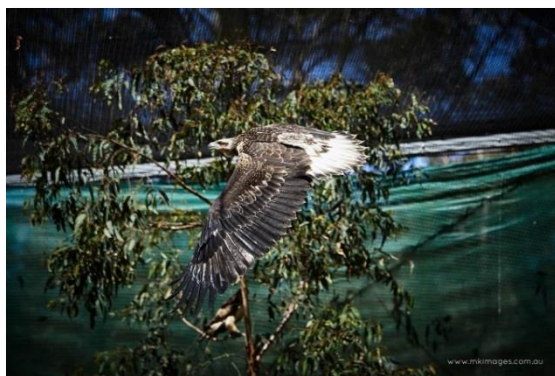
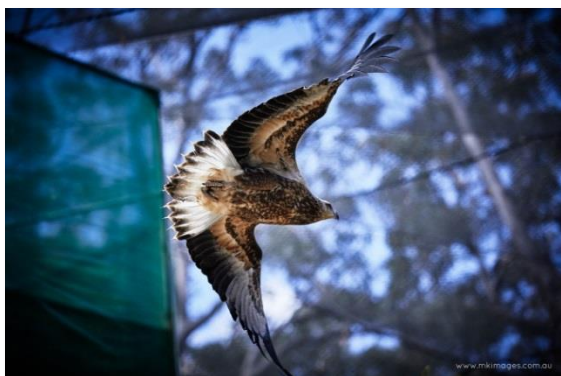
I cry even as I see these again – this is just so unnecessary and we should be so far beyond practices like this.

I did what I needed to do for her, and the other birds who suffer through lack of knowledge, the birds who are released with no hope and the carers who try just so hard to do the right thing but often without essential training or equipment.



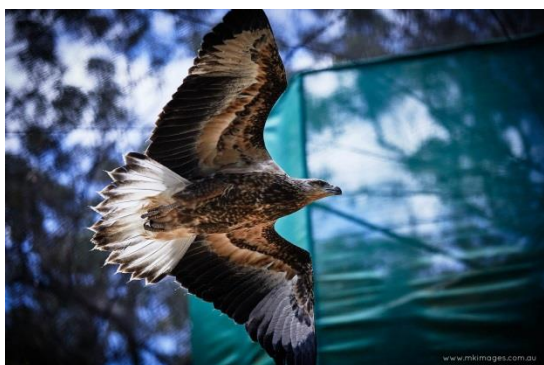
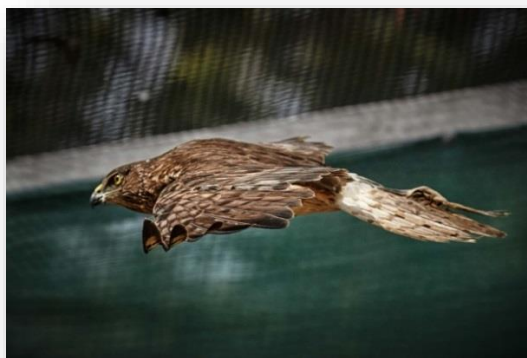


Flying and interactions – more images









CONCLUSIONS

These birds are the sky hunters, the athletes of the sky, and best practice husbandry and supreme fitness are essential to their successful rehabilitation and release. As discussed, the benefits of the round aviary are numerous, from an observation point as well as the levels of fitness and healing that can be achieved.

Too many species are already in danger of losing their foothold on the planet.

Raptors are still persecuted, shot, poisoned, caught in traps, caught in the torture that is barbed wire, caught illegally and of course suffer motor vehicle traumas.

Every bird we *successfully* rehabilitate and release is, of course, a win for that bird but also hopefully another one of the species out there with the potential to breed.

‘Success’ isn’t the bird flying off over the hill as we walk back to the car pleased that we have done a good job. ‘Success’ is demonstrating as best we can prior to release that the bird really has resolved all issues, is strong and fit with all anatomical components observed to be functioning well, and that the bird, as in the case of chicks that cannot be reunited, knows what it needs to know to survive. I now know I have never been able to do this adequately in a conventional rectangular aviary. Prior to constructing the PSFA I had never witnessed the interactions nor appreciated the mental capacity of these magnificent birds.

By appreciating the intricacies of successful raptor rehabilitation, by working, learning, sharing and understanding together and by embracing knowledge from countries that are just so good at this we can make a difference, a huge difference, for them, for our vets who help us, and for us as their carers.

We put countless hours of energy, love and heartbreak, as well as the financial toll, into the work we do and we deserve to be equipped with the best knowledge possible to help us help them. We don’t assist these birds so that they can remain in permanent care or be released and die; we do it to give them another chance of a successful life back where they belong.

Let’s hope that if we work as a collective we can secure a bright, positive and professional future for the sector.

By doing so we can achieve the very best results for the birds whose lives and futures are in our hands. Each time another one enters our world, a win for that individual means another out in the wild with breeding potential.

Reference:

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