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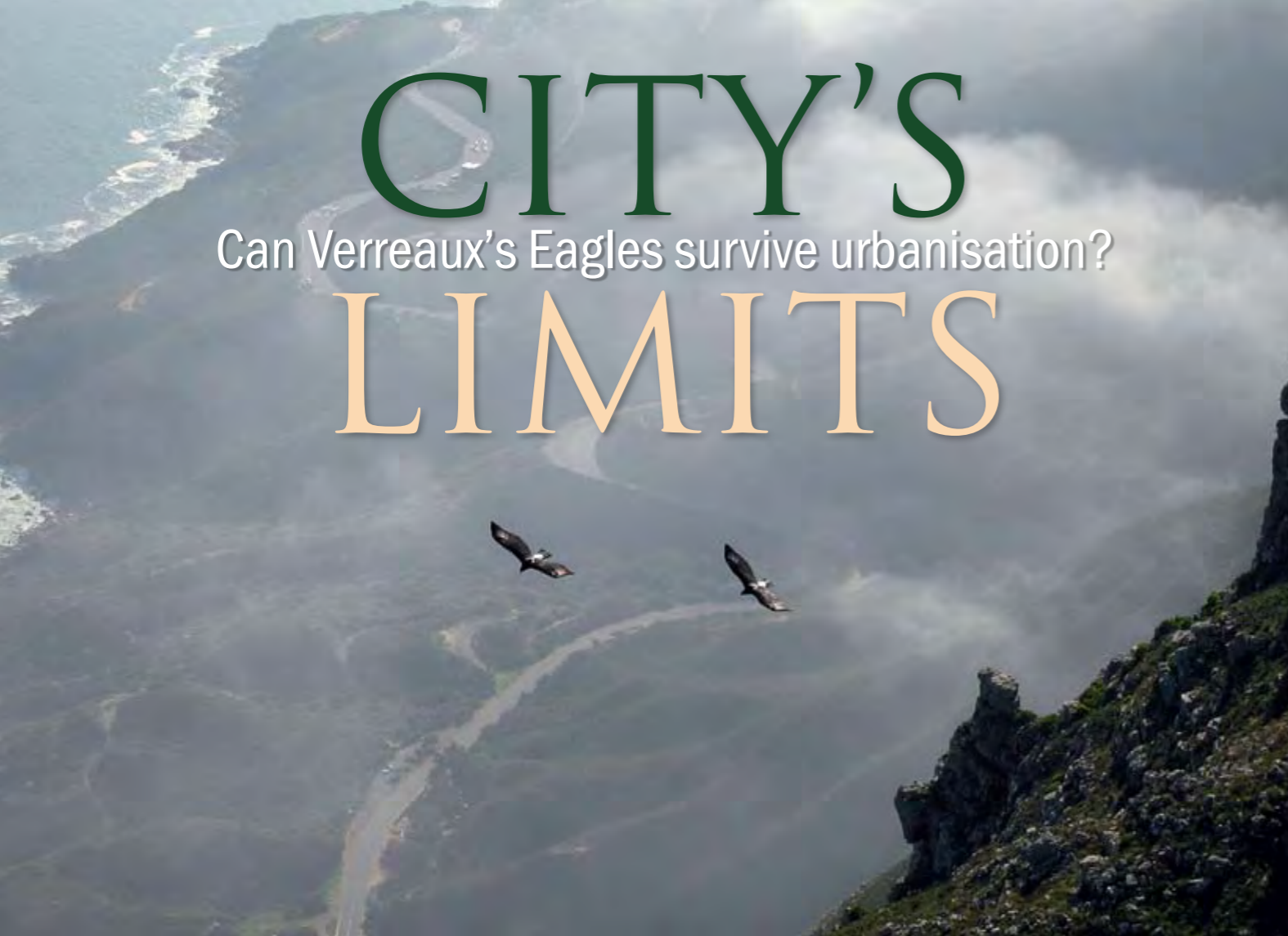
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CITY'S LIMITS

Can Verreaux's Eagles survive urbanisation?



MEIDAD GOREN

The authorities of South Africa's two largest cities have the opportunity to protect and encourage a superb natural occurrence – the pairs of Verreaux's Eagles still to be found breeding within the green urban areas of Johannesburg and Cape Town.



Some raptors have done extraordinarily well as humans change the habitat around them. Some specialised species, such as the Black Sparrowhawks of peninsular Cape Town, have been provided with nesting habitat (in the form of plantations) and food in the form of a surfeit of doves (see *Africa – Birds & Birding* 9(2): 46-52, 2004). African Goshawks hunt through suburban gardens, preying on small birds and doves supported courtesy of bird feeders and gardeners. Lesser Kestrels in the Karoo use isolated eucalyptus trees, often within suburban areas, where thousands of them roost

together. Elsewhere, Merlins and Long-eared Owls have taken up residence in cities in Canada, where they breed, feed and thrive alongside a public often unaware of their presence. Peregrines, possibly the best-known examples, have managed to live high above the normal hubbub of urban sprawl, breeding throughout their range on grain silos and many high-rise city buildings with a view.

However, there are numerous species that are not doing so well, as their habitat is degraded and their hunting areas are destroyed. Among these are the vultures and other scavenging species which run the gauntlet of poisons

and bush encroachment, the raptors which need pristine woodlands rather than those that have been burnt and logged, and some, such as the harriers and the African Fish-Eagle, which live around the fringes of degraded and drained wetlands.

What of our montane eagles? Can species, such as Verreaux's (Black) Eagles *Aquila verreauxii*, which live alongside man, continue to thrive in their mountain retreats? Two closely studied examples, one from Johannesburg and the other from Cape Town, allow an insight into the effects of urbanisation on eagles.

The Roodekrans pair live in Johannesburg on the fringes of the Walter Sisulu National Botanical Garden. Since 1993 they have been breeding there under the watchful eye of the Black Eagle Project, headed by Libby Woodcock. The

second pair live on the west side of the Cape Peninsula mountain chain, in the Silvermine area of the Table Mountain National Park, just north of Chapman's Peak. There they have bred successfully for three years, monitored weekly by their finder and eagle-advocate Lucia Rodrigues. These pairs share similarities and differences that allow us to assess if Verreaux's Eagles can survive human encroachment.

When the Roodekrans pair began to bring chickens to their nest, it was apparent that the dassie (rock hyrax) populations had begun to decline in the area. It was no surprise, as urban sprawl had been consuming even dassie habitat from the early 1990s. Because the eagle pair had stopped breeding, Woodcock's Black Eagle Project stepped in to supplement their diet with food such as dassies, rabbits and birds. The efforts of ▽

Below An adult Verreaux's Eagle arrives at its nest on the Roodekrans in the suburbs of Johannesburg. This pair of eagles has bred remarkably well over the past decade, but they have become increasingly dependent on supplementary food provided by local conservationists.

Opposite The Silvermine Verreaux's Eagle pair, cruising over Chapman's Peak Drive, Table Mountain National Park.



ALBERT FRONEMAN



the project have been rewarded, as birds have bred continuously since 1993, laying the first known three-egg clutch ever recorded and achieving a high breeding success rate. From a conservation angle, the project no longer has to deal with irate chicken-owners demanding revenge on the eagles for taking a few fowl, as they did pre-2001. However, given that the population of dassies, the chief prey of Verreux's Eagle, has not returned for nearly 15 years – their usual long-term cycle – it seems that this pair may need continuous supplementary feeding if they are to survive.

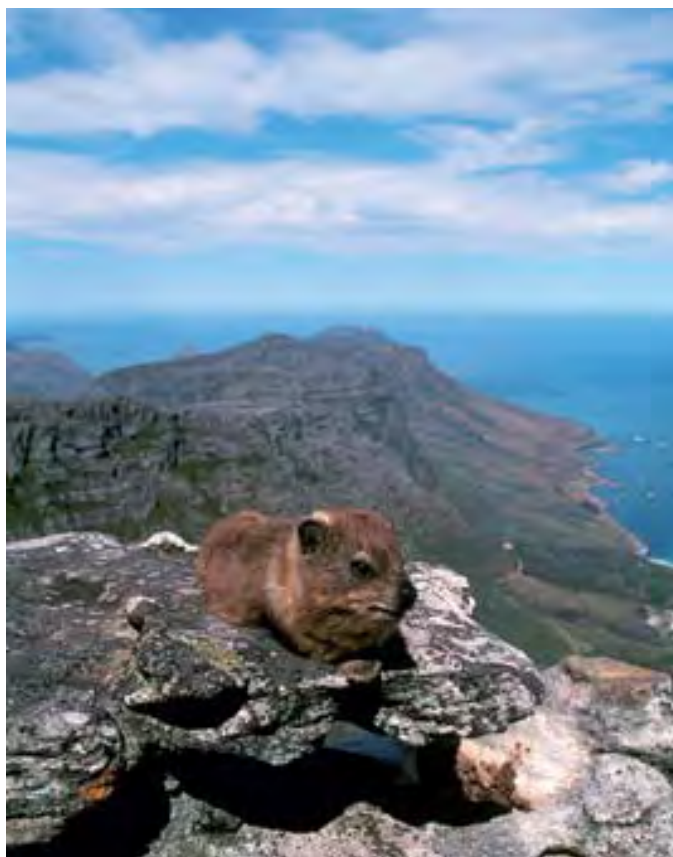
Is a similar story apparent for the Silvermine pair near Cape Town? According to raptor expert Peter Steyn, 20 years ago there were five to seven pairs of Verreux's Eagles breeding on Table Mountain, and many of their huge nests are still obvious today, recorded in the raptor surveys done by Andrew Jenkins and Anthony van Zyl. However, these surveys have shown that only two pairs of eagles are presently resident in the Table Mountain area. One pair frequents the front face of the mountain, around the cable car where dassies still occur; the other – the Silvermine pair – is the only pair on the mountain which has been recorded actively breeding in the past two years.

So, is urbanisation affecting the food supply of the eagles on the mountain? It is no coincidence that both pairs of eagles on Table Mountain breed where hyrax populations remain intact. At least for the 'cable car' pair, visitors feed the dassies and this appears to have stabilised the population sufficiently to support the eagles. This notwithstanding, bird prey, including pigeons and guinea-fowl, are sometimes delivered to the Silvermine nest, indicating a dearth of dassies in the general environment.

Does human disturbance *per se* limit eagles breeding in urban areas? This has always worried the eagle-monitors at Silvermine, considering the publicity and increasing numbers of people watching the eagles breeding below the

Verreux's Eagle in flight. Can this spectacular and remarkably adaptable predator persist in the face of urban development?

RICHARD DU TOIT



PETE OXFORD

The rock hyrax or dassie is the staple prey of Verreaux's Eagles. This dassie was photographed at the upper cable station on Table Mountain, a popular venue for tourists, dassies and eagles.



MEIDAD GOREN

The Silvermine pair seem singularly unperturbed by human activity in the vicinity of their nest on its Table Mountain stronghold.

YOU CAN HELP...

The Black Eagle Project at **ROODEKRANS**, incorporating the Sisulu Urban Wildlife Reserve Working Group, is a group of volunteer conservationists working hard to preserve the natural habitat surrounding the botanical garden. Typically, this requires public support and financing – please support this initiative as they urgently require funds for legal costs to stop encroaching urbanisation. If they are not successful in halting or minimising development, it will only be a matter of time before the eagles vacate their nest site in the Walter Sisulu National Botanical Garden. For more information, visit www.blackeagles.co.za or e-mail verreaux@mweb.co.za.

The website is currently transmitting webcam images of the Roodekrans nest.

For more information about the Verreaux's Eagles on Cape Town's **TABLE MOUNTAIN** range, e-mail Lucia Rodrigues of the Western Cape Raptor Research Programme at signal@mweb.co.za.

lookout. However, given the *laissez-faire* attitude of the female when she is brooding or incubating (barely even glancing at the observers) and the male cruising by at eye-level and delivering prey at regular intervals, current levels of human activity around the Silvermine nest do not appear to be an issue (although SANParks staff sensibly close a popular paraglider and hang-glider launch site situated directly above the nest for the duration of the eagle breeding season). The nest has also been successful for three consecutive years, providing a stream of passionate observers and enthusiasts with amazing insights at no obvious cost to the birds. That the cable car area is generally the busiest place on Table Mountain also argues against reasonable levels of indirect disturbance being a negative factor for 'urban eagles'. So it appears that Table Mountain's large contingent of casual tourists and hikers are unlikely to account for the low breeding numbers of Verreaux's Eagles there.

There are two other areas in southern Africa which spring immediately to mind where Verreaux's Eagles occur at unexpectedly low densities – the Lesotho Highlands and the unprotected fringes of the Matobo Hills in

Zimbabwe. Both are heavily populated by rural communities which have decimated local dassie populations. Thus it seems probable that the lack of dassies in urbanised environments has caused the decline of Verreaux's Eagles around South Africa's largest cities, and that only food supplementation of the pairs directly (or possibly indirectly, in the case of the dassie population at the cable car) might keep the eagles from disappearing from these areas.

What is the future for these birds? We know of no other African cities where Verreaux's Eagles are regular within the city limits. It may be wishful thinking to believe that the Roodekrans pair will survive further urbanisation and reductions to their prey base as Johannesburg's population further erodes its green spaces. However, the authorities of both Johannesburg and Cape Town metropolises should view the future survival of Verreaux's Eagles in their cities as a measure of the success (or failure) of their ability to save green urban spaces and retain intact some of the biodiversity that has long been associated with these cities and is now in danger of being lost. □

ROB SIMMONS, LUCIA RODRIGUES, LIBBY WOODCOCK, PETER STEYN & ANDREW JENKINS