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## **BIRDS OF THE BLOEMFONTEIN PENTAD 2905\_2610: A REVIEW OVER A 30 YEAR PERIOD**

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## AVIAN CHANGES

### BIRDS OF THE BLOEMFONTEIN PENTAD 2905\_2610: A REVIEW OVER A 30 YEAR PERIOD

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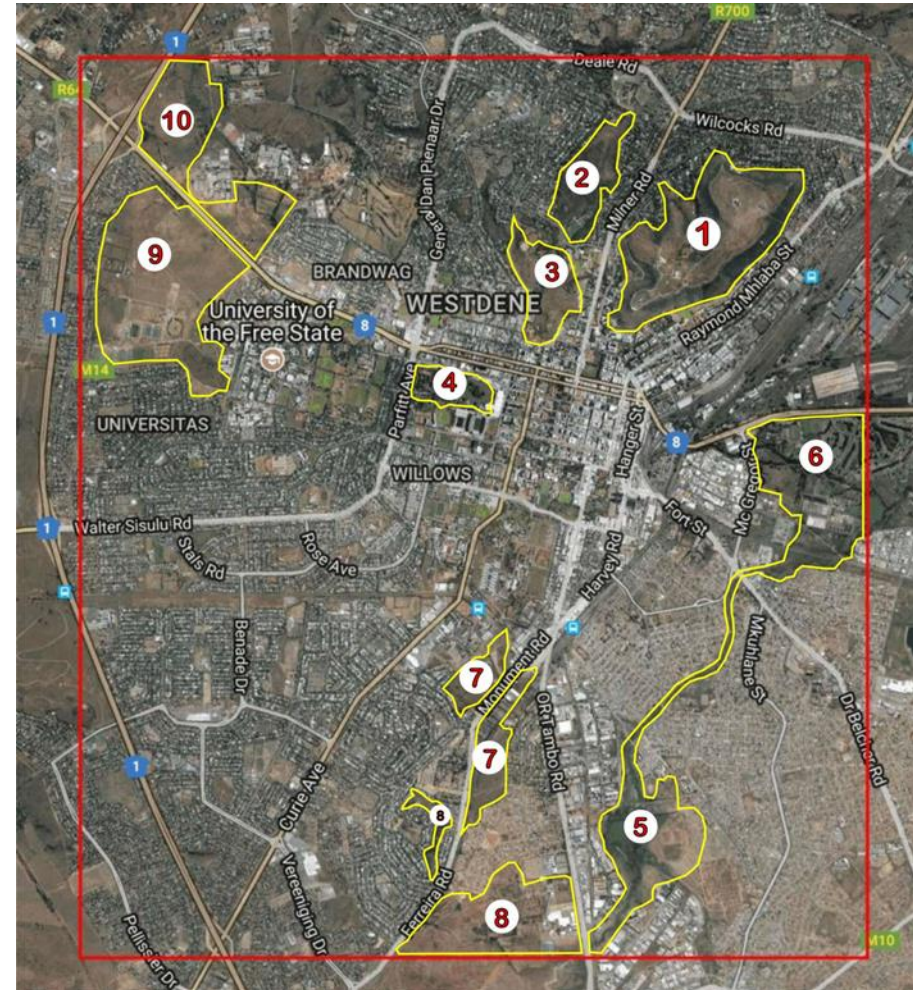
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The Bloemfontein pentad (2905\_2610) is one of the nine pentads of the 2926AA quarter degree square used during the SABAP1 survey (1987 -1992) (see Harrison *et. al* 1992). Before SABAP1, Roos *et. al* (1985a, b, c) published a series of annotated checklists of the Bloemfontein district based on surveys by the "Orange Free State Ornithological Society" (now BirdLife Free State) in *Mirafr*, which also includes the central parts of the city. After SABAP1, Kopij (2001) did several bird counts in the Bloemfontein area (references in Kopij 2001) including an annotated checklist of Navil Hill (Franklins Nature Reserve), and other bird surveys, which were all annotated in a "Atlas of birds of Bloemfontein"; he summarized data over a period between July 1993 to June 1998 (dates correct). Anecdotal bird observations of Bloemfontein birds were mostly published in *Mirafr* under "sightings of interest" or as short snippets. These include the first report dates of birds such as Common Starling, Indian Myna, Black-collared Barbet and other bird species. The birds of the 2900\_2610 pentad (which includes the Free State National Botanical Gardens and Seven Dams area) were published earlier (de Swardt 2014).

The aim of this paper is to review the changes in bird communities and abundance in the central Bloemfontein area (with emphasis on

pentad 2905\_2610), the adaptations of birds to urban areas and the importance bird habitat corridors in a city environment.



**Figure 1:** Map of the Bloemfontein 2905\_2610 pentad with the following localities referred in the text: 1 - Navil Hill, 2 - Oliewenhuis Gardens & Grant's Hill, 3 - Signal Hill & Happy Valley I, 4 - Loch Logan Waterfront, 5 - Bloudam, 6 - Ooseinde Purification Works, 7 - War Museum, 8 - Small grassland areas, 9 - University Sport Fields, 10 - Tempe Military Base.





**Figure 2:** View of Navil Hill from Oliewenhuis. Birds commonly recorded are similar than Oliewenhuis, but several raptor species (Jackal Buzzard, African Harrier-hawk, Black Sparrowhawk and even a Pale Chanting Goshawk) and Karoo Scrub-robin, Cinnamon-breasted Bunting and Red-throated Wryneck a few times. New upgrades and the "Mandela" statue makes Navil Hill a safer place to visit than during the past. Security is at the gate and visitors only have to sign in at the gate (no entrance fees).

Figure 1 illustrates the different habitats within pentad 2905\_2610. This includes mostly the city centre, the wooded suburban area and several open natural areas such as Navil Hill (Figure 2), Grant's Hill (which includes Oliewenhuis gardens) (Figure 3), Signal Hill and smaller natural areas.

The grasslands of the University of Free State, The War Museum and parts of Tempie Military Base also forms part of this pentad. Kopij (2001b) gives a detailed description of the different habitat types in the Bloemfontein area. The only areas with dams and associated water habitat in this pentad are represented by the Loch

Logan Waterfront (central city) (Figure 4) and Bloudam in the southern industrial area (Hamilton and surroundings). Bloudam is also connected to the Ooseinde Purification dams with a drainage line that is surrounded by housing developments. The vegetation of the hilly areas (Grant's Hill, Signal Hill, Happy Valley, Navil Hill and other areas) are mostly dominated by *Olea* spp, *Buddleja* spp and other tree species, and with small grassland communities (e. g. on plateaux of Navil Hill) and open wooded slopes.

The colonization of certain bird species (which were not recorded in SABAP1 period) will be discussed and analyzed by comparing the SABAP1 and SABAP2 data and the occurrences of certain bird populations within the Bloemfontein 2905\_2610 pentad.



**Figure 3:** The *Olea* and *Buddleja* spp dominated vegetation at Oliewenhuis gardens. Oliewenhuis is also a popular bird ringing locality and several ringing demonstrations have been carried out there. Most common recorded species are ChestnutventedTitbabbler, Bokmakierie, Common Scimitarbill; species such as Pririt Batis, Cardinal Woodpecker and LongbilledCrombec are recorded on an irregular basis. Layard's Titbabbler and GreybackedCisticola have been ringed there in the past.



**Figure 4.** The Loch Logan waterfront is situated next to the Zoological Gardens with the island. There is also a heronry (Black-headed and Grey Herons) in the large *Eucalyptus* trees. Reed and White-breasted Cormorants, Red-knobbed Coot and Egyptian Goose are regular species and also occasionally Giant and Pied Kingfishers, Squacco and Black-crowned Night Herons and Moorhen.

## Results and discussion

A total of 202 cards were submitted for the 2926AA QDS during SABAP1, and about 221 species were recorded. During SABAP2, 496 full protocol cards were submitted (by June 2017) with a total of 217 species recorded (See Table 1; Appendix 1). DDS contributed 377 full protocol cards (76.0%) towards the total cards submitted. These include incidental sightings and species excluded from the list which are identification errors (e. g. Olive Thrush and Karoo Prinia).

The total number of bird species recorded during the past 30 years is approximately 262.

The most abundant bird species recorded during SABAP2 are listed in Table 2. Species such as Cape Sparrow, African Red-eyed Bulbul, Cape Turtle Dove, Laughing Dove and Speckled Pigeon were the top five reported species during SABAP2. Hadedda Ibis, Crested Barbet and Common Myna (not recorded in SABAP1) have 90% and higher reporting rates than that recorded during SABAP1.

During the past 30 years interesting changes in bird communities were observed in the Bloemfontein area. These changes will be discussed in light of the data in Tables 1-5 followed by specific discussions on certain species.

A total of 34 birds species were recorded during SABAP2 which were not recorded during the SABAP1 period; these are listed in Table 3. Most of the species have probably been overlooked at localities (or not atlased there) during SABAP1 (e. g. Bloudam area) or not recorded during SABAP1. Some species (about 20 species) are also vagrants to the 2905\_2610 pentad (see notes on certain species in Table 3).

Of these (the 34 species in Table 3), six species are regarded as being successful colonizers in the Bloemfontein area and are discussed below in more detail in the following section:

- **African Harrier-Hawk**

The first published report of African Harrier-hawks in the Bloemfontein area was near the reservoir tower in the Hillsburo area during June 2002 (Nuttall 2002). Since then harrier-hawks were more frequently recorded in the central Bloemfontein area. SABAP2 records reveal a reporting rate of 1.62% (and additional one ad hoc list) and have been mostly recorded in the Navil Hill area and in the city and suburban areas.

- **Amur Falcon**

The first occurrences of Amur Falcons (<25 birds counted) in the Bloemfontein area were made at the *Eucalyptus* trees at Ooseinde east of the city during February 1997 which are used as a roost site by Lesser Kestrels for years (Nuttall 1997). In subsequent years, falcon roost counts (part of the Birds of Prey Working Group count project of EWT) have been made at the Ooseinde and Nelson Mandela *Eucalyptus* roosts in the city since 2007. Amur Falcon numbers average 250 - 300 in 2007 and increased to more than 2000 birds since 2014. These birds usually arrive in December and are present as late as March.

- **Black-collared Barbet**

The first Black-collared Barbet in Bloemfontein was reported during April 1987 (E Hattingh in *Mirafra*), but was probably observed before that time. Since September 1988 more records, mainly in the wooded Dan Pienaar area, were confirmed (but not submitted to SABAP1) (Grobler 1988). Increasingly more birds were reported in the Bloemfontein area from 1992 onwards with the first breeding record in September 2000 (Nuttall 2000a). They were recorded during annual Birding Big Day events in suburban areas adjacent to Navil Hill during November months from the 1990's onwards. The first bird ringed at Oliewenhuis was on 30 April 2003 (ring no: 4A15844). During SABAP2 a reporting rate of 54.45% was obtained (including six ad hoc and one incidental sightings).

- **Green Wood-hoopoe**

The first Green Wood-hoopoes were observed at Maselspoort (ca. 30 kilometres from city) along the Modder River during September 1994 (de Swardt 1994). Thereafter they were more frequently observed in wooded suburbs (Dan Pienaar, Oliewenhuis). A SABAP2 reporting rate of 24.29% was recorded.

- **Common Myna**

The first reports for this species in the Bloemfontein area were in early 1998 and confirmed in June 1999 (Nuttall 1999). They were more successful than Common Starlings and have been more abundant since 2000. They were also recorded with the annual Birding Big Day events during the late 1990's (mainly observed in the Glen Agricultural College areas) and in the Ooseinde industrial areas during November months. This species was not recorded in SABAP1 (and was definitely not overlooked) and a high reporting rate of 90.28% during SABAP2 (with 20 additional ad hoc observations), confirms it as one of the most successful invasive bird species in the Bloemfontein area.

- **Common Starling**

This species have been reported in the Bloemfontein area as early as late 1990. Brain Colahan (Colahan 2000) reports the first sighting of this species in the Bloemspruit area (east of city) during October 1990 and this early sighting was only confirmed during November 1998 when starlings were observed in Westdene, Bloemfontein. These birds were observed to become more abundant during the late 1990's, mainly near the Loch Logan Waterfront, school sports fields and the Ooseinde areas (Nuttall 2000b). The success of this species in the central Bloemfontein and industrial areas is confirmed by its high reporting rate of 40.69% (and additional 10 ad hoc lists), although it less abundant than Common Myna.

During SABAP1, a total of about 25 species were recorded in the QDS 2926AA which were not recorded in pentad 2905\_2610 during the SABAP2 project (Table 4). These species were mostly recorded in the surrounding pentads (of QDS 2926AA) or were rare species to the city area. Some of the lark and cisticola species (see Table 4) were recorded at the University Sport fields (Kopij 2001a). Only a few noteworthy observations will be discussed in more detail below:



- **Secretarybird**

First observed on the plateaux of Navil Hill during 1989 (Kopij & de Swardt 1998). The closest observations to the city are known to the valley of Seven dams area and grasslands south of Pellisier suburb (DDS pers obs).

- **Greybacked Cisticola**

Observed and ringed during SABAP1 at Oliewenhuis which is part of Grant's Hill. Also observed at the War Museum before SAPAP2 (DDS persobs)

- **Dusky Sunbird**

Dusky Sunbirds were irregularly recorded during the winter months in the Bloemfontein area. There is also an old breeding record in the Dan Pienaar suburb during September 1985 (Grobler & Pretorius 1986). This species was not recorded during SABAP2 in 2905\_2610, but in the adjacent Free State National Botanical Gardens (2900\_2610) and Leeuberg (2910\_2605) pentads during June - July 2017. A juvenile bird was ringed at a *Leonotis* clump in May 2006 and first sighted at the gardens on 10 June 2017.

During SABAP2 a total of about 25 species showed noteworthy reporting rate increases in 2905\_2610 since SABAP1 (Table 5). These species included mainly water associated species (such as White-breasted and Reed Cormorant, Egyptian Goose, Hadeda Ibis and other) and birds adapted to suburban garden environment (doves, mousebirds, seed-eating birds). Crested Barbets were first recorded in the Free State as early as the 1940's near Senekal and since 1985 in the eastern suburbs of Bloemfontein (Herholdt & Earle 1987). Crested Barbets are now one of the most abundant birds in the Bloemfontein suburban areas (reporting rate from 15.84% in SABAP1 to 94.33% in SABAP2). Also Red-winged Starlings, Red-chested Cuckoos, African Palm Swifts, White-bellied Sunbirds and Red-headed Finches have higher SABAP2 reporting rates (see Table 5).

Fifteen species have lower reporting rates in 2905\_2610 (Table 6); they are known to be more abundant in surrounding pentads where more suitable habitat occurs (pers. obs). Species such as Orange River Francolin, Northern Black Korhaan and Long-tailed Widow were only recorded on the plateaux of Navil Hill, the University sports grounds, grasslands in the Tempe area and the Bloudam area, where they are localized. The only known population of Karoo Scrub-robin in pentad 2905\_2610 is on Navil Hill and possibly in nearby Grants Hill.

The following species have been recorded in the Bloemfontein area but have not been recorded in either SABAP1 or SABAP2 periods; they are discussed below:

- **Natal Francolin**

Vagrant recorded in June 1997 at Navil Hill (Kopij & de Swardt 1998).

- **Greater Honeyguide**

Vagrants recorded at Navil Hill and cemetery areas near the War Museum (Kopij 2001).

- **Grey Hornbill**

Winter influxes along the Modder river and the city (Oliewenhuis) were observed during July - August 1992 (de Swardt *et. al* 1992; Nuttall 1992). A small group were also observed during June 2007 in Fleurdal, Bloemfontein (a month before SABAP2) (DDS persobs).

- **European Golden Oriole**

Vagrant to University Campus in October 1993 (Kopij 2001).

- **Groundscraper Thrush**

Old historical record in the city suburbs before 1985 (Roos *et. al* 1985c).

- **Violeteared Waxbill**

Observed in Navil Hill in February 1997 (Kopij & de Swardt 1998).

This is the first detailed study of the status of the birds recorded in the Bloemfontein area and document how the bird populations have changed and adapted over the past 30 years. Apart from the surveys done by Roos *et. al* (1985a, b, c), several documented reports of the birds in *Mirafra* (see references) and the atlas by Kopij (2001), this paper represents the first updated analysis of the birds of Bloemfontein for pentad 2905\_2610. The adaptations of bird species such as Crested Barbet, Black-collared Barbet, Common Myna, Common Starling and other species in a city environment are illustrated. The isolated habitats for birds in a city environment such as Navil Hill, Grants Hill, Happy Valley and the isolated grassland areas and dams in drainage lines is important to be conserved for the bird communities within a city environment.

This paper commemorates 10 years of SABAP2 project and atlasing in the Bloemfontein area. Thanks to all the citizen scientists for their contributions through the years.

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*Table 1 – 6 to follow, one per page.*



**TABLE 1:** Total monthly bird species totals recorded in quarter degree grid 2926AA during SABAP1 (1987 - 1992) and in pentad 2905\_2610 (one of nine pentads of 2926AA) during SABAP2 (June 2007 - June 2017)

<b>SABAP1</b>													
	<b>J</b>	<b>F</b>	<b>M</b>	<b>A</b>	<b>M</b>	<b>J</b>	<b>J</b>	<b>A</b>	<b>S</b>	<b>O</b>	<b>N</b>	<b>D</b>	<b>Total</b>
<b>Cards</b>	14	15	13	22	18	18	13	21	18	18	18	14	<b>202</b>
<b>Species</b>	135	153	124	137	107	101	103	117	126	125	141	132	<b>221</b>
<b>SABAP2</b>													
	<b>J</b>	<b>F</b>	<b>M</b>	<b>A</b>	<b>M</b>	<b>J</b>	<b>J</b>	<b>A</b>	<b>S</b>	<b>O</b>	<b>N</b>	<b>D</b>	<b>Total</b>
<b>Cards</b>	38	32	37	44	36	39	41	47	42	50	40	49	<b>495</b>
<b>Species</b>	153	132	133	120	110	114	118	118	126	140	138	145	<b>215</b>

**TABLE 2:** The 20 most abundant bird species recorded in the Bloemfontein 2905\_2610 pentad during SABAP2 showing reporting rates (full protocol) and comparison with SABAP1 data. Significant changes in reporting rates between SABAP1 and SABAP2 are in bold.

Bird species	SABAP2 reporting rate		SABAP1 reporting rate
	Rep rate (%)	n	Rep rate (%)
Cape Sparrow	98.59	489	89.11
African Red-eyed Bulbul	98.39	488	85.15
Cape Turtle-dove	98.39	488	86.14
Laughing Dove	98.19	487	94.06
Speckled Pigeon	98.19	487	85.64
Orange River White-eye	97.98	486	74.75
<b>Hadeda Ibis</b>	<b>97.58</b>	<b>484</b>	<b>47.52</b>
Karoo Thrush	97.58	484	84.65
Common Fiscal	97.18	482	90.59
Southern Masked Weaver	97.18	482	66.83
Cape Robin-chat	96.37	478	72.28
Crowned Lapwing	96.17	477	76.24
Blacksmith Lapwing	95.56	474	68.32
<b>Crested Barbet</b>	<b>94.35</b>	<b>468</b>	<b>15.84</b>
White-backed Mousebird	92.54	459	54.46
Red-faced Mousebird	90.73	450	50.99

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<b>Common Myna</b>	<b>90.32</b>	<b>448</b>	<b>Not recorded</b>
House Sparrow	89.92	446	68.81
Cape Wagtail	89.72	445	71.28
Little Swift	89.31	443	62.87

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**TABLE 3:** Bird species not recorded during SABAP1 period but recorded during SABAP2 with details of SABAP2 reporting rates (June 2007 - June 2017) and possible first dates and localities recorded after SABAP1 (see text). \* Birds in bold have significant reporting rate increases in SABAP2 (with possible first dates recorded in BFN area)

Bird species	SABAP2 reporting rate (Full protocol) *	Approx. first recorded / Locality
Great Crested Grebe	0.22%	Bloudam
Lesser Flamingo	7.26%	Bloudam
Hottentot Teal	8.87%	Bloudam
Fulvous Duck	0.22%	Bloudam
Mallard Duck	0.22%	Unknown locality
Common Peacock	6.65%	DOW nursery area (breeding)
Peregrine Falcon	2.82%	Recorded sporadically
<b>Amur Falcon</b>	<b>12.10%</b>	<b>First recorded at roost - February 1997</b>
Red-footed Falcon	1.01%	Recorded during roost counts (low numbers)
Yellow-billed Kite	0.22%	Flew over pentad
European Honey-buzzard	0.22%	Dan Pienaar area (VM record)
Martail Eagle	0.45%	Flew over pentad
African Fish-eagle	0.22%	Unknown locality (sporadically in 2900_2610)
Black Sparrowhawk	1.42%	Navil Hill
African Marsh-harrier	0.22%	Bloudam
<b>African Harrier-hawk</b>	<b>1.62%</b>	<b>City, Navil Hill - more regular after 2002</b>



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Kurrichane Buttonquail	0.22%	Grasslands at University?
African Rail	1.21%	Bloudam
Black Crake	1.42%	Bloudam
African Purple Swamphen	8.87%	Bloudam
Kittlitz's Plover	1.85%	Ad hoc sighting (unknown locality)
Whiskered Tern	0.22%	Bloudam
Great Spotted Cuckoo	0.22%	Suburban areas
Freckled Nightjar	0.22%	Possibly at Oliewenhuis; also in 2900_2610
Common Swift	0.61%	Possible overlooked in SABAP1,irregular
<b>Green Woodhoopoe</b>	<b>24.19%</b>	<b>First recorded after 1994, suburban areas</b>
<b>Black-collared Barbet</b>	<b>54.23%</b>	<b>More common after 1992</b>
Brown-backed Honeybird	0.22%	Oliewenhuis area
Bar-throated Apalis	0.20%	Oliewenhuis area
<b>Common Starling</b>	<b>40.93%</b>	<b>First record 1990, more abundant after 1998</b>
<b>Common Myna</b>	<b>90.32%</b>	<b>First record 1998, more abundant after 2000</b>
Blackfaced Waxbill	0.40%	Navil Hill
Lark-like Bunting	0.22%	Navil Hill
Rose-ringed Parakeet	1.85%	Ad hoc sighting (city area)

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**TABLE 4:** Bird species recorded in QDS 2926AA during SABAP1, but not in pentad 2905\_2610 during SABAP2 (only as vagrants or recorded in surrounding pentads during SABAP2) (see text).

Bird species	SABAP1 reporting rate	SABAP1 record / Locality
Black-necked Grebe	3.47%	Surrounded pentads
Secretarybird	2.97%	Surrounded pentads, Navil Hill in 1989 (Kopij 1998)
Double-banded Courser	1.98%	Surrounded pentads
White-winged Tern	4.95%	Surrounded pentads
Marsh Owl	1.98%	Surrounded pentads
Fiery-necked Nightjar	0.505	Surrounded pentads
European Roller	0.50%	Surrounded pentads
Lilacbreasted Roller	0.50%	Old specimen record (7 February 1991)
Melodious Lark	0.505	Surrounded pentads; University sports grounds?
Spike-heeled Lark	10.405	Surrounded pentads
GreybackedSparrowlark	0.505	Surrounded pentads
Red-capped Lark	4.95%	Surrounded pentads; along Ferreira road?
Pink-billed Lark	0.50%	Surrounded pentads; University sports grounds?
Eastern Clapper Lark	8.91%	Surrounded pentads; University sports grounds?
Pearl-breasted Swallow	0.99%	Surrounded pentads
Sickle-winged Chat	0.99%	Surrounded pentads

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Yellow-bellied Eremomela	0.99%	Surrounded pentads
Rufous-eared Warbler	0.995	Surrounded pentads
Cloud Cisticola	1.98%	Surrounded pentads; University sports grounds?
GreybackedCisticola	4.95%	War Museum pre 2007, Oliewenhuis?
Longbilled Pipit	0.995	Surrounded pentads
Plainbacked Pipit	2.97%	Surrounded pentads
Dusky Sunbird	4.46%	Surrounded pentads, gardens in city - breeding in 1985
Black-headed Canary	0.50%	Surrounded pentads
Goldenbreasted Bunting	0.99%	Surrounded pentads; Ringed FS Bot Gardens - pre 2004

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**TABLE 5:** Bird species showing reporting rate **increases** during SABAP2 since the SABAP1 period (see text). Species in bold showed significant increases in abundances in the Bloemfontein area.

Bird species	SABAP1 reporting rate	SABAP2 reporting rate	Reason for increases
<b>White-breasted Cormorant</b>	<b>10.40%</b>	<b>75.60%</b>	<b>Resident Loch Logan &amp; Bloudam</b>
Reed Cormorant	35.64%	76.61%	Resident Loch Logan & Bloudam
Little Egret	10.40%	26.01%	Resident Loch Logan & Bloudam
Cattle Egret	50.00%	72.38%	Resident Bloudam (heronry)
<b>Hadedda Ibis</b>	<b>47.52%</b>	<b>97.58%</b>	<b>Increased abundances in city and suburban areas</b>
<b>Egyptian Goose</b>	<b>21.78%</b>	<b>79.23%</b>	<b>Increased abundances at Loch Logan &amp; Bloudam</b>
Helmeted Guineafowl	27.72%	57.26%	Abundant at War Museum, Happy Valley area
Red-knobbed Coot	43.56%	83.27%	Resident Loch Logan & Bloudam
Crowned Lapwing	76.24%	96.17%	Increased abundances in city and suburban areas
Blacksmith Lapwing	68.32%	95.56%	Increased abundances in city and suburban areas
Pied Avocet	0.50%	7.29%	Bloudam; site not visited in SABAP1?
Red-eyed Dove	25.25%	88.71%	Increased abundances in city and suburban areas
Rock Dove	33.66%	86.64%	Increased abundances in city areas
Red-chested Cuckoo	3.96%	7.49%	Increased abundances after mid 1990's
Alpine Swift	5.45%	58.27%	Breeding in high building in city since early 1990's
African Palm Swift	6.44%	44.35%	Increased abundances in city and suburban areas
Speckled Mousebird	3.96%	41.13%	Increased abundances in city and suburban areas



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African Hoopoe	56.93%	82.06%	Increased abundances in city and suburban areas
<b>Crested Barbet</b>	<b>15.84%</b>	<b>94.35%</b>	<b>Increased abundances after mid 1990's</b>
Rock Martin	23.76%	89.11%	Increased abundances in city and suburban areas
<b>Redwinged Starling</b>	<b>2.97%</b>	<b>53.02%</b>	<b>Increased abundances in city and suburban areas</b>
<b>White-bellied Sunbird</b>	<b>7.43%</b>	<b>54.84%</b>	<b>Increased abundances in city and suburban areas</b>
<b>Cape Weaver</b>	<b>6.44%</b>	<b>36.29%</b>	<b>Increased abundances in city; isolated weaver colonies</b>
<b>Red-headed Finch</b>	<b>9.90%</b>	<b>88.91%</b>	<b>Increased abundances in city and suburban areas</b>
Black-throated Canary	19.31%	68.55%	Increased abundances in city and suburban areas

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**TABLE 6:** Bird species showing reporting rate **decreases** during SABAP2 since the SABAP1 period (see text). Species in bold show species with localized populations in the 2905\_2600 Bloemfontein pentad.

Bird species	SABAP1 reporting rate	SABAP2 reporting rate	Status and localities
Little Grebe 37.13%	5.26%		Common in surrounded pentads; Bloudam
<b>Orange River Francolin</b>	<b>24.755</b>	<b>4.86%</b>	<b>Common in surrounded pentads; University &amp; Navil Hill</b>
<b>Northern Black Korhaan</b>	<b>24.26%</b>	<b>2.23%</b>	<b>Common in surrounded pentads; University &amp; Tempe</b>
Namaqua Dove	15.355	3.44%	Common in surrounded pentads; sporadically in pentad
<b>Rufousnaped Lark</b>	<b>3.965</b>	<b>1.82%</b>	<b>Common in surrounded pentads; University</b>
Ashy Tit 3.47%	0.22%		Common in surrounded pentads; rarely in Navil Hill
Mountain Wheather	22.28%	0.81%	Common in surrounded pentads; areas with buildings
Anteating Chat	18.32%	0.22%	Common in surrounded pentads; Navil Hill in 1989
<b>Karoo Scrub-robin</b>	<b>24.75%</b>	<b>10.32%</b>	<b>Common in surrounded pentads; Navil Hill &amp; Grants Hill</b>
African Pipit	24.75%	4.45%	Common in surrounded pentads; open grassveld patches
Cape Longclaw	20.30%	1.625	Common in surrounded pentads; Bloudam & University
Cape Glossy Starling	24.26%	8.91%	Common in surrounded pentads; sporadically in city
Malachite Sunbird	21.29%	9.725	Winter visitor, less common than in surrounded pentads
<b>Longtailed Widowbird</b>	<b>14.85%</b>	<b>3.64%</b>	<b>Common in surrounded pentads; localized near Bloudam</b>
Cape Canary	4.95%	0.61%	Common in surrounded pentads, near Navil Hill in SABAP1