A PEREGRINE DIARY

CLIFF-HANGERS

TEXT & PHOTOGRAPHS BY ANDREW JENKINS

In our February/March 2010 issue, **ANDREW JENKINS** described his daily interactions with the Peregrine Falcons of the Cape Peninsula, taking us through the trials and tribulations of both birds and biologist in his study of this fascinating population. We concluded the article as the birds were hatching their young. Here, in the second instalment of diary entries, the season continues and the chicks are getting old enough to ring. ▷

ZELDA BATE

pocket rockets

[THE FALCON'S] CONSTANT RACKET GIVES ME AN IDEA OF WHERE SHE IS AND ALLOWS ME TO ANTICIPATE EACH ATTEMPTED STRIKE, BUT ... THE GLANCING BLOW STILL COMES AS A SHOCK

Above *Hurry up and wait. The author tests his patience on the east side of Table Mountain.*

Previous spread *Some aspects of life may be tougher for Peregrines living on cliffs in the deep south of the Peninsula than for their urban cousins, but their chicks certainly enjoy better views as they grow up.*

3 November

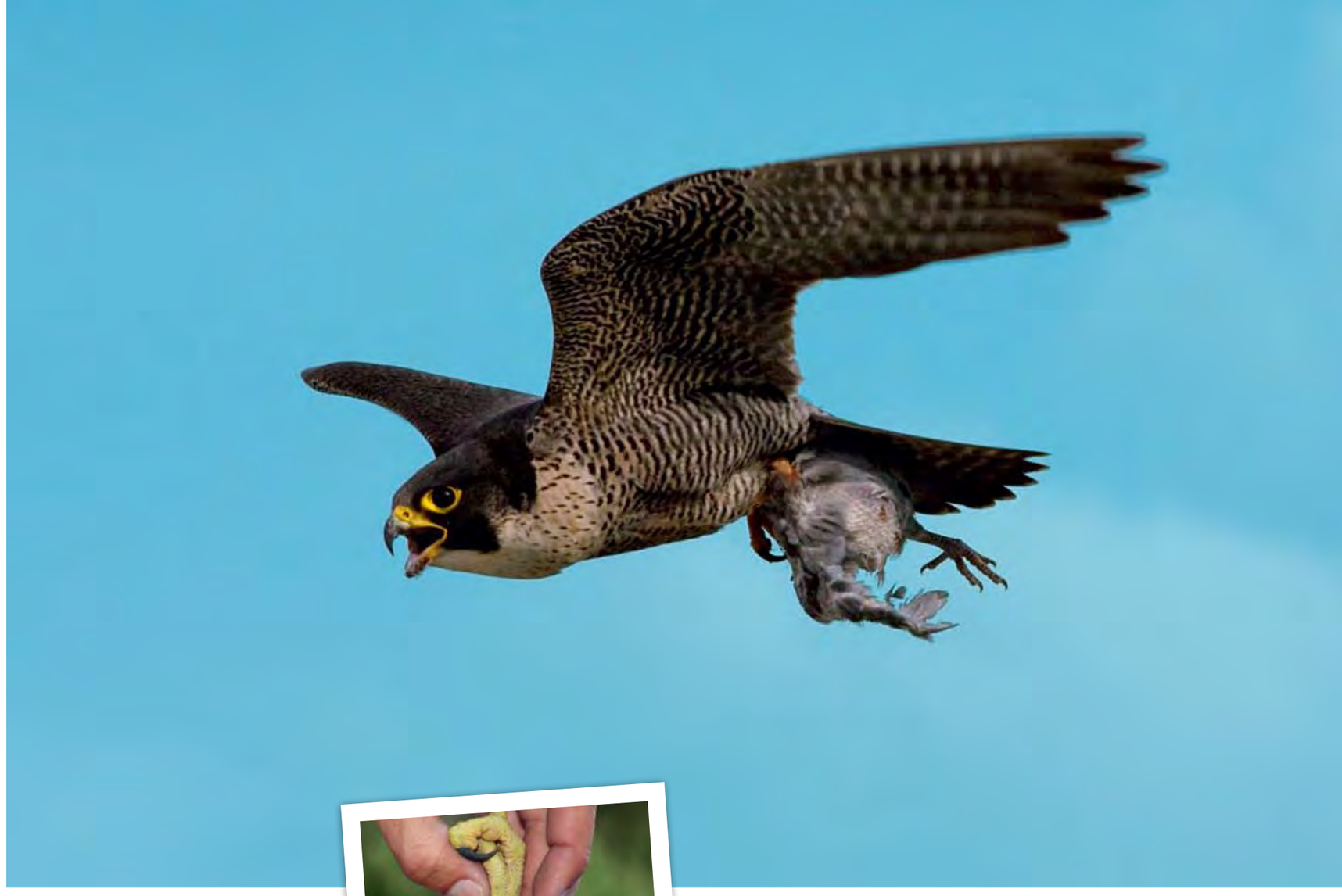
I'm at the Red Cross Children's Hospital, walking along an outside ledge on the sixth floor, wearing a scrum cap and a thick denim jacket and toting a couple of shopping bags. The resident Peregrine pair are cackling in alarm and translate this noise into rapid and aggressive action as I approach their nest box. They take to the air in a flurry of powerful wing beats, then dive at me, homing in on the back of my head. The female has the harsher, more resonant voice and is altogether more serious about taking me on. Her angry calls rise to a crescendo as she whooshes over me, then recede as she rises, building height and momentum before turning for another pass. Her constant racket gives me an idea of where she is and allows me to anticipate each attempted strike, but as she thumps into my upper back, the glancing blow still comes as a shock.

I crouch at the entrance of the nest box and peer in. Four pairs of large, dark eyes stare back at me, each of them set in a bobbing, fluffy white head that is mounted on a dumpy, half-downy, half-feathered body supported by pale yellow, super-sized feet. The chicks are backed into the far corner of the box and clearly don't like the look of me. One of them begins a passable imitation of its parents' alarm calling and the others soon follow suit. The harsh ruckus the chicks create within the box merges with the cacophony of the adult birds beyond, producing a wave of the most riotous and unpleasant sound.

The female zooms in and deals another telling blow, this time to the side of my head, which leaves my ears ringing. I guess the aim of this physical and auditory onslaught is to panic and confuse a would-be predator and for a moment I do consider retreat. Then I steel myself to the task at hand and start gently wrestling the chicks into my padded shopping bags.

November is an increasingly hectic time for me in the field. Most of the Peninsula's Peregrine pairs lay eggs within the first three weeks of September and the hatchlings emerge about a month later. Nestlings are best ringed when they are between three and four weeks old – as soon as their legs and feet are fully formed and before they are likely to even think of jumping off the nest ledge as I approach – so the ringing frenzy commences promptly in the first few days of November and extends into mid-December at least.

Once I've filled my bags with two chicks each, I carry them carefully to a more sheltered section of the building. Here I'm met by Hilary Barlow, a UCT academic based at the hospital's training facility. Hilary has monitored the Red Cross Peregrines throughout the past two seasons and is a great help at ringing time. The operation can be completed more efficiently with an extra pair of hands, and sites such as this on accessible building ledges afford me just such a luxury.



Quickly, we get out the ringing kit while the adult birds continue to express their disapproval in the background. This is the first brood of the season, so it's particularly important that I concentrate and get all the steps right. Each chick must be extracted from its bag – wriggling, biting, flapping and grabbing all the while – put in the processing bag, weighed, and sexed on the basis of mass and foot size (females are about 40 per cent heavier than males and have correspondingly larger feet). It is then banded with a unique combination of numbered SAFRING and aluminium colour-rings. I also take a drop of blood from most of them for subsequent genetic analysis. As the season progresses, this will become a more practised routine, but initially I need to take my time and cross-check everything. Once all the chicks have been recorded, they are lined up for a group photo, with them all standing or sitting with their legs extended, clearly showing their colour-rings for posterity. Then they go back into the shopping ▷

Above *Breeding isn't for sissies! A female shows signs of strain as she hauls most of a recently caught pigeon back to her nest site. Although male Peregrines generally do most of the provisioning for the family, females may assist, particularly once large broods approach fledging age and food demands escalate.*

Left *Ringing must be done carefully and accurately and can be a tense process. It's essential to ensure that the rings fit each bird comfortably and that the colour combinations used are unique and correctly recorded.*

falcon facts

The Peregrine Falcon *Falco peregrinus* is one of the most widely distributed bird species on earth, with more than 20 putative subspecies spread over every major land mass except Antarctica. The northern races (*F. p. calidus* and *F. p. pealii*) are the largest, up to twice the size of the smallest, tropical birds (including the African Peregrine *F. p. minor*).

The Peregrine has all but annexed the role of specialised aerial hunter of birds across its range. It also exhibits a high degree of reversed size dimorphism: females are 30–40 per cent larger than males, theoretically to enable males to catch smaller, more agile prey. While no slouch in level, powered flight, the Peregrine is designed to achieve extreme speed in rocketing, near-vertical dives. With its streamlined, heavily muscled body, compact plumage and stiff, pointed wings, it uses height and gravity to plummet earthwards at speeds of up to 400 kilometres an hour (see *www.youtube.com/watch?v=j3mTPEuFcWk&feature=related*). Large, long-toed feet for striking and grasping flying birds and a heavy, toothed bill for dispatching struggling prey in flight complete the bird-hunting package.

As a widespread apex predator, the Peregrine is a valuable indicator of environmental pollution and ecological imbalance. In the 1950s and '60s American and European Peregrine populations were decimated by inorganic pesticides.

There is a wealth of published information available on Peregrines. If you're keen to learn more, try www.peregrine-fund.org/explore_raptors/falcons/peregrin.html *and* www.peregrine-foundation.ca/webcams.html *for starters, or read Ratcliffe, D.A. (1993).* The Peregrine Falcon. *T & AD Poyser, London.*

Opposite, above *Two 26-day-old chicks relax after being ringed at their unusually floral nest ledge.*

Opposite, below *Wetland birds are a recent addition to the Peregrine's diet on the Peninsula. This sample of bones and feathers recovered from an urban nest box includes the remains of six Pied Avocets and two Little Grebes, as well as the more usual doves and small passerines.*

bags for the return trip to the nest box. The adults have already calmed down and the female is at the nest, checking out her jewellery-clad young, as I exit the building. One site down – how many still to go?

10 November

My field schedule has been badly affected by unseasonal, drenching rain and I've had to delay ringing at several locations pending breaks in the weather. I'm slowly working through the sites and today finds me at a block of flats in the northern suburbs, with my family in tow as field assistants. It's still drizzling as we step out on the roof-top, dodging puddles of water to the nest box, which contains two chunky female chicks. The adults at this site are far less aggressive than the Red Cross birds, and whoosh and shout around us rather tamely by comparison, their responses further tempered by their heavy, soggy plumage. Amazingly, the chicks are nice and dry, and seem well fed and healthy in spite of the trying conditions. We weigh, ring, bleed and photograph them as quickly as possible, then scurry back indoors as the rain starts to pelt down again. I can't remember ever experiencing such a protracted period of heavy rain in November, and can't help wondering if this is a product of climate change.

14 November

Yesterday I decided to stall on ringing at a quarry site in the north (again because of rain) but must get this done today. I arrive at the site in the late afternoon to find it bathed in sunshine. Work has just stopped, the massive trucks, diggers and loaders are parked near the entrance to the quarry and the haze of dust created by the day's business is starting to settle – perfect timing. I drive to my anchor point and drop a rope from my truck's bumper down the short, neatly cut face of the quarry to the nest ledge. The adult birds scarcely have time to register the intrusion before I am back up at the vehicle with a full shopping bag, preparing to process two 26-day-old chicks on the tailgate.

Suddenly, through the sound of the protesting falcons, I become aware of an emergency siren blaring, and the quarry manager drives up hurriedly alongside me. He asks me to leave the quarry enclave immediately as they are about to ignite several tons of explosives at a lower bench in the pit. I quickly pull up the rope, pop the bag of chicks on the passenger seat and head for shelter. For absolute safety, I'm asked to back off as far as the entrance to the quarry on the main road, more than 500 metres away, and I've barely had a chance to start ringing the first chick when the blast goes off – first a deep concussion, then a rumbling roar and finally a huge, drifting bank of shifting debris.

A little later, the chicks ringed and safely back with their parents, I have a chance to chat to the blasting team. Apparently this was a relatively small

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explosion, but other, bigger blasts are scheduled for the run-up to Christmas. They promise to try to work around the nesting Peregrines (as usual) and to keep me posted on developments. As I leave, I wonder how and why the birds continue to flourish in this devastated environment.

15 November

The weather is finally showing signs of returning to something like its normal early-summer pattern, with the dry south-easterly wind blowing strongly. The weather-enforced delay has meant that I've neglected some of the cliff sites in the south. Having spent some time watching the Cape Point nest cliff in September and confirming that the pair was incubating a clutch, I'm worried that any chicks they may have produced will already be too old to ring.

I usually try to avoid the Point when the south-easter is blowing, but today I'm forced to endure it. From the northern arm of the nest cliff amphitheatre, I can just about see onto the ledge the birds have selected this year and battle my way towards it against the gale that must be gusting at well over 80 kilometres an hour. I scan the cliff with my binoculars, looking for the right spot, and my heart sinks as I locate a well-whitewashed alcove with two almost fully-feathered nestlings sitting expectantly at the edge of it. These chicks are more than 28 days old, hopelessly too developed for me to try to ring them, especially given that they are positioned under an overhang, and I'd need to do quite a bit of swinging in and grappling to access them. Before I could get myself onto the ledge, the chicks would almost certainly have jumped to their deaths in a panicked attempt to escape my attentions. It's simply not an option.

I'm deeply disappointed to have missed out on ringing these chicks and hang around for a while feeling sorry ▷

for myself. Before long, the female of the pair arrives over the cliff and starts complaining about my proximity to her nest ledge. It's not often that you see a Peregrine hampered by wind – they normally revel in it – but even this Cape Point bird, which operates in almost constantly windy conditions, is being visibly buffeted by the air ripping viciously over the ridge top. Just before I leave, the male arrives with food and the chicks are fed. It's good to know that things are progressing well at the nest, but what a pity about those ugly, unringed legs!

10 December

The latter part of the Peregrine season is perhaps the most enjoyable for me, not just because most of the blood, sweat and tears episodes are behind me, but because I get the chance to watch the young of the year during their formative first few weeks out of the nest. Once they get past the completely goofy, initial stages of fledging, including the painful process of learning to get airborne and land without crashing, young Peregrines enter a golden period of adolescence. Their days are made up of extended bouts of energetic flying – hard flapping and dynamic wind-soaring, swooping and diving – interspersed with periods of complete inactivity, often lying prone somewhere in the shade, fast asleep. Much of their flying time is spent interacting with their siblings (or with a designated adult in single-chick broods), tail-chasing and grabbing, sneaking up from behind or stooping down from above, all the while screaming loudly, presumably to remind their folks that they're up and about and feeling peckish. When food comes, chaos ensues, as the hapless provisioning adult, haggard

Below *Some time after fledging, all four of the Red Cross youngsters convene a meeting at their nest box.*

Opposite *Sporting his colour rings, one of the Red Cross chicks practises the 'blind-spot approach' on his brother.*

and tatty in its moult, is beset by up to four keening youngsters, all determined to get the meal but none skilled enough to take it with any finesse or accuracy. For the rest of the time, the innocence and sheer extravagance of the young birds' play is enthralling and the gawky humour of their demeanour is wonderfully infectious. A couple of hours spent in the raucous company of Peregrines at this age is soul food of the rarest kind.

Today I return to the Red Cross site and position myself on the roof of the building, where the four fledged chicks like to surf the wave of turbulence created as the south-easter heaves over the hospital. I don't have to wait long before two and then three fledglings come up to check me out. Resuming their free-for-all, they treat me to some of the most outrageously dexterous high-speed flying, all at ludicrously close quarters. I make a vain attempt to photograph this phenomenon, but don't come close to doing it justice.

20 December

It's my last ringing session of the year, at a disused quarry on the Tygerberg. The male of this pair disappeared earlier in the year and had been replaced by a new, marked bird at the start of the season, only to reappear late in September. This unusual bit of manoeuvring has meant that egg-laying was delayed until well into October and the two chicks raised are only due to fledge in early January. The ringing process goes off without a hitch and once I've coiled and packed the ropes for the last time until next season, I stop to catch my breath before the trip home.

This quarry has a stupendous view over the Cape Flats towards Table Mountain and the South Peninsula, encompassing in one vista perhaps as much as half of my Peregrine study area and including the full gamut of nesting habitats used, from the misty crags of the mountain massif towering in the background to a selection of low, nondescript commercial buildings in industrialised Cape Town. As my ringing study has progressed over the years, some of the contrasts in the family fortunes of city- versus mountain-dwelling birds have begun to emerge, and with time and careful analysis I'm hoping to formalise these results.

One thing I know already is that the mechanics of this population are complex and strongly affected by seemingly random events and the fortunes or tragedies of individual lives. For example, ▷

A COUPLE OF HOURS SPENT IN THE RAUCOUS COMPANY OF PEREGRINES AT THIS AGE IS SOUL FOOD OF THE RAREST KIND

keep looking

Please keep a look out for colour-ringed Peregrines, on the Cape Peninsula and further afield, and report any sightings to Andrew Jenkins on e-mail *Andrew.Jenkins@uct.ac.za* or tel. +27 (0)82 959 9238.

the male at this site is 11 years old, has lived at this quarry for eight years, fledging eight chicks in that time, of which only one has recruited as a breeder. Remarkably though, that female offspring of 2002 has already produced nearly 20 young of her own, including some already established as breeders themselves. The net result is that this seemingly quite unsuccessful male lives within direct (if distant) view of five of his great-grandchildren, newly fledged in two urban broods. Quite how he has achieved this burgeoning dynasty, in contrast to the rapidly dying genetic lines of other, apparently more productive birds, is a mystery and may well remain so in spite of my ongoing efforts to find pattern and predictability in the lives of these amazing birds. My years of toil might not lead to a conclusive end.

Sitting back in the sun, with yet another Peregrine pair shouting at me from overhead, I take strange comfort in this thought. □

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A male Peregrine watches over his patch of the Cape Town City Bowl from his favourite vantage point on the front face of Table Mountain. In this Peninsula population, core territories are centred on nest sites and are held exclusively of other birds. There may be some overlap in foraging ranges, which are highly variable in size, with pairs resident on the mountain chain venturing up to 10 kilometres out on to the Cape Flats to exploit the urban/suburban prey base, and in some cases passing over other occupied territories to do so. Urban pairs rarely range more than one to two kilometres away from their chosen buildings.