

Ornithological Observations



An electronic journal published by BirdLife South Africa and the Animal Demography Unit at the University of Cape Town



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Editor: Arnold van der Westhuizen

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Recommended citation format:

De Swardt DH 2012. 2925BD Hagesdam – SABAP1 and SABAP2 compared. Ornithological Observations, Vol 3: 109-122

URL: <http://oo.adu.org.za/content.php?id=51>

Published online: 14 September 2012

- ISSN 2219-0341 -



2925BD HAGESDAM – SABAP1 AND SABAP2 COMPARED

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Duncan McKenzie (McKenzie 2011) recently published a paper in which he compares reporting rates of SABAP1 and 2 data in the area of Nelspruit, Mpumalanga. This prompted me to do the same analysis on the reporting rates of birds in the 2925BD Hagesdam quarter degree grid cell (QDGC). Much of my field work since August 1988 was concentrated in this part of the Free State Province.

During SABAP1 (1987-1991) research was done on several swallow species (South African Cliff, Greater Striped, Red-breasted and White-throated Swallows) with Dr Roy Earlé along the Jagersfontein road approximately 30 kilometres outside Bloemfontein. This formed part of a study on aerial insect eating birds (Earlé 1986). Insect surveys on a 10 km stretch of road along the Jagersfontein road (to determine food availability for swallows) were done three times a month during a two year survey period (Earlé 1989). This survey area falls exactly in the 2915_2555 pentad (a square of 5 min longitude x 5 min latitude) in the 2925BD Hagesdam QDGC. This area was visited every month during SABAP1. A study on the Northern Black Korhaan *Afrotis afraoides* in the same pentad coincided with SABAP1 (De Swardt 1992).

After the completion of SABAP1 a research project on the African Rock Pipit *Anthus crenatus* was undertaken on the farm Hagesdam (2920_2545). This project ran from 1995-2001 (De Swardt 2006) and detailed bird lists of the study area were compiled during the

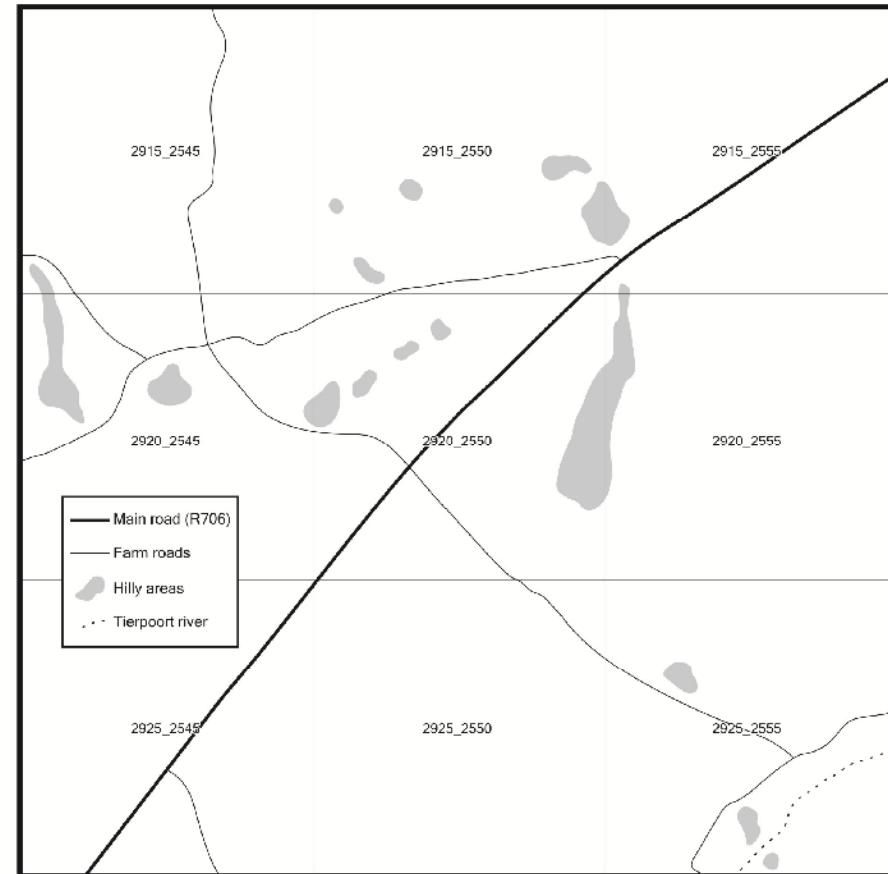
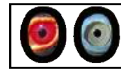


Fig 1 – Map indicating the different pentads in 2925BD Hagesdam

study period. During SABAP2¹ regular visits were made to pentad 2915_2555 to monitor the nests of Secretarybirds *Sagittarius serpentarius* and to ring South African Cliff Swallows *Petrochelidon spilodera* at the breeding colony at the Klein Kaalspruit bridge. The

¹ **Editor's note:** SABAP2 is still work in progress therefore this paper can be treated as an interim report as surveys still continue to be done and observation data are added to the database frequently.



vegetation in 2925BD Hagesdam is mainly grassland with open eroded areas and hills dominated by *Olea* and *Buddleja* spp. (De Swardt 2002a; 2006). The grassland habitat is punctuated with isolated hills with its associated vegetation. The hills include Uitenhageskop (1576.1 masl) (2920_2545), Leeukop (1521.5 masl) (2925_2555), the hill at Williamstrip (1506.4 masl) (2915_2550 and 2915_2555) and the series of hills at Leeuwrant (2920_2550 and 2920_2555). The Klein Kaalspruit Stream cuts through pentad 2915_2555 and several small pans are present, especially after high rainfall seasons (as observed during SABAP2) which attract several water-associated species. The Riet River with its reedbeds in 2925_2555 is situated in the south-eastern corner of the Hagesdam QDGC.

This paper compares the data of the the two atlas projects. A second objective is to show how bird numbers (especially waterfowl) varied between different rainfall seasons; and thirdly it wants to underline the value of continued bird lists (the study on African Rock Pipit was between the two atlas projects) for certain areas.

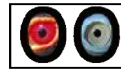
Results and discussion

During SABAP1 between 1987 and early 1992 a total of 176 species were recorded from 58 field cards in 2925BD Hagesdam. Field cards were submitted at the end of each month with all observations during the month recorded on the card. The area covered in the survey was the whole quarter degree grid cell.

The survey protocol used in SABAP2 differs somewhat from that of SABAP1. Each QDGC is divided into 9 pentads – the scale is therefore much finer. Field cards is submitted after every 5 day observation period and *ad hoc* or incidental sightings can be added to the list of species with the data management software available to atlasers. During SABAP2, a total of 187 species from 86 full protocol cards and 19 *ad hoc* lists were received (data analysed up to 16 July 2011) for the 9 pentads in 2925BD Hagesdam.

A total of 26 species, recorded during SABAP1, have not yet been recorded during SABAP2 (Table 1). Most of these species have a reporting rate (number of times the species is reported on the total number of field cards) of 6% and less. Seven of these species were observed in the period between the two atlas projects (1995-2005) in the Hagesdam area and along the Jagersfontein road (species marked with an asterisk). The observations of the Karoo Korhaan *Eupodotis vigorsii* during SABAP1 (May and June) are probably misidentifications as they were more regularly reported further south in the Philippolis area. Most of these species are probably overlooked or under-reported. Interesting was the observation of a small group of Black-headed Canaries *Crithagra alario* which were attracted to a puddle of water at the base of the hill at Hagesdam and were observed during January–February 2002 and 8 were later captured and ringed (De Swardt 2002b)

Table 2 lists 37 species which were recorded during SABAP2 and not during SABAP1. An additional 11 species also included in Table 2 were recorded for the first time during SABAP2. The "Out of Range Record" status have not yet been verified at the time of writing of this paper. Some of the species listed in Table 2 have low reporting rates suggesting them as vagrants to the area while at least 12 species have higher reporting rates (>5%). Most of the species showing a higher reporting rate occur in association with the *Olea* trees along the hills, the open eroded grassland areas and around farm houses, habitats which were probably not visited during SABAP1 (DDS pers. obs). Most of the surveys by observers (of which DDS was one) in 2925BD Hagesdam during SABAP1 were concentrated along the main road and farm roads. This suggestion that some areas may have been overlooked in surveys during SABAP1 is strengthened as 16 of the species in Table 2 were not recorded during SABAP1 but observed during the study period on African Rock Pipits at Hagesdam and surroundings between 1995-2001. Most of these species were also found breeding at the Hagesdam study site, suggesting that most of them are resident (De Swardt 2002a). At Hagesdam and in the surrounding area a total of 161 species were



recorded of which 28 species were vagrants to the area or rarely observed (DDS unpubl. list, 2003).

Table 3 lists 10 species which were recorded in the Hagedam area - these were not recorded during either SABAP1 or SABAP2 at the time of writing. The Grey Tit *Parus afer* was observed on several occasions in the *Olea* dominated hills in the Hagedam area and – they also have been recorded at Kloofeind (2905_2600) 20 km west of Bloemfontein - the northernmost observation of this species (DDS per obs). The Malachite Sunbird *Nectarinia famosa* also has been observed on several occasions in the hills and surrounding areas, mainly during summer. The records of the birds listed in Table 3 underline the importance of the continuation of recording bird distribution in selected localities when a project like SABAP2 ends.

A comparison of the reporting rates of birds recorded during the SABAP1 and SABAP2 projects (Appendix 1) reveals the following: A total of 150 species have been recorded during both atlas projects. Higher reporting rates for some species (mainly birds associated with the hilly areas dominated by *Olea* trees) were recorded during SABAP2 than SABAP1, and could only attributed that suitable habitats were not visited during the first project. Some species which show increases in reporting rate since SABAP1 include Neddicky *Cisticola fulvicapilla*, Southern Red Bishop *Euplectes orix*, Swainson's Spurfowl *Pternistes swainsonii*, Black-throated Canary *Crithagra alario*, Pied Crow *Corvus albus* and White-browed Sparrow-weavers *Plocepasser mahali*. Two species, the Crested Barbet *Trachyphonus vaillantii* (Table 2; 23.25 %) and White-bellied Sunbird *Cinnyris talatala* (Table 2; 9.3 %), were not recorded during SABAP1 and represent possible range expansions. Further increase in reporting rates of the following species have also been noted: Hadedda Ibis *Bostrychia hagedash*, Helmeted Guineafowl *Numida melaegris*, Pied Crow and Stonechat *Saxicola torquatus* (see Appendix 1 and Table 4).



Fig 2 - The temporary pan along the Jagersfontein road in pentad 2915_2555 filled with water after the rainfall of January 2011. In previous years this pan held water well into the dry winter season.

The increase of Pied Crows in the area can probably be attributed to the occurrence of road kills along the Jagersfontein road which cuts through the QOGC and through 3 of the pentads). Increases in seed-eating weavers and doves in the area may be the result of food abundance in cultivated fields (mainly sunflower and wheat) which attract these birds when it is close to harvesting time. Positive increases is also noted for waterbird species such as Egyptian Goose *Alopochen aegyptiaca*, South African Shelduck *Tadorna cana*, Cape Shoveler *Anas smithii*, Red-billed Teal *Anas erythrorhyncha*, White-faced Duck *Dendrocygna viduata*, Red-knobbed Coot *Fulica cristata* and Malachite Kingfisher *Alcedo cristata* (Appendix 1).

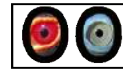


Fig 3 - The South African Cliff Swallow colonies (under the old bridge in picture) at the Klein Kaalspruit at Schoongezicht along the Jagersfontein road in pentad 2915_2555.

The Free State experienced exceptionally high rainfall periods between 2009 and 2011. From January–June 2011 817.2 mm of rainfall was recorded in the Bloemfontein area. Figure 2 and 3 show a pan along the Jagersfontein road and the Klein Kaalspruit stream in pentad 2915_2555 in January 2011.

Of concern is the lower reporting rates (negative correlations) observed in 9 species during SABAP2 surveys (Appendix 1). These lower reporting rates were mainly observed in grassland species such as the Blue Crane *Anthropoides paradiseus*, Blue Korhaan *Epodotis caerulescens* and Pied Starling *Lamprotornis bicolor* as well as raptors which include the Greater Kestrel *Falco rupicoloides*, Steppe Buzzard *Buteo buteo* and Black Harrier *Circus maurus*. Black

Harriers were recorded sporadically in the QDGC and adjacent areas and could also be under-represented in datasheets. Another raptor species for concern is the Jackal Buzzard *Buteo rufofuscus* which was observed only a few times in SABAP2 surveys. This number includes juvenile birds – a negative reporting rate of -25.74% is recorded. They were frequently recorded in the Hagesdam area between 1995–2002, and are also probably under-reported (DDS unpubl data).

Secretarybirds show a lower reporting rate during SABAP2 than in SABAP1 (decrease of 12.83%) which are of high concern as the Red Data listing of this species had been adapted from Near Threatened to Vulnerable. However, 15 *ad hoc* sightings were excluded from this analysis. These birds have been observed breeding in the area since 1989. At least 5 breeding attempts were recorded in the 2925BD QDGC since SABAP1 (De Swardt 2007; De Swardt and Van der Westhuizen 2010). Coordinated Avifaunal Roadcount (CAR) data estimates Secretarybird populations in the south western Free State at densities of 1.4 birds/100 km in summer and 1.2 birds/100 km in winter (Young *et al* 2003).

Spotted Thick-knee *Burhinus capensis* is another species showing a lower reporting rate. These birds however are nocturnal and in surveys during the day these birds may be missed as they are not easily located when they shelter under bushes. They were found breeding at Hagesdam (De Swardt 2002a) and therefore should be considered as resident in the area.

There were only 12 observations recorded (13.95% reporting rate) of White-throated Swallows *Hirundo albigularis* during SABAP2 (25 in SABAP1). The higher reporting rate during SABAP1 can be attributed to the location of a known nest site in a culvert at Leeuwrant (2920_2550) along the Jagersfontein road which was monitored during 1988-1990 (Earlé 1989).



Conclusion

The results in this comparison of reporting rates of bird species between SABAP1 and SABAP2 not only show how our bird populations can adapt or change (lower to higher reporting rates) during environmental conditions. It also stress the need to continue with surveys for certain areas to detect changes in reporting rates as soon as possible. 2925BD Hagesdam is farmland and it is important to monitor the bird populations on a regular basis, even after the completion of SABAP2. The current ADU long term projects such as CAR, CWAC and SAFRING should be supported after SABAP2 has been completed to keep on monitoring the reporting rates – especially of species already showing a decrease in reporting rate. Only through continued monitoring by scientists and citizen scientists can trends in populations and changes in distribution be detected.

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Acknowledgements

Thanks to Les Underhill for supplying the data of the 2925BD QDS and to did the analyse the reporting rates between the two atlas projects. Also thanks to all the citizen scientists who submitted data for both of the SABAP projects.

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**Table 1: Species recorded during SABAP1 only**

(* Species recorded during African Rock Pipit study at Hagesdam (1995-2001), DDS unpublished bird list

Species	Sightings (n = 58)	% Reporting rate
Black-necked Grebe	1	1.72
Abdim's Stork	1	1.72
Southern Pochard	3	5.17
Tawny Eagle *	1	1.72
Booted Eagle *	1	1.72
Black Kite	1	1.72
Grey Crowned Crane *	1	1.72
Karoo Korhaan	2	3.44
Kittlitz's Plover	2	3.44
Little Stint	1	1.72
Marsh Sandpiper	1	1.72
Burchell's Courser	3	5.17
Temminck's Courser	1	1.72
Black-winged Pratincole	2	3.44
Rufous-cheeked Nightjar *	1	1.72
Jacobin Cuckoo	1	1.72
Alpine Swift *	1	1.72
Pied Kingfisher	1	1.72
White-fronted Bee-eater	1	1.72
European Roller	2	3.44
Sabota Lark *	3	5.17
Common House Martin	1	1.72
Karoo Chat	1	1.72
Great Reed Warbler	4	6.89
Orange-breasted Waxbill	1	1.72
Black-headed Canary *	1	1.72

**Table 2: Species recorded during SABAP2 only**

* Species recorded during African Rock Pipit study at Hagesdam (1995 - 2001), DDS unpublished bird list		
Species	Sightings (n = 86)	% Reporting rate
African Darter	2	2.32
Whitebreasted Cormorant	1	1.16
Purple Heron	1	1.16
Lesser Flamingo	1	1.16
Cape Teal	1	1.16
Verreaux's Eagle *	1	1.16
African Fish eagle	1	1.16
Black-chested Snake-Eagle	1	1.16
African Harrier-Hawk	2	2.32
Kurrichane Buttonquail *	1	1.16
Ludwig's Bustard *	4	4.65
Kori Bustard	1	1.16
Greater Painted-snipe	1	1.16
African Palm-Swift	1	1.16
Malachite Kingfisher	5	5.81
Green Wood-Hoopoe	2	2.32
Common Scimitarbill *	3	3.48
Crested Barbet *	20	23.25
Cardinal Woodpecker	1	1.16
Rock Martin	3	3.48
Ashy Tit *	9	10.46
Cape Penduline-Tit *	11	12.79
Short-toed Rock-Thrush *	9	10.46
Kalahari Scrub-Robin	17	19.76
Willow Warbler	3	3.48
African Reed-Warbler	3	3.48
Long-billed Crombec *	8	9.30
Namaqua Warbler	1	1.16



Layard's Tit-Babbler *	42	48.83
Chat Flycatcher *	1	1.16
Long-billed Pipit *	30	34.88
Buffy Pipit *	15	17.44
African Rock Pipit *	19	22.09
Brown-crowned Tchagra *	3	3.48
White-bellied Sunbird *	8	9.30
Red-billed Firefinch	1	1.16
Common Waxbill	3	3.48
Out of range records²		
Natal Francolin	1	
Black Stork	1	
Red-throated Wryneck	1	
European Nightjar	1	
Swallow-tailed Bee-eater	1	
Olive-tree Warbler	3	
Kimberley Pipit	1	
African Marsh Harrier	1	
Brown Snake-Eagle	1	
Gabar Goshawk	1	
Maccoa Duck	1	

² Out of Range Records are those in which the observer should motivate the observation to a regional committee which adjudicates on the validity of the observation.

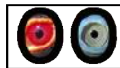
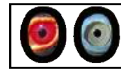


Table 3: Species recorded at Hagesdam and surroundings: 1995-2002 (not during any of the atlasing projects)

Martial Eagle
Montagu's Harrier
Grey-winged Francolin
Greater Honeyguide
Grey Tit
Garden Warbler
Marsh Warbler
Spotted Flycatcher
Long-tailed Pipit
Malachite Sunbird

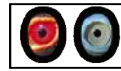

Appendix 1: Comparison of reporting rates – SABAP1 vs. SABAP2

* Increase (+) or decrease (-) in reporting rates – decreases are indicated in bold print

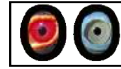
Species	SABAP1		SABAP2		Change in reporting rate*
	sightings (n = 58)	%	sightings (n = 86)	%	
Common Ostrich	34	58.62	59	68.60	9.98
Little Grebe	9	15.51	21	24.41	8.90
Reed Cormorant	23	39.65	13	15.11	-24.53
Grey Heron	11	18.96	20	23.25	4.29
Black-headed Heron	32	55.17	41	47.67	-7.49
Great Egret	7	12.06	2	2.32	-9.74
Little Egret	7	12.06	10	11.62	-0.44
Yellow-billed Egret	2	3.44	1	1.16	-2.28
Cattle Egret	32	55.17	48	55.81	0.64
Hamerkop	13	22.41	4	4.65	-17.76
White Stork	6	10.34	1	1.16	-9.18
African Sacred Ibis	10	17.24	10	11.62	-5.61
Glossy Ibis	1	1.72	5	5.81	4.08
Hadedda Ibis	26	44.82	59	68.60	23.77
African Spoonbill	13	22.41	8	9.30	-13.11
Spur-winged Goose	30	51.72	39	45.34	-6.37
Egyptian Goose	23	39.65	54	62.79	23.13
South African Shelduck	9	15.51	25	29.06	13.55
Cape Shoveler	3	5.17	8	9.30	4.12
African Black Duck	1	1.72	3	3.48	1.76
Yellow-billed Duck	37	63.79	49	56.97	-6.81
Red-billed Teal	16	27.58	36	41.86	14.27
White-faced Duck	3	5.17	27	31.39	26.22
Secretarybird	27	46.55	29	33.72	-12.83
Lanner Falcon	2	3.44	7	8.13	4.69
Greater Kestrel	21	36.20	2	2.32	-33.88



Rock Kestrel	7	12.07	8	9.30	-2.76
Lesser Kestrel	17	29.31	19	22.09	-7.21
Black-shouldered Kite	41	70.68	67	77.90	7.21
Yellow-billed Kite	2	3.44	1	1.16	-2.28
Jackal Buzzard	21	36.20	9	10.46	-25.74
Steppe Buzzard	25	43.10	15	17.44	-25.66
Southern Pale Chanting Goshawk	1	1.72	19	22.09	20.36
Pallid Harrier	1	1.72	1	1.16	-0.56
Black Harrier	12	20.68	6	6.97	-13.71
Orange River Francolin	24	41.37	32	37.20	-4.17
Swainson's Spurfowl	7	12.06	49	56.97	44.90
Common Quail	7	12.06	2	2.32	-9.74
Helmeted Guineafowl	31	53.44	71	82.55	29.10
Common Moorhen	4	6.89	3	3.48	-3.40
Red-knobbed Coot	14	24.13	33	38.37	14.23
Blue Crane	7	12.06	3	3.48	-8.58
Blue Korhaan	38	65.51	45	52.32	-13.19
Northern Black Korhaan	53	91.37	81	94.18	2.80
Three-banded Plover	22	37.93	18	20.93	-17.00
Crowned Lapwing	48	82.75	68	79.06	-3.68
Blacksmith Lapwing	46	79.31	59	68.60	-10.70
African Snipe	1	1.72	2	2.32	0.60
Ruff	3	5.17	4	4.65	-0.52
Common Sandpiper	4	6.89	1	1.16	-5.73
Common Greenshank	1	1.72	2	2.32	0.60
Wood Sandpiper	8	13.79	5	5.81	-7.97
Pied Avocet	1	1.72	1	1.16	-0.56
Black-winged Stilt	12	20.68	13	15.11	-5.57
Spotted Thick-knee	17	29.31	5	5.81	-23.49
Double-banded Courser	14	24.13	9	10.46	-13.67
White-winged Tern	3	5.17	5	5.81	0.64
Rock Dove	5	8.62	4	4.65	-3.96



Speckled Pigeon	23	39.65	63	73.25	33.60
Red-eyed Dove	8	13.79	34	39.53	25.74
Cape Turtle-Dove	46	79.31	81	94.18	14.87
Laughing Dove	53	91.37	83	96.51	5.13
Namaqua Dove	38	65.51	50	58.13	-7.37
Diderick Cuckoo	12	20.68	8	9.30	-11.38
Barn Owl	1	1.72	2	2.32	0.60
Marsh Owl	4	6.89	5	5.81	-1.08
Spotted Eagle-Owl	8	13.79	9	10.46	-3.32
Common Swift	2	3.44	1	1.16	-2.28
African Black Swift	3	5.17	2	2.32	-2.84
White-rumped Swift	23	39.65	37	43.02	3.36
Little Swift	15	25.86	48	55.81	29.95
Speckled Mousebird	1	1.72	1	1.16	-0.56
White-backed Mousebird	11	18.96	37	43.02	24.05
Red-faced Mousebird	12	20.68	33	38.37	17.68
European Bee-eater	16	27.58	16	18.60	-8.98
African Hoopoe	4	6.89	3	3.48	-3.40
Acacia Pied Barbet	27	46.55	53	61.62	15.07
Lesser Honeyguide	1	1.72	1	1.16	-0.56
Melodious Lark	12	20.60	11	12.79	-7.89
Rufous-naped Lark	4	6.89	25	29.06	22.17
Fawn-coloured Lark	6	10.34	6	6.97	-3.36
Large-billed Lark	19	32.75	25	29.06	-3.68
Spike-heeled Lark	54	93.10	58	67.44	-25.66
Eastern Clapper Lark	38	65.51	61	70.93	5.41
Eastern Long-billed Lark	7	12.06	4	4.65	-7.41
Chestnut-backed Sparrowlark	2	3.44	2	2.32	-1.12
Grey-backed Sparrowlark	5	8.62	7	8.13	-0.48
Red-capped Lark	22	37.93	36	41.86	3.92
Pink-billed Lark	1	1.72	26	30.23	28.50
Barn Swallow	18	31.03	29	33.72	2.68



White-throated Swallow	25	43.10	12	13.95	-29.14
Red-breasted Swallow	26	44.82	34	39.53	-5.29
Greater Striped Swallow	26	44.82	41	47.67	2.84
South African Cliff-Swallow	40	68.96	45	52.32	-16.63
Brown-throated Martin	1	1.72	3	3.48	1.76
Pied Crow	4	6.89	37	43.00	36.12
African Red-eyed Bulbul	26	44.80	63	73.25	28.42
Karoo Thrush	4	6.89	18	20.93	14.03
Mountain Wheatear	18	31.03	23	26.74	-4.29
Capped Wheatear	9	15.51	2	2.32	-13.19
Familiar Chat	15	25.86	27	31.39	5.53
Sickle-winged Chat	26	44.82	24	27.90	-16.92
Anteating Chat	55	94.82	84	97.67	2.84
African Stonechat	24	41.37	51	59.30	17.92
Cape Robin-Chat	7	12.06	30	34.88	22.81
Karoo Scrub-Robin	10	17.24	31	36.04	18.80
Yellow-bellied Eremomela	5	8.62	14	16.27	7.65
Rufous-eared Warbler	17	29.30	38	44.10	14.87
Zitting Cisticola	15	25.86	33	38.37	12.51
Desert Cisticola	29	50.00	51	59.30	9.30
Cloud Cisticola	10	17.24	36	41.86	24.61
Neddicky	5	8.62	55	63.95	55.33
Grey-backed Cisticola	2	3.44	35	40.69	37.24
Levaillant's Cisticola	3	5.17	19	22.09	16.92
Black-chested Prinia	43	74.13	73	84.88	10.74
Chestnut-vented Tit-Babbler	5	8.62	38	44.10	35.56
Fiscal Flycatcher	10	17.24	38	44.18	26.94
Pirit Batis	1	1.72	13	15.11	13.39
Fairy Flycatcher	2	3.44	25	29.06	25.62
Cape Wagtail	31	53.44	42	48.83	-4.61
African Pipit	52	89.65	83	96.51	6.85
Plain-backed Pipit	1	1.72	13	15.11	13.39



Cape Longclaw	27	46.55	52	60.46	13.91
Common Fiscal	55	94.82	79	91.86	-2.96
Red-backed Shrike	4	6.89	13	15.11	8.21
Bokmakierie	25	43.10	63	73.25	30.15
Wattled Starling	9	15.51	22	25.58	10.06
Cape Glossy Starling	24	41.37	38	44.18	2.80
Pied Starling	41	70.68	24	27.90	-42.78
Orange River White-eye	11	18.96	30	34.88	15.91
White-browed Sparrow-Weaver	25	58.00	69	80.23	37.12
House Sparrow	35	60.34	66	76.74	16.39
Cape Sparrow	54	93.10	83	96.51	3.40
Southern Grey-headed Sparrow	12	20.68	28	32.55	11.86
Southern Masked-Weaver	44	75.86	78	90.69	14.83
Red-billed Quelea	9	15.50	45	52.32	36.80
Southern Red Bishop	23	39.65	75	87.20	47.55
Yellow-crowned Bishop	13	22.41	21	24.41	2.00
Long-tailed Widowbird	38	65.51	49	56.97	-8.54
Scaly-feathered Finch	5	8.62	2	2.32	-6.29
Red-headed Finch	11	18.96	18	20.93	1.96
African Quailfinch	31	53.44	59	68.60	15.15
Pin-tailed Whydah	1	1.72	2	2.32	0.60
Cape Canary	4	6.89	5	5.80	-1.08
Black-throated Canary	14	24.13	54	62.79	38.65
Yellow Canary	42	72.41	52	60.46	-11.94
White-throated Canary	3	5.17	1	1.16	-4.00
Lark-like Bunting	1	1.72	3	3.48	1.76
Cinnamon-breasted Bunting	2	3.44	40	46.51	43.06
Cape Bunting	2	3.44	23	26.74	23.29