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BIRD DISTRIBUTION CHANGES IN THE LYDENBURG AREA, MPUMALANGA (2530AB LYDENBURG AND 2530BA LONG TOM PASS) USING SABAP DATA TO COMPARE WITH HISTORICAL DATA: A PERIOD SINCE THE 1980s

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Introduction

Prior to the start of SABAP1 in 1987, the only available bird distribution data were from annotated checklists such as the South African Avifaunal series (1961-1972; published by the Percy Fitzpatrick Institute of African Ornithology, University of Cape Town), the Southern Birds series (1975-1995) and other annotated checklists in scientific journals or bird club newsletters (e.g. Mirafa).

During the Bird and Man Symposium held in Johannesburg in April 1983 the desirability and feasibility for a Bird Population Data Bank with the aim to undertake long term studies on SAs bird populations was discussed (Bunning 1985). Prys-Jones (1984) reviewed the proceedings in an article in *Bokmakierie* (past magazine of the South African Ornithological Society, now BirdLife South Africa) and discussed topics such as bird ringing, nest record card data collecting, atlases, and censuses including studies such as White Stork Censuses. During that time the only regional bird atlas in South Africa published was that of Natal by Cyrus and Robson (1980); with other atlases in preparation – Transvaal (Tarboton *et al.*1987) and the Free State (Earle and Grobler 1988). The atlas of birds of the southwestern Cape were to follow later. In the discussion by Prys-Jones (1984) the involvement of amateur birdwatchers (citizen scientists) was emphasized. In 1987 the first South African Bird Atlas Project (SABAP1) was launched with large contributions from both professional and amateur ornithologists during the fieldwork period.

During the early 1980s I developed an interest in Ornithology and started bird surveys around the suburban areas of Lydenburg, the Gustav Klingbiel Nature Reserve (hereafter GKNR) outside the town, the lower Long Tom Pass area and the valley along the Sterkspruit river towards the De Kuilen Fish hatchery / Sterkspruit Nature Reserve areas. These surveys spanned over a period of ca 8 years and resulted in a publication in the Southern Birds series (de Swardt 1990). In the same year that SABAP1 was launched, I initiated a project on Gurney's Sugarbirds *Promerops gurneyi* in the Lydenburg area (my Southern Birds study area) (de Swardt 1991). During the sugarbird project at Lydenburg (of which I still visit certain study sites), data on bird distribution were collected for SABAP1, the Birds in Reserves Project (BIRP), and later SABAP2. BIRP was initiated after SABAP1 specifically to collect data for reserves and conservation areas. When the SABAP2 project started in July 2007 the spacial reference grid was changed from species per quarter degree sqaure to species per pentad (5' latitude x 5' longitude – that is 9 smaller squares per quarter degree grid cell).

This study investigates the changes in bird populations and abundance (using SABAP reporting rates) for the Lydenburg area and analyses the 2530AB (Lydenburg) and 2530BA (Long Tom Pass) quarter degree grid cells over a period of more than 30 years. The aim of this article is to compare the historical data obtained in Lydenburg during the early 1980s and to highlight how the bird species diversity had changed from SABAP1 to the SABAP2 period.

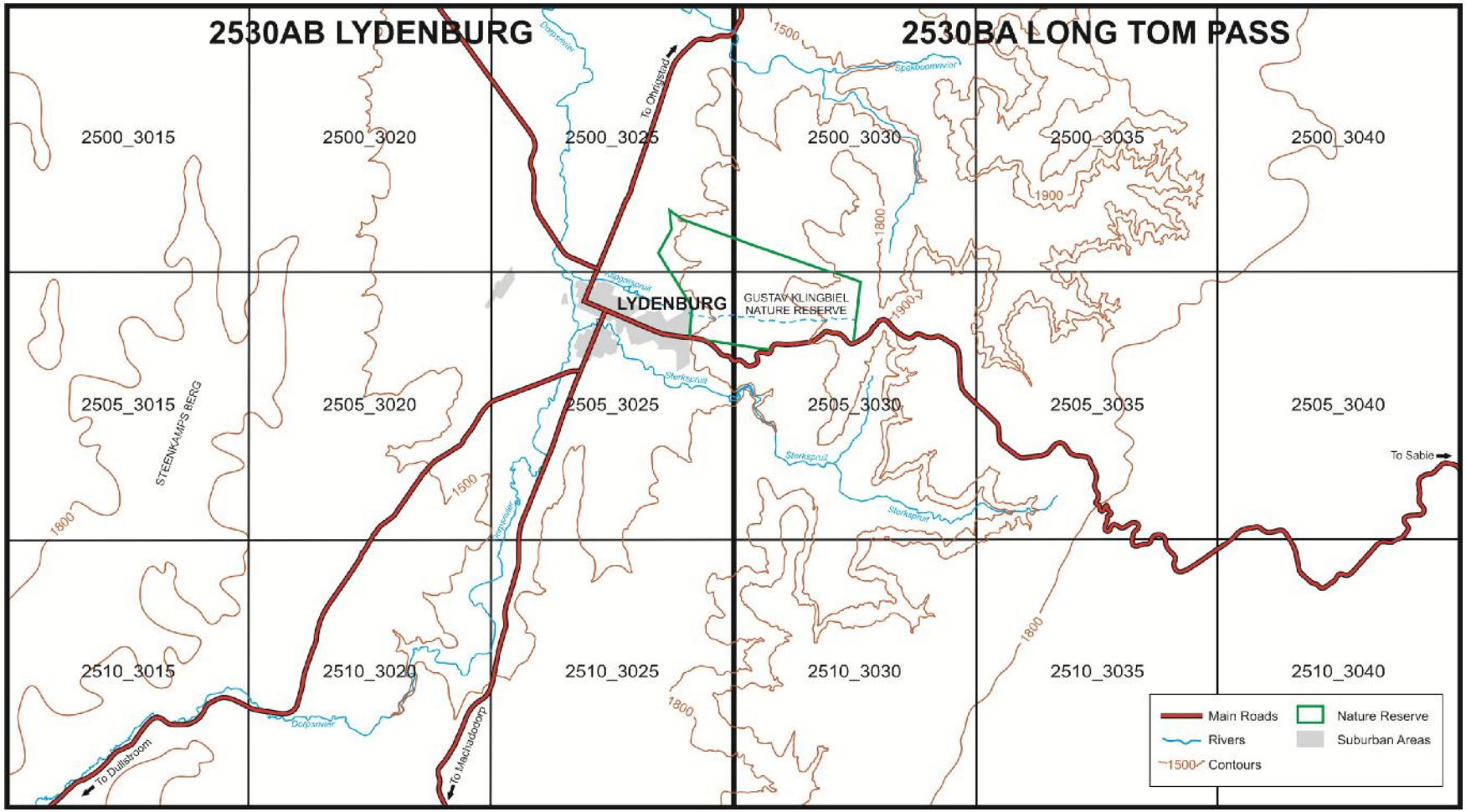

Fig 1 - Map of the Lydenburg area, Mpumalanga with 2530AB Lydenburg and 2530BA Long Tom Pass quarter degree squares with pentads (smaller black squares).

Study area, vegetation and methods

The study areas described in de Swardt (1990) were mainly concentrated in and around the Lydenburg suburban areas, the GKNR along the Long Tom Pass and the valley along the Sterkspruit River towards the De Kuilen Fish hatchery and the Sterkspruit Nature Reserve area. This study area forms a part of the 2530AB Lydenburg and 2530BA Long Tom Pass quarter degree squares (now SABAP2 2505_3025, 2505_3030, 2500_3025 and 2500_3030 pentads) (Fig 1). Areas surrounding Lydenburg were also visited and surveyed for research and atlasing purposes since 1987 (in the two QDS) and it included the Steenkampsberg mountain range and areas along the Spekboom River towards the Finsbury area on the Mount Anderson escarpment.

The study area straddles the borders of the Highveld, bushveld and escarpment vegetation areas described and shown in the "Transvaal" maps by Tarboton *et al.* (1987). Lydenburg therefore has grassland, bushveld and Afro-montane vegetation characteristics which attract bird species associated with these habitat types. Lydenburg is situated in the eastern part of the grassland biome and the following vegetation units are described for this area: Lydenburg Thornveld (Gm21), Lydenburg Montane Grassland (Gm18), Northern Mistbelt forest (Fo24) and north towards Ohrigstad the Ohrigstad Mountain Bushveld (SVcb26) vegetation unit (Mucina and Rutherford 2006) (Fig 2). On the high altitude areas, with mountain peaks, slopes and deep valleys around Lydenburg on the Steenkampsberg and Mount Anderson (Long Tom Pass) the Lydenburg Montane Grassland dominates with short grasslands on higher areas and taller grasses on lower slopes. Dominant trees are *Protea roupelliae, P. caffra* and *Faurea saligna,* various species of low shrubs and herbs. On the higher montane areas on isolated cliffs and valleys, small pockets of Northern Afro-temperate Forest communities occur.

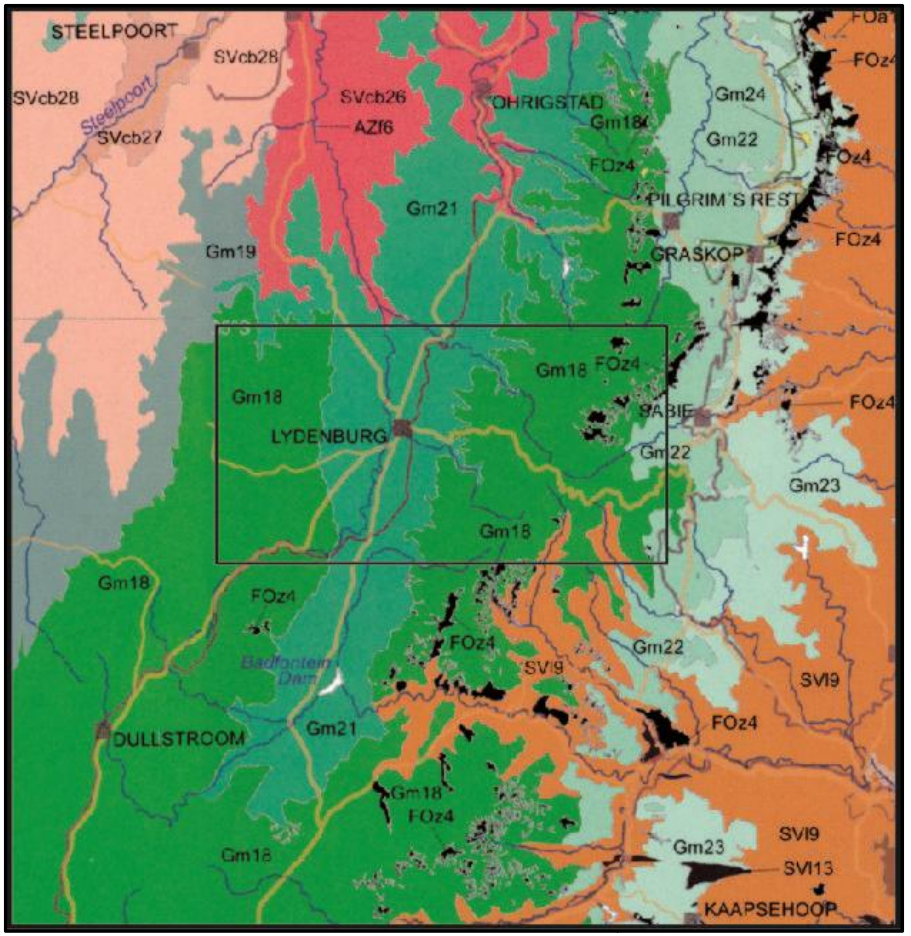

Fig 2 - Vegetation units in the Lydenburg area, Mpumalanga showing the 2530AB Lydenburg and 2530BA Long Tom Pass QDS in the smaller rectangle (vegetation after Mucina & Rutherford 2006). The vegetation units around Lydenburg described in the text are Lydenburg Thornveld (Gm21), Lydenburg Montane Grassland (Gm18), Northern Mistbelt forest (Fo24) and north towards Ohrigstad the Ohrigstad Mountain Bushveld (SVcb26) vegetation unit.

Towards Sabie and Graskop, Northern Mistbelt Forest becomes dominant. These plant communities mainly occur in east-facing kloofs in small patches with *Olinia emarginata*, *Podocarpus latifolius*, *Syzygium gerrardii* and various low shrubs and understorey vegetation. In the lower-lying areas on the foot of the mountains around Lydenburg is the Lydenburg Thornveld vegetation type, and is open frost-hardy woodland. Some areas are rocky and dominated by *Vachellia karroo* with *Cussonia paniculata*, *Dombeya rotundifolia*, *V. ataxacantha* and various low shrubs and climbers. Northwards from Lydenburg outliers of the Ohrigstad Mountain Bushveld occur along the main river systems, characterized by an open to dense woody layer on steep slopes on the mountain sides and in deep valleys.

Typical bushveld trees such as *Vachellia karroo*, *Combretum molle*, *Englerophytum magalismontanum*, as well as *Aloe marlothii* occur on rocky slopes.

The analysis of the comparisons of the birds of the Lydenburg area was performed using SABAP1 data from the 2530AB and 2530BA quarter degree grid cells and SABAP2 data from the 18 pentads in these 2 quarter degree grid cells. The Bird in Reserves (BIRP) data of the GKNR and the Lydenburg Fisheries (now Lydenburg Production Unit) of the periods 1992 to ca. 2000 were also obtained from the ADU website for data analysis. The pentads around Lydenburg (2505_3025, 2505_3030, 2500_3025 and 2500_3030) were used for the main species analysis while the reporting rate comparisons of the 2530AB and 2530BA QDGC of SABAP1 were compared with reporting rates in the 18 pentads of the QDGC of SABAP2 bird data. The reporting rate data analysis of SABAP2 data were analyzed as a mean reporting rate percentage of total cards (n=103) for both quarter degree squares.

Results and Discussion

A total of 276 species hads been recorded during the 1980s study of the birds of the Lydenburg area. This study covered only portions of the four pentads (2500_3025, 2500_3030, 2505_3025, 2505_3030) of the current SABAP2 project, with 210 species classified as resident and migrants, 55 as visitors and 11 species as early records (or rare birds). By comparison, in the same four pentads sampled during SABAP2 a total of 243 species had been recorded (July 2007-February 2014). Of the birds recorded in the 1980s study, only ten species had not been recorded again in the areas around Lydenburg since the start of SABAP1 in 1987 (Table 1). It is of concern that Booted, Ayres Hawk, and Martial Eagles as well as Pallid Harriers were not recorded in the Lydenburg study area in the past 2 decades.

African Grass-Owls were recorded at the vlei area of the Lydenburg Golf Course in October 1981 and were never recorded in the areas along the Klipgatspruit. Owl pellets collected at that time contained mainly Vleirat skulls (*Otomys* spp.). Currently African Grass-Owls have only been recorded in the Dullstroom and Belfast areas during SABAP2. The second species of interest were a group of four Magpie Shrikes observed at the *Eucalyptus* trees at the Lydenburg Golf Course during September 1981. Reports of this species have been made in the Krugerspos area north of Lydenburg (SABAP2 pentad 2450_3025) in July 1986. Pennant-winged Nightjar and Grey Go-away-birds had also been observed historically in this same pentad (de Swardt 1990, *pers. obs*). The current SABAP2 distribution for the latter species is in the bushveld areas of Groblersdal towards Burgersfort and further east in the lowveld areas around Hoedspruit and Hazyview southwards towards Nelspruit. Pennant-winged Nightjar is currently only commonly recorded in the northern parts of the Kruger National Park (KNP).

During the SABAP1 field surveys a total of 345 species were recorded in the Lydenburg and Long Tom Pass quarter degree grid squares, while 298 species have been recorded in SABAP2 surveys up to February 2014 in the 18 pentads around Lydenburg. BIRP surveys resulted in a total of 217 species being recorded in the GKNR and Lydenburg Fisheries areas. The total species list for the Lydenburg area recorded since the 1980s is currently at 382 species. In the rest of this paper comparisons of species recorded during SABAP1, BIRP and SABAP2 projects will be made and species reporting rates discussed. New species which established themselves during or after SABAP1 (e.g. Common Myna and White-browed Sparrow-weavers) will be discussed as well.

Table 2 lists 16 bird species showing a decrease and 46 species showing an increase in reporting rates between SABAP1 and SABAP2. The increase in some of the reporting rates can be attributed to the following reasons: dam impoundment in the Sterkspruit and Spekboom Rivers for trout farming (mainly waterfowl and other water associated species benefit), denser vegetated gardens of the older parts of the town and new urban developments creating new habitats (this led to increased abundance of doves and other passerine species) and exotic clumps of *Eucalyptus* and other tree species which attract raptor species. The decrease in reporting rates can mainly be attributed to factors of urbanization which have effects on bird populations. In the grassland areas outside the town towards the Long Tom Pass area a new urban area bordering GKNR was established. Decreases had been observed in raptor species (Secretarybird and Rock Kestrel) and a few woodland or thornveld species (Black-crowned Tchagra, Bokmakierie and Southern Black Flycatcher) where newly developed areas along rivers and in natural vegetation had an impact on bird populations. The developments on the Long Tom Pass impacted populations of White-bellied Korhaan on the grassland areas in GKNR. The reporting rate differences may also be biased as proper SABAP2 surveys have not been done in the immediate areas around the town. Several species recorded in SABAP1 surveys still have to be recorded in the current atlas surveys. The re-discovery of Broad-tailed Warblers in GKNR in November and December 2007 after nearly 20 years is one example showing the dynamics of the bird populations and the need to continue with bird atlasing projects. For example, Chestnut-vented Tit-babbler was described as a "*widespread resident*" during the De Swardt (1990) survey, yet it has a reporting rate of only 0.85% during SABAP1, and has not been recorded during SABAP2. However, suitable habitat where this species could occur has not yet been thoroughly surveyed (pers. obs). Other species commonly recorded during SABAP1 and earlier were not yet recorded during SABAP2, but are also more likely to be recorded at regular intervals: Green-backed Heron, Black Stork, Little Sparrowhawk, Shelley's Francolin, Grey Crowned Crane, Denham's Bustard, Jacobin Cuckoo, Half-collared Kingfisher, Malachite Kingfisher, White-throated Robin and Gorgeous Bush Shrike, to name a few.

The 20 most common birds with the highest reporting rates during SABAP1 and SABAP2 are listed in Table 3. High on this list during SABAP1 was Dark-capped Bulbul, Common Fiscal, Hadeda Ibis, Red-winged Starling and Cape Turtle Dove. Reporting rates started changing with SABAP2: the Dark-capped Bulbul still tops the list followed by Cape White-eye and Common Fiscal. Cape Robin-chat and African Stonechat (which had lower reporting rates in SABAP1) fill the 4th and 5th places. The higher reporting rates of these birds can be attributed to their adaptation to a suburban environments: large trees in gardens with dense cover, flowering aloes and other plants (mostly passerine species and sunbirds) and the riverine areas with emergent reed vegetation and dense riverine bush in the

surroundings. Tall grass areas (mostly in moist areas along streams) around the town support populations of White-winged Widowbird, Cape Grassbird, African Stonechat, Common Waxbill and in more shrubby areas in mountainous areas, Drakensberg Prinia.

Since the start of the SABAP1 project in 1987 a total of 55 new bird species had been recorded for the Lydenburg area (Table 4). Of these, seven species showed an increase in abundance (or reporting rates): viz. Southern Bald Ibis, Crested Francolin, Brown-throated Martin, White-necked Raven, Ant-eating Chat, Common Myna and White-browed Sparrow-Weaver.

The Southern Bald Ibis had been observed roosting in *Eucalyptus* trees along the Sterkspruit River in the town in the past few years. They are now a common species at sport fields and on the golf course.

White-necked Ravens were also more frequently observed in the higher mountainous areas along the Long Tom Pass and the Steenkampsberg mountain range.

The adaptation of especially Ant-eating Chats, Common Myna and White-browed Sparrow-weavers to new habitats were noticed mainly during and after the SABAP1 project when a noticeable increase in abundance were recorded. Ant-eating Chats were first observed in the Lydenburg area in October 1988 in burnt grassland near GKNR (de Swardt 1989).

The increased abundance of Common Mynas in the Highveld towns (such as Belfast, Dullstroom, Carolina, and Hendrina) were recorded during the late 1980s to early 1990s when travelling to Lydenburg to do fieldwork on Gurney's Sugarbirds (pers. obs). The first record in Lydenburg was from BIRP data from GKNR probably during 1992, thereafter becoming more abundant in the suburban areas. Common Myna was not reported during SABAP1.

White-browed Sparrow-weavers were first observed in the late 1980s and early 1990s in bushveld areas north of Lydenburg in the Krugerspost and Ohrigstad areas. An increase in their abundance was recorded after 1992 in the suburban areas of Lydenburg where breeding in *Eucalyptus* trees was first noted in January 1991 (pers. obs.). White-browed Sparrow-Weaver is currently recorded in pentads 2500_3020 and 2500_3025.

Of the birds listed in Table 4, twelve birds show low reporting rates in both SABAP projects (some species were recorded in one project only). These species can be considered as vagrants or species rarely recorded on the Lydenburg area. One of these, Fairy Flycatcher, is considered to be a winter migrant to the Lydenburg area. These birds were sighted at the Lydenburg Fisheries Institute and town areas in June 1992 (de Swardt and Schoeman 1992). According to Tarboton *et al.* (1987) a few lowveld records were obtained in the early 1980s. During the current SABAP2 they were recorded near Belfast (2545_3005), Nelspruit (2525_3055) and in the southern KNP (2455_3135).

A rare vagrant to Lydenburg was a Spotted Crake which was observed in moist grassland along the Sterkspruitriver in the town during December 1990 (Schoeman & de Swardt 1991). Very few records of this species were obtained in both SABAP1 and SABAP2.

Table 5 lists a total of 49 species rarely recorded in the immediate vicinity of Lydenburg in the 2530AB and 2530BA QDGCs since SABAP. These species were more frequently recorded in the

outlying SABAP2 pentads around Lydenburg. The distribution area for each of these species or where they were recorded during SABAP2 surveys are also summarized in Table 5. Most of these species are unlikely to be recorded in the immediate Lydenburg area (unless as vagrants) and are more commonly or less commonly recorded in the bushveld areas (around Burgersfort-Ohrigstad), grassland areas (Dullstroom-Belfast), Afro-temperate forests on the escarpment (Sabie-Graskop) and more eastwards to the lowveld (Nelspruit-KNP). A total of 22 of these species has been recorded in and around Lydenburg during the past few years since the starte SABAP2 and earlier). Most of them were vagrants to the area (highlighted in the shaded rows in Table 5). These include a sighting of Bronze-winged Courser in GKNR in *Protea* woodland in November 1995, Narina Trogon and Knysna Turaco in the Finsbury area, and winter influxes of Grey and Southern Yellow-billed Hornbills in suburban areas of Lydenburg (pers obs; de Swardt and Schoeman 1992).

Grey Go-away-birds have been observed in the Krugerspos area during the past twenty years (specimen record – December 1991), but seemed more abundant in the Burgersfort and Ohrigstad areas north of Lydenburg.

Conclusion

The Lydenburg area has experienced considerable developments in the past 30 years. The increase of mining activities and factories increased pressure on Lydenburg, led to several suburban developments and open veld areas in and around town made way to housing developments. Areas along the main road to Sabie on the Long Tom Pass, which used to be open grassland areas, and bordering the GKNR have become housing development and business centres. Considering all these developments, it is not surprising that the bird populations have changed considerably during the past ten years. The data is showing that the common birds (the so-called "trash species") get commoner (with wider distribution ranges and more abundant) with increased development, whereas the rarer and more threatened species are under pressure (example African Grass Owl and raptor species), decreasing in range, occupancy and abundance. This study highlights the following conservation implications for the area under discussion: loss of Red Data and endemic bird species and their replacement with common, widespread and alien invasive species.

In the grassland areas (with patches of thornveld), grassland species such as Rufous-naped Lark and White-bellied Korhaans have been replaced by typical garden birds and influxes of the invasive alien Common Mynas. Lydenburg (and Dullstroom) is known as a trout angling area and several trout farms had been established along the Sterkspruit and Potloodspruit (example Finsbury) rivers where dam impoundments are attracing water birds and other water-associated species. African Fish Eagles, for example, which were a rare sight in the Lydenburg area in the 1990s, are now common at these water bodies. Decreased reporting rates for African Black Duck, other duck species and other species dependent on rivers (Mountain Wagtail) is of concern because these developments in rivers have altered bird populations. The introduction of Mallard Ducks in certain areas is of conservation concern as well. These changes in habitat in the past 30 years are probably also the reason for nearly 50 new species recorded in the Lydenburg area since 1987 (see Table 4). I believe certain "common species", e.g. Chestnut-vented Tit-babbler and others, recorded during the de Swardt (1990) surveys and SABAP1 are under-reported during SABAP2 thus far and are more common than the records and this data analysis is showing.

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References

Bunning LJ 1985. Proceedings of the Bird and Man Symposium. Witwatersrand Bird Club: Johannesburg.

Cyrus D, Robson N 1980. Bird atlas of Natal. University of Natal Press: Pietermaritzburg

De Swardt DH 1989. Anteating Chats in Lydenburg. *The Hornbill* 16:19.

De Swardt DH 1990. Birds of the Gustav Klingbiel Nature Reserve and the Sterkspruit area. *Southern Birds* 16: 1-67.

De Swardt DH 1991. The seasonal movements of Gurney's Sugarbird *Promerops gurneyi* in the Lydenburg area, Transvaal. *Ostrich* 62: 40-44.

De Swardt DH, Schoeman S 1992. New sightings for the Lydenburg area. *The Hornbill* 30: 26-27.

Earlé RA, Grobler NJ 1988. First atlas of bird distribution in the Orange Free State. National Museum: Bloemfontein.

Mucina L, Rutherford MC (Eds) 2006. The vegetation of South Africa, Lesotho and Swaziland *Strelitzia* 19. SANBI: Pretoria.

Prys-Jones RP 1984. A bird population data bank for South Africa? *Bokmakierie* 36: 99-102.

Schoeman S, De Swardt DH 1991. Spotted Crake in Lydenburg. *Laniarius* 43:8.

Tarboton WR, Kemp AC, Kemp M 1987. Birds of the Transvaal. Transvaal Museum: Pretoria.

Table 1: Birds recorded during the Southern Birds (1990) survey, with no subsequent records in the Lydenburg area up to February 2014

Species	Observation date	Habitat
Booted Eagle	December 1984	Mountain areas
Ayres's Hawk-Eagle	January 1986	Observed in Lydenburg town
Martial Eagle	April 1986	Mountain areas
Pallid Harrier	December 1990	Grasslangds near the town
Common Greenshank	November 1986	Vlei areas along Klipgatspruit
African Grass-Owl	October 1981	Vlei areas at the Lydenburg Golf Course
Common Swift	December 1982	Observed in Lydenburg town area
Purple Roller	December 1985	Observed at wooded area in Gustav Klingbiel Nature Reserve
Magpie Shrike	September 1981	Lydenburg Golf Course (also Klipplaatdrift area, near Krugerspos 1986)
Red-billed Hornbill	December 1982	Mountain woodland

Table 2: *Birds recorded since the Southern Birds (1990) survey which show an increase or decrease in reporting rates between SABAP1 and SABAP2*

Species	SABAP 1 RR % (n=264)	Recorded during BIRP Surveys (n=33)	SABAP2 RR % (n=103)	Increase / Decrease in reporting rate	Change in reporting rate
Yellow-fronted Canary	19.3	1	57.3	Increase	38.0
Bar-throated Apalis	26.5	1	61.6	Increase	35.1
Sombre Greenbul	16.3	1	49.5	Increase	33.2
Drakensberg Prinia	19.4		52.4	Increase	33.0
Cape Grassbird	28.0	1	60.2	Increase	32.2
Common Waxbill	34.0	1	58.3	Increase	24.3
Levaillant's Cisticola	18.7	1	41.7	Increase	23.0
Southern Boubou	30.5	1	52.4	Increase	21.9
Southern Red Bishop	16.3	1	37.9	Increase	21.6
European Bee-eater	14.7	1	35.9	Increase	21.2
Neddicky	22.1	1	42.7	Increase	20.6
Tawny-flanked Prinia	25.7	1	44.7	Increase	18.9
Southern Masked Weaver	30.5	1	45.6	Increase	15.2
African Black Swift	12.4	1	27.2	Increase	14.8
African Paradise Flycatcher	10.8	1	25.2	Increase	14.5
African Palm-Swift	17.9	1	32.0	Increase	14.1
Cape Robin-Chat	56.9	1	70.9	Increase	14.0
African Wattled Plover	4.5	1	18.4	Increase	13.9
Steppe Buzzard	14.4	1	28.2	Increase	13.8
African Stonechat	56.2	1	69.9	Increase	13.7
Long-crested Eagle	2.0		15.5	Increase	13.6
Red-eyed Dove	36.0	1	49.5	Increase	13.5
ZittingCisticola	10.8	1	24.3	Increase	13.5
Barn Swallow	33.7	1	46.6	Increase	12.9
Egyptian Goose	18.2	1	30.7	Increase	12.5
Amur Falcon	14.7	1	27.2	Increase	12.5

Species	SABAP 1 RR % (n=264)	Recorded during BIRP Surveys (n=33)	SABAP2 RR % (n=103)	Increase / Decrease in reporting rate	Change in reporting rate
Rufous-naped Lark	21.8	1	34.0	Increase	12.2
Fan-tailed Widowbird	5.7	1	17.5	Increase	11.8
Black Saw-wing	8.7		20.4	Increase	11.7
Fiscal Flycatcher	12.2	1	23.3	Increase	11.1
African Reed-warbler	2.3		12.6	Increase	10.3
African Fish-Eagle	1.7	1	11.7	Increase	10.0
White-browed Scrub-robin	2.0	1	10.7	Increase	8.7
Black Cuckooshrike	2.2	1	10.7	Increase	8.4
Yellow-billed Duck	14.0	1	22.3	Increase	8.3
Little Swift	8.5	1	16.5	Increase	8.0
Willow Warbler	10.5	1	18.4	Increase	8.0
Golden Weaver	7.1	1	14.6	Increase	7.4
Green Wood-Hoopoe	3.7	1	10.7	Increase	7.0
Common Moorhen	6.9	1	13.6	Increase	6.7
Golden-tailed Woodpecker	2.3	1	8.7	Increase	6.4
Southern Black Tit	3.4	1	8.7	Increase	5.3
Chorister Robin-chat	10.4	1	14.6	Increase	4.2
Coqui Francolin	2.8	1	3.9	Increase	1.1
Crowned Lapwing	20.6	1	19.4	Decrease	-1.1
White-winged Widowbird	29.7	1	27.2	Decrease	-2.5
Familiar Chat	26.2	1	23.3	Decrease	-2.9
Red-faced Mousebird	11.1	1	7.8	Decrease	-3.3
Southern Black Flycatcher	14.2		6.8	Decrease	-7.4
Red-throated Wryneck	19.6	1	11.7	Decrease	-8.0
Secretarybird	8.5	1	0.1	Decrease	-8.4
Grey Heron	15.4	1	5.8	Decrease	-9.6
Black-collared Barbet	36.3	1	22.3	Decrease	-14.0

Species	SABAP 1 RR % (n=264)	Recorded during BIRP Surveys (n=33)	SABAP2 RR % (n=103)	Increase / Decrease in reporting rate	Change in reporting rate
Red-winged Starling	71.0	1	56.3	Decrease	-14.7
White-faced Duck	15.5		0.1	Decrease	-15.4
African Hoopoe	26.7	1	6.8	Decrease	-19.9
Hamerkop	25.3	1	4.9	Decrease	-20.4
Alpine Swift	36.0	1	15.5	Decrease	-20.4
Rock Kestrel	30.7	1	9.7	Decrease	-21.0
Black-crowned Tchagra	36.3	1	13.6	Decrease	-22.7
Pied Crow	47.7	1	23.3	Decrease	-24.4
Bokmakierie	51.9	1	24.3	Decrease	-27.6

Table 3: *The most common birds recorded during SABAP1 and SABAP2 according to SABAP reporting rates*

	Species	Reporting rate in pentads of 2 QDS during SABAP2	Reporting rate in pentads of 2 QDS during SABAP1
1	Dark-capped Bulbul	98.05 ↑	89.48
2	Cape White-eye	83.49 ↑	54.86
3	Common Fiscal	76.69 ↓	83.65
4	Cape Robin-Chat	70.87 ↑	56.86
5	African Stonechat	69.90 ↑	56.20
6	Amethyst Sunbird	63.10 ↑	55.89
7	Hadeda Ibis	61.16 ↓	78.32
8	Cape Turtle-dove	61.16 ↓	65.98
9	Bar-throated Apalis	61.16 ↑	41.57
10	Cape Grassbird	60.19 ↑	27.96
11	Common Waxbill	58.25 ↑	33.99
12	Speckled Mousebird	57.28 ↑	52.71
13	Yellow-fronted Canary	57.28 ↑	19.28
14	Red-winged Starling	56.31 ↓	71.01
15	Southern Boubou	52.42 ↑	30.52
16	Drakensberg Prinia	52.42 ↑	19.38
17	Cape Wagtail	50.48 ↓	51.34
18	Redeyed Dove	49.51 ↓	55.69
19	Sombre Greenbul	49.51 ↑	16.33
20	Greater DC Sunbird	49.51 ↑	42.06

Table 4: *New bird species recorded in the Lydenburg area since 1987 during SABAP1, BIRP and SABAP2 with average SABAP reporting rates (indication of current abundance / rarity).*

Species	SABAP 1 RR % (n=264 cards)	Recorded during BIRP ** (n=33 cards)	SABAP2 RR % (n=103 cards)
Common Ostrich			0.10
Great Egret	0.57		
Little Egret	2.85	1	
Yellow-billed Egret	0.57	1	0.10
Black Heron	0.57		0.10
Yellow-billed Stork	1.14		
Southern Bald Ibis	4.56	1	9.70
Spur-winged Goose	5.41	1	4.85
Lesser Flamingo			0.10
Lanner Falcon	2.82		1.94
Greater Kestrel	0.84		
Lesser Kestrel		1	
Steppe Eagle	0.57		
Black-chested Snake-Eagle	0.57		
Gabar Goshawk	0.57		
African Marsh-Harrier	0.57		
Osprey	3.42	1	
Crested Francolin	0.57		3.88
Black-winged Lapwing	2.26	1	1.94
Marsh Sandpiper	0.57		

Species	SABAP 1 RR % (n=264 cards)	Recorded during BIRP ** (n=33 cards)	SABAP2 RR % (n=103 cards)
Pied Avocet	0.57		
Spotted Crake		1	
Whiskered Tern			0.10
African Cuckoo	0.84		
Cape Eagle-Owl	0.05		
Freckled Nightjar	2.24	1	
Horus Swift	1.71	1	0.10
Bearded Woodpecker	1.40		0.10
Brown-throated Martin	1.41		10.67
White-necked Raven	3.94	1	11.65
Anteating Chat	10.85		0.10
Red-capped Robin-Chat	2.24	1	0.10
White-browed Robin-Chat	4.00	1	2.91
GardenWarbler	1.14		
Icterine Warbler			2.91
Great Reed-Warbler	1.14		
Lesser Swamp-Warbler	10.28		4.85
Marsh Warbler		1	3.88
Wing-snapping Cisticola	4.23	1	11.65
Ashy Flycatcher			2.91
Grey Tit-Flycatcher	1.14		0.10
Yellow-throated Woodland-Warbler	2.54		5.82

Species	SABAP 1 RR % (n=264 cards)	Recorded during BIRP ** (n=33 cards)	SABAP2 RR % (n=103 cards)
Fairy Flycatcher		1	
Blue-mantled Crested Flycatcher	3.37		1.94
African Pied Wagtail	5.09	1	8.73
Brown-crowned Tchagra	0.84	1	1.94
Common Myna		1	28.15
White-browed Sparrow-Weaver	6.86		4.85
Yellow-crowned Bishop	2.90		4.85
Red-billed Firefinch	1.13	1	2.91
Dusky Indigobird	2.56	1	3.88
Brimstone Canary	5.39		8.73
Eastern Long-billed Lark	1.12		0.10
Rock Dove			0.10
Mallard Duck			0.10

**** Recorded in Gustav Klingbiel Nature Reserve and / or Lydenburg Production Unit areas.**

Table 5: *Birds rarely observed in the immediate Lydenburg area or more frequently recorded in adjacent areas in pentads of the 2530AB and 2530BA quarter degree grid cells. Species in shaded rows were recorded at some time in the Lydenburg area, mostly as vagrants.*

Species	SABAP 1 RR %	BIRP **	SABAP2 RR %	SABAP2 distribution and localities of interest
African Crowned Eagle	10.11		0.10	Dullstroom (2455_3015), Sabie escarpment
Red-necked Spurfowl	2.24			Dullstroom, Sabie escarpment
Kurrichane Buttonquail	8.57			Bushveld of Burgersfort, Ohrigstad, few around Dullstroom
Red-chested Flufftail	0.57			Dullstroom area, Spekboom River (2455_3030)
Buff-spotted Flufftail			1.94	Sabie escarpment
Black-bellied Bustard			0.10	In 2505_3025, Kwena Dam area, lowveld
Temminck's Courser	1.14	1		In scattered bushveld and lowveld localities
Bronze-winged Courser		1		No SABAP records, in GKNR in 1995, Hoedspruit area
Namaqua Dove		1	0.10	Records north (2455_3025) and west (2510_3020) of Lydenburg
Emerald-spotted Wood-Dove	1.70		0.10	Watervals River Pass, Sabie escarpment
Lemon Dove			1.94	Dullstroom (2525_3010), Sabie escarpment
Grey Go-away-bird	1.14			Krugerspos (Ohrigstad) and Burgersfort areas
African Emerald Cuckoo	2.24		6.79	Long Tom Pass and Sabie escarpment
Marsh Owl	0.57			Belfast – Dullstroom area, historically in Krugerspos area??
Narina Trogon	2.24		6.79	Dullstroom, Finsbury area and Sabie escarpment
Woodland Kingfisher	2.28	1		Bushveld of Burgersfort area
Striped Kingfisher	1.13		0.10	Bushveld of Burgersfort - Steelpoort areas
European Roller	0.57		0.10	Potloodspruit& GKNR (March & June 1992)
Lilac-breasted Roller	1.12		0.10	Long Tom Pass (2505_3035)
African Grey Hornbill	0.57		0.10	In 2505_3025, winter visitor to town?
Southern Yellow-billed Hornbill		1	0.10	GKNR (June 1992), bushveld of Burgersfort - Steelpoort

Species	SABAP 1 RR %	BIRP **	SABAP2 RR %	SABAP2 distribution and localities of interest
Red-capped Lark	1.14			Grasslands of Dullstroom area
Sabota Lark	5.61			Bushveld of Burgersfort area
Blue Swallow	3.37			Sabie escarpment, rare and localized
Grey-rumped Swallow	2.24		1.94	Pentads around Kwena Dam, Sabie escarpment
Bush Blackcap			0.10	Sabie escarpment towards Graskop
Terrestrial Brownbul	1.12		3.88	Sabie escarpment in forest patches
Yellow-streaked Greenbul	2.24		3.88	Sabie escarpment in forest patches
Orange Ground-Thrush	2.24		3.88	Sabie escarpment in forest patches (one record in 2505_3035)
Capped Wheatear	2.82			In grasslands in Dullstroom area
Barratt's Warbler	5.61		6.79	Sabie escarpment in forest patches (on Long Tom Pass)
Desert Cisticola	0.57			Bushveld of Burgersfort area
Red-faced Cisticola		1	0.10	BIRP record in GKNR, bushveld and lowveld areas
Croaking Cisticola	3.70		8.73	In 2505_3025, also Watervals River Pass (2455_3020). Western edge of distribution??
Black-chested Prinia	0.57			Bushveld of Burgersfort area & Sabie escarpment
Yellow-breasted Pipit	1.14			Grasslands of Dullstroom & Belfast. 2 records in 2530AB
Lesser Grey Shrike	1.14			Kwena Dam area (2520_3015, 2525_3015), bushveld and lowveld
Retz's Helmet-Shrike			0.10	NW of Lydenburg on Watervalsriver pass towards Steelpoort
Southern White-crowned Shrike	0.57			Lowveld and bushveld areas
Southern Double-collared Sunbird	9.27		13.59	Forest patches at Dullstroom, Sabie escarpment
Scarlet-chested Sunbird	2.55		1.94	Sabie escarpment, bushveld in Steelpoort area
Scaly-feathered Finch	0.57			Bushveld of Burgersfort area
Red-headed Finch	0.57		0.10	Vagrants at town, other in Belfast / Burgersfort areas

Species	SABAP 1 RR %	BIRP **	SABAP2 RR %	SABAP2 distribution and localities of interest
Cut-throat Finch	1.14	1		Ringed in town (December 1995), bushveld localities north and west
Green Twinspot	1.12		0.10	Sabie escarpment towards Graskop
Green-winged Pytilia	0.57			Bushveld of Ohrigstad and Burgersfort areas
Village Indigobird	5.71			Bushveld ofBurgersfort and Lowveldareas
Forest Canary	11.23		4.85	On Long Tom Pass (2505_3035), Sabie escarpment
Knysna Turaco	13.48	1	10.67	Dullstroom, Finsbury area (November 2005) and Sabie escarpment

**** Recorded in Gustav Klingbiel Nature Reserve and / or Lydenburg Production Unit areas.**