



What do birds tell us about grassland management on timber plantations?

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sappi

Introduction



Introduction

Conversion of landscapes dominated by grassland to a landscape covered by trees must impact the distribution and diversity of species.

- quite a lot of information describing how bird distributions have changed
- few publications describing the impact of plantations on birds
- Allen (et. al) 1997 using S.A.B.A.P 1 data worked out diversity indices for 4 lists of birds: grassland and marshland birds; globally threatened species from above list; near-threatened species from the first list; and a list of species thought to benefit from afforestation. They concluded that:
 - Of a list of 150 species, 90 species were less often recorded in areas afforested, and
 - 60 species were more commonly recorded
 - more threatened species detrimentally impacted than advantaged

Introduction

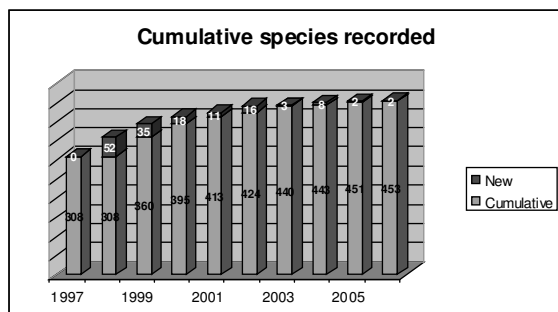
Between 1997 and 2006 Sappi Forests held an annual birding event on plantations where:

- Teams of bird watchers spent a week-end on plantations recording all species sighted (60 – 70 teams of 4 people on about 20 estates)
- Lists entered onto a database – relatively comprehensive lists for most plantations
- This database was interrogated with the following results.



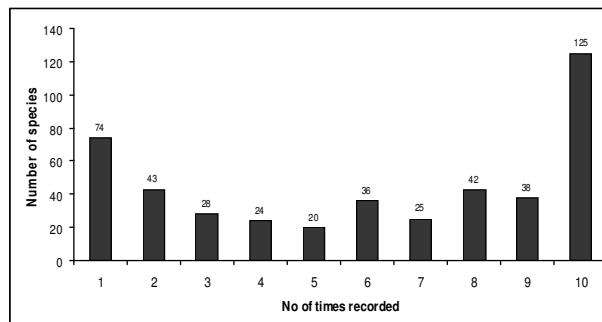
Results

Total of 453 species recorded – 47% of all southern African species



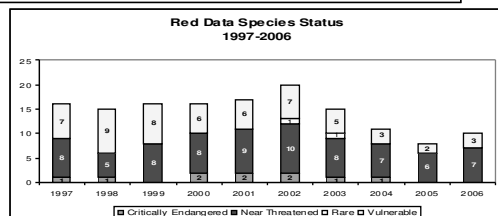
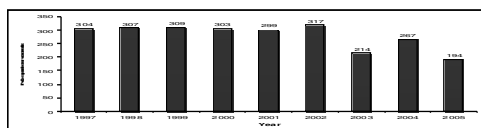
Plantations have a rich diversity of bird species

Results



286 species (63%) recorded 5 times or more

Results



Plantations significant in conservation of some red data species

Results

Species regularly recorded	Status
Blue Swallow	Critically endangered
Wattled Crane	Critically endangered
African Finfoot	Vulnerable
African Marsh Harrier	Vulnerable
Bald Ibis	Vulnerable
Blue Crane	Vulnerable
Grey Crowned Crane	Vulnerable
Martial Eagle	Vulnerable
Southern Ground Hornbill	Vulnerable
Denham's Bustard	Vulnerable
Tawny Eagle	Vulnerable

Habitat analyses

Using Roberts' Multimedia Birds of Southern Africa, Version 3 by Guy Gibbon and the John Voelcker Bird Book Fund, lists of species from the following habitats were extracted: forest; woodland; grassland; mountains; rocks & cliffs; farmland and cultivated lands; inland waters; and towns and cities.

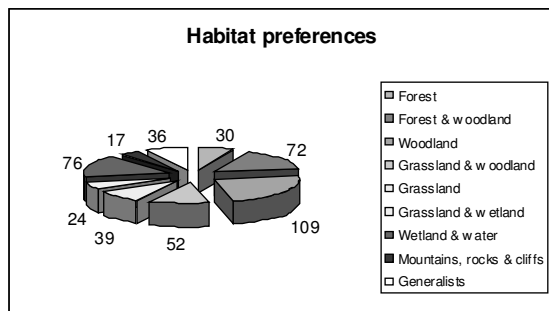
All species recorded on Sappi estates were classified into the following categories: forest; forest & woodland; woodland; grassland & woodland; grassland; grassland & wetland; water & wetland; mountains; rocks and cliffs; and generalists



Results – habitat analysis

	Total species per habitat	No. species recorded on estates	% of species per habitat recorded on estates
Forest	183	110	60
Woodland	417	247	59
Farmland	230	180	78
Towns	162	135	83
Grassland	202	129	64
Mountains	98	64	65
Rocks & Cliffs	82	61	74
Inland water	234	121	50

Results – habitat analysis



Land use

Land statistics

	Area (ha)	Percentage of conservation area
Grassland	55 437	48.0
Transitional weedy areas	14 878	12.9
Indigenous forest	11 589	10.0
Thicket	8 511	7.4
Unclassified	5 663	4.9
Woodland	4 980	4.3
Maintained area	4 962	4.3
Shrubland	4 409	3.8
Bushland	2 917	2.5
Wetland	2 148	1.9

Source: GIS data

Conclusions

- Plantations provide a wide range of habitats for a very diverse set of bird species (is diversity increased or decreased?)
- Plantations play a significant role in the conservation of some rare and endangered species
- Of the 90 species that Allen et al 1997 indicated were negatively affected 43 (48%) were regularly recorded on Sappi estates, 27 are occasionally recorded, with only 20 having not been recorded.
- The 55 437 ha of grassland managed by Sappi are important for biodiversity conservation
- It is important that conservation areas are managed appropriately and responsibly – maintain healthy habitats as significant number of species occur here

