

24th Annual Parrot Count- Report on the 2021 Cape Parrot Big Birding Day

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Figure 1. A pair of Cape Parrots in a snag near iNgeli, KwaZulu-Natal, on the day of the annual count in 2021 (Photographs© Sascha Dueker).

Background

The annual Cape Parrot Big Birding Day (CPBBD) was initiated in 1998 and held annually since. This is a conservation effort to quantify the numbers of Cape Parrot (*Poicephalus robustus*) (Figure 1) in the wild and involves citizen scientists. In the first few years, the coverage of the distribution range of the parrots was inadequate but improved with time. In 2020 unfortunately, because of the COVID-19 restrictions, a total count was not possible. One of the problems with a national count is choosing a day with suitable weather across the area to be covered by the count. Unfortunately, in 2021 a major cold front brought rain and wind to the Eastern Cape and KwaZulu-Natal Provinces on the CPBBD, making observations difficult. So although a total count

was conducted, it is likely an underestimate. In addition, despite reduced COVID-19 restrictions (Figure 2), some of the older stalwarts of CPBBD were unable to participate because of the slow vaccination rollout, so as in earlier days of CPPBD, the distribution range was not covered adequately.



Figure 2. Following COVID-19 protocols, some of the University of KwaZulu-Natal participants in the annual count in 2021 who counted Cape Parrots in the iNgeli area near Kokstad, KwaZulu-Natal.

Globally forest habitats are being reduced and threatened by anthropogenic factors. Africa's forests and fauna have been severely impacted. The Afromontane southern mistbelt forests of South Africa typically occur as disjunct patches on south-facing slopes in the landscape mosaic and have a long history of anthropogenic use. Consequently, they are difficult to protect. The Cape Parrot is a flagship species for South Africa's Afromontane/-temperate indigenous forest patches and their surrounding grasslands (Figure 3).





Figure 3. Examples of mistbelt forest and associated grassland on the CPBBD 2021. (Photographs© a. D Rieckerts and b. CT Downs).

As mentioned in previous CPBBD reports, the Cape Parrot was first described by Gmelin in 1788. These birds were described as coming from the ‘Cape’ as that was what the whole of South Africa was called at the time. Later, Clancey (1997) proposed that the Cape Parrot be recognised as a separate species from the two subspecies with which it was previously grouped. This was also supported by morphological and ecological data (Wirringhaus et al. 2002), and several South African bird books followed this change. However, it was only after genetic research confirmed that the Cape Parrot was a separate species (Coetzer et al. 2015) that it was recognised internationally as a separate species. It is the only parrot species endemic to South Africa and is currently one of South Africa’s Endangered birds. It is a similar size to the African Grey Parrot (*Psittacus erithacus*), with its head, neck and body plumage an olive green (Figure 1). All adult birds have orange on the shoulder (bend of the wing) and ankles (tibia), while females generally have orange on the forehead. Males usually lack orange on the forehead, but there are exceptions where a small amount of orange is present. Juveniles have orange only on the forehead and an absence of orange on the ankles and wing. The head and neck are also slightly darker in juveniles.

The Cape Parrot should not be confused with the invasive alien bird, the Rose-ringed Parakeet (*Psittacula krameri*), also known as the Ring-necked Parakeet, which is a medium-sized green parrot with a red bill and increasing in numbers, especially in the greater Durban and Pretoria areas of South Africa.

Historically the Cape Parrot distribution range extended from the forests in the Amatole's in the Eastern Cape to KwaZulu-Natal along the escarpment to Mpumalanga and Limpopo Provinces in South Africa. Its primary habitat is the mosaic of Afromontane southern mistbelt forest patches that are dominated by yellowwoods (*Podocarpus* or *Afrocarpus* species). The parrots also historically visited coastal forests in KwaZulu-Natal, especially during the summer. They are still resident or visit the forests along the Wild Coast of the Eastern Cape.

The present Cape Parrot population consists of three subpopulations, the southern group in the Amatole's in the Eastern Cape, the central group from Ncogbo and Mthatha in the Eastern Cape through to the Midlands in KwaZulu-Natal, and a disjunct northern group mainly in the Magoeboeskloof, Limpopo Province. These subgroups can also be identified genetically (Coetzer et al. 2019). The Cape Parrot has a large and robust bill that enables them to feed on the kernels of various indigenous tree fruits and exotic tree fruits. These indigenous fruits include those from yellowwoods, but when these are not in fruit, the parrots readily feed on the fruit of other indigenous species, including white stinkwood (*Celtis africana*) and wild plum (*Harpephyllum caffrum*). At certain times of the year, parrots will also feed on *Protea* spp. flowerheads outside of forests. The absence of parrots in some forest patches during certain periods are likely because of the absence of food, as the fruiting of their preferred trees may be sporadic and absent in some years. Cape Parrots are known as food nomadics as they regularly move between forest patches for food.

Skead (1971) highlighted that the numbers of Cape Parrots had declined since the early 1900s, particularly in the 1950's, with wild populations estimated as less than a thousand by Boshoff in 1989. Factors contributing to the parrots decline vary in their effects and extent at different locations and include:

- the loss or degradation of their preferred forest habitat;
- food and/or nest-site shortages;
- illegal poaching for the pet trade;
- disease (especially psittacine beak and feather disease virus (PBFDV));
- avian predators; and
- climate change causing droughts that affect forest fruiting.

Standard bird counting techniques are unsuitable for Cape Parrots. Their cryptic colouration combined with dense forest habitats often makes them difficult to locate once perched, but their loud, harsh calls whilst in-flight make them conspicuous. They are most active during the first few hours after dawn and before sunset when they leave and return to their roosts in forest patches, although these periods can be extended during misty conditions. These characteristics allow for a 'total count' of the parrots.

CPBBD 2021

The CPBBD is usually held in April or May when the Cape Parrots move between forests more and often fly to non-forest localities to feed on the fruit of exotic pecan nut trees (*Carya illinoensis*). The CPBBD aims to collect data on the Cape Parrot to determine their occurrence and obtain an accurate population estimate. In addition, data on the presence of juveniles, nest sites, and birds copulating show that there is recruitment. On the other hand, reports of hunting or tree chopping in forests or sightings of parrots that appear to have poor plumage, likely indicating disease, all raise concerns. The Cape Parrot census highlights the importance of a bird unique to South Africa and the importance of protecting the forest patches where these birds occur.

This year the CPBBD was held on the 8th and 9th of May 2021. The CPBBD takes place on Saturday afternoon and the following Sunday morning. One reason for this is that often weather is poor on one of the days (e.g. this year, Saturday weather was particularly rainy and misty with poor visibility in many areas). This split allows for separate afternoon and morning estimates. Some of the same birds are likely counted on Saturday and Sunday, so only one of these days counts can be used. The higher of these for each province are then used to give the maximum number counted.

The areas of South Africa covered by the CPBBD include the Eastern Cape, KwaZulu-Natal, Mpumalanga and Limpopo Provinces, where Cape Parrots occur. This year ~163 volunteers were posted at a minimum of 70 localities across the provinces. As mentioned, the weather and visibility on Saturday were particularly poor in most areas, so only more Cape parrots were seen on Sunday morning. The maximum number of Cape Parrots counted was:

- 716 in the southern Amathole subpopulation (there is a possibility of double-counting with birds flocking to pecan nut orchards),
- 645 in the central subpopulation (187 former Transkei (reduced because of poor visibility) and 458 KwaZulu-Natal) and
- 116 (some heard but not counted) in the northern subpopulation.

Consequently, there were at least 1477 Cape Parrots in the wild on the CPBBD in 2021. This was lower than in 2019, but as mentioned, the weather and COVID-19 restrictions likely impacted the count negatively. There continue to be concerns of declines in numbers of Cape Parrots in some areas of their distribution range, for example, the Boston- Dargle- Balgowan-Karkloof areas in KwaZulu-Natal. A new development in 2021 was the coverage of the Wolkberg, Limpopo Province (kindly coordinated by John Davies). This is an important extension of the distribution range coverage for the northern subpopulation of Cape Parrots.

On Saturday, Cape Parrots were observed at 65% of localities where observers were posted, while on Sunday, parrots were seen at 73% of localities. Nil counts are often frustrating for observers who give of their time to observe, but they provide valuable data.

Other highlights

As highlighted, Cape Parrots are a flagship species for South Africa's Afromontane/-temperate indigenous forest patches and their surrounding grasslands. Many observers recorded other endangered forest species or ones found in the neighbouring grasslands while doing their CPBBD observations. These included the Samango Monkey (*Cercopithecus mitis*) and the Southern Ground Hornbill (*Bucorvus leadbeateri*). Several observers reported illegal logging and/or hunting of wildlife while doing their CPBBD observations, which is of concern.

In 2019, BirdLife South Africa appointed the Cape Parrot Working Group (CPWG) and the Wild Bird Trust's Cape Parrot Project (CPP) in Hogsback as species guardians for the Cape Parrot. The work of the CPWG and the CPP recently formed the content of a public webinar hosted by BirdLife South Africa, where CPP's Dr Kate Carstens joined Prof Downs to discuss efforts to conserve the birds parrots that include the restoration of habitats, establishment of community projects and undertaking of key research projects. Downs and Carstens are co-chairs of the Cape Parrot and Mistbelt Forest Conservation Action Plan and spoke about the habitats, feeding, breeding, behaviour, and major threats to the parrots, while also highlighting the success of initiatives to conserve these birds and their habitats. See <https://www.youtube.com/watch?v=9lio7tFSGfU>

CPBBD 2022- 25th anniversary

In 2022 we will be having the 25th CPBBD, which is a significant milestone. Please diarise **Saturday the 7th May and Sunday 8th May 2022.**

Acknowledgements

As in past years, there were numerous communities involved in the CPBBD. This highlights the importance of the CPBBD in developing interest, knowledge and hopefully conservation awareness. We are most grateful to the various coordinators (Appendix 1) and those volunteers who have participated for many years. Big thanks to Cassie Carstens of the Cape Parrot Project, who made videos to assist new observers and, as coordinator, made sure the southern distribution range of Cape Parrots was well covered (Figure 4). Despite the rain, the observers in the Langeni / Matiwane Region area participated and produced a very detailed summary report for their area (Noma Mbiza, Rolan Venter, Bertus Boucher and Helen Dalton, Indwe Security and Starlight Security, Department of Environmental Affairs (DEA), and various Eastern Cape Government Department participants are all thanked for their participation and detailed observations, Figure 5). We are also grateful for the contribution of Border Bird Club, DAFF, DEA, Rance Timbers, Sappi and Mondi foresters, Indwe Security, the Eastern Cape Parks and Tourism Agency and Ezemvelo KZN Wildlife officials (particularly those from Coleford Nature Reserve),

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Figure 4. Some of the participants in the Amatola area on the 2021 Cape Parrot Big Birding Day. (Photographs© Cassie Carstens).



Figure 5. Observing Cape Parrots in the rainy overcast weather near Langeni, Eastern Cape, on CPBBD 2021.

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Appendix 1. The coordinators of the Cape Parrot Big Birding Day 2021 are thanked for their contributions.

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