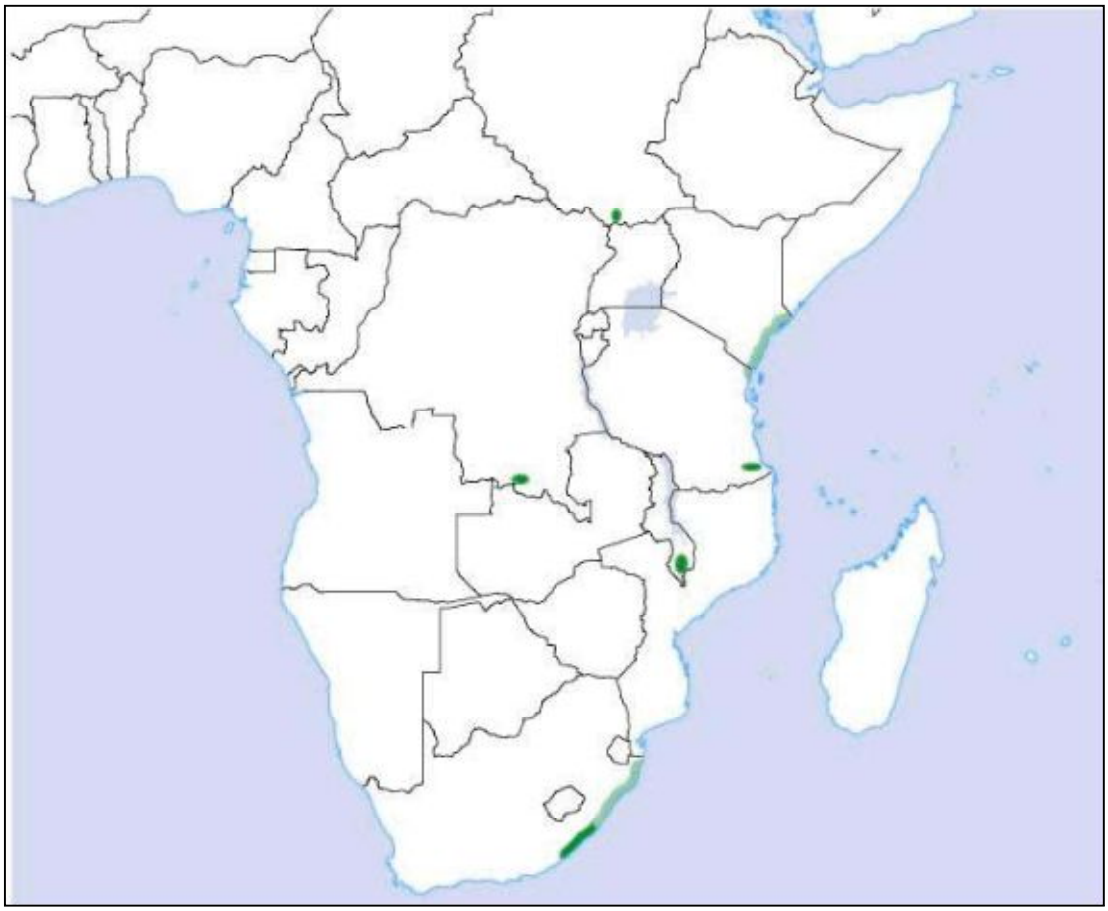
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Threatened Birds of Africa
International Action Plan for Spotted Ground Thrush
Zoothera guttata



Edited by P. K. Ndang'ang'a, E. Sande, S. W. Evans, P. Buckley, P. Newbery, D. A. Hoffmann and J. John (2005).

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International Species Action Plan for the Spotted Ground Thrush *Zoothera guttata*

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Funders
- The UK Department for the Environment, Food and Rural Affairs (Defra) under the Darwin Initiative for the Survival of Species
- The Royal Society for the Protection of Birds (RSPB, the BirdLife International Partner in the UK)
- The BirdLife International Africa Partnership

New Information
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A BirdLife International Africa Partnership Publication

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Recommended citation

Ndang'ang'a, K., Sande, E., Evans, S.W., Buckley, P., Newbery, P., Hoffmann, D. A and John, J. (eds). 2005. International Species Action Plan for the Spotted Ground Thrush *Zoothera guttata*. BirdLife International, Nairobi, Kenya and Royal Society for the Protection of Birds, Sandy, Bedfordshire, UK.

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BirdLife International is a UK registered charity with an Africa Partnership Secretariat registered as an international NGO in Nairobi, Kenya.

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ISBN No.???????

First published 2005 by BirdLife International

Produced by the RSPB (BirdLife International Partner in the UK)

Printed in Sandy, UK

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Preface

The relationship between BirdLife International and IUCN-The World Conservation Union stretches back into the formative years of both organizations. BirdLife International is IUCN's main partner and advisor on issues related to bird conservation and has played a leading role in the Consortium formed to develop the IUCN Red List of Threatened Species (www.iucnredlist.org) into a global tool for biodiversity conservation.

A particularly close relationship exists between BirdLife International and IUCN's Species Survival Commission (SSC). Each being extensive networks of species conservation expertise, the two organisations have worked together to produce several coordinated global assessments of the world's birds since the 1980s.

As an active member of the Red List Consortium, BirdLife International has taken a leading role in the development of the Red List criteria and standards, and has pioneered the development of Red List indicators. Using this system, BirdLife's 16 years of Red List data is allowing us to see meaningful trends in the status of the world's birds.

In Africa, BirdLife International has already taken a lead in site-based bird conservation, culminating in its landmark publication *Important Bird Areas in Africa and Associated Islands*. The concept of Important Bird Areas (at both national and regional levels) has proved very useful and is already showing direction for other types of biodiversity conservation on the continent.

However, the conservation of key sites alone may be insufficient to protect many species. Species with dispersed ranges, with only a small proportion of their population inside protected areas, or species facing a multitude of threats, often require a more integrated approach. Conservation efforts for such species require careful planning, taking into account the views and interests of all stakeholders, so allowing conservationists and ecosystem managers to mobilise their resources in an effective and strategic way.

This action plan is one in a series produced by BirdLife International for threatened birds in Africa. I urge all readers and users of this publication to push the conservation of Africa's birds, cornerstones and indicators of the continent's natural wealth, to a new level. Awareness of the need to conserve species and their habitats is slowly growing amongst policy makers. What we often lack are the tools and guidance to implement the appropriate measures. This series provides that critical service. In raising the profile of the problems facing Africa's avian species and the measures needed to secure their future, I believe, these plans will have a long-lasting impact on the conservation, not only of birds, but of the continent's rich biodiversity.

Achim Steiner
Director General
IUCN – The World Conservation Union

Foreword

Birds are part of the global ecosystem and studying them tells us about the natural environment on which we all depend and its biodiversity. Humankind values birds for educational, economic, recreational, cultural, ethical and spiritual reasons. Because birds are important, 105 countries worldwide are working together through the BirdLife International Partnership to conserve the world's birds and their habitats.

The Africa BirdLife International Partnership, currently represented in 18 African countries, has so far documented 1,230 Important Bird Areas (IBAs), sites that are internationally important for the conservation of birds and biodiversity in Africa. Unfortunately, 43% of these have no legal protection, leaving a fifth of the continent's globally threatened bird species at greater risk of extinction.

Africa has a total of 349 globally threatened bird species. Some of these are residents of more than one country, others are migratory or widely dispersed. The conservation of cross-border, migratory or widely dispersed species requires concerted strategic species-based approaches such as Species Action Plans, to complement long-term site-based strategies such as National Parks and other protected area systems. Species Action Plans are scientifically authoritative documents that, with wide consultation and agreement with the major stakeholders, provide the relevant agencies with specific and time-bound actions for conserving priority species. Species Action Plans therefore provide a framework for action at local, national and international levels, in addition to being used as fundraising and advocacy tools.

With funding from the UK Department for Environment, Food and Rural Affairs (Defra), under the Darwin Initiative for the Survival of Species, and with financial and technical support from the Royal Society for the Protection of Birds (the RSPB, the BirdLife International Partner in the UK), the Africa BirdLife International Partnership has developed a format and process of species action planning involving the participation of representatives from governments, species experts and interest groups, conservation NGOs and local communities. This Species Action Plan is one of seven international and 15 national plans for priority bird species in Africa, which were produced as a pilot to test the new approach. It is hoped that the format and process used in the production of these plans will act as a model for the production of other plans for the conservation of priority threatened fauna and flora in different countries of Africa and beyond.

The production of action plans is just the beginning of the process, because it is important to translate the plans into action. The involvement and agreement of national government representatives in the production of these plans will help stimulate the inclusion of the plans into existing and proposed national conservation strategies. In addition, members interested in the conservation of individual species will evaluate the successes and failures of the implementation process.

It is hoped that all those interested in the wise use of Africa's natural resources and the conservation of her breathtaking bird diversity will make effective use of these plans.

Achilles Byaruhanga
Chairman, Council of BirdLife Africa Partnership 2004/5
Executive Officer, ***Nature***Uganda (BirdLife in Uganda)

Acknowledgements

This Action Plan is an output of a three year project – *'Action Plans for the conservation of Globally Threatened birds in Africa'* which in turn is part of the Species Conservation Programme of the African Partnership of BirdLife International. Major support for the project came from the UK Department for the Environment, Food and Rural Affairs (Defra) under the Darwin Initiative and the Royal Society for the Protection of Birds (the RSPB, BirdLife in the UK). Special thanks are due to these two organisations.

The project was co-ordinated on behalf of the BirdLife Africa Species Working Group (ASWG) (a technical arm of the BirdLife International Africa Partnership) by ***Nature***Uganda, BirdLife South Africa and the RSPB (BirdLife in Uganda, South Africa and UK respectively). The project was supported and implemented by 17 African BirdLife Partner Organisations. Their efforts were unrelenting and BirdLife International thanks them all sincerely.

A network of dedicated people throughout Africa formed Species Interest Groups (SIGs), which were led at national level by National Species Co-ordinators. The SIGs worked to promote the aims of the project and species conservation in general. The International Coordinator of Spotted Ground Thrush Species Interest Group with support from staff of Nature Kenya and Ornithology Department of the National Museums of Kenya played a pivotal role in developing this Action Plan by pooling and sharing information and organising an International Stakeholder Species Action Plan workshop that was attended by individuals from all the range states of the species – South Africa, Tanzania, Malawi, Kenya and the Democratic Republic of Congo. There was also very strong support for the development of this Action Plan from the relevant government departments and academic and research institutions of these countries. Warm thanks are due to all those involved in these organisations.

Many other individuals both inside and outside Africa contributed information, advice and support. BirdLife International thanks them all. May their efforts for species conservation continue to flourish.

Acronyms and definitions:

AC: The Algiers Convention – The African Convention on the Conservation of Nature and Natural Resources

ASFGA: Arabuko-Sokoke Forest Guides Association

ASWG: African Species Working Group. ASWG is a technical arm of the BirdLife International Africa Partnership. Its role is to promote single species conservation initiatives within the BirdLife African Partnership through continuous development and implementation of an African Bird Species Conservation Programme.

BCP: Biodiversity Conservation Programme (EU Trust Fund in Kenya)

CAP: BirdLife Council for the African Partnership (see back cover)

CBD: Convention on Biological Diversity

CBNRM: Community-based Nature Reserve Management

CITES: Convention on International Trade in Endangered Species of Wild Fauna and Flora`

CMS: The Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention)

DANIDA: Danish International Development Agency

DEFRA: The UK Department for the Environment, Food and Rural Affairs (known as Defra)

DRC: Democratic Republic of Congo

EBA: Endemic Bird Area. EBAs are defined as places where two or more species of restricted range i.e. with world distributions of under 50,000 km2 occur together (Stattersfield et al, 1998)

EIA: Environmental Impact Assessment

GEF: Global Environment Facility

GSBA: Globally Significant Biodiversity Areas

IBAs: Important Bird Areas. IBAs are sites of global biodiversity significance identified using international, objective standard scientific criteria. Places may be considered IBAs if they hold globally threatened species; restricted range species (world range <50,000 km2); biome-restricted species and/or congregations of significant numbers of the global population of a bird species. An IBA should as far as possible, be different in character from the surrounding area; exist as an actual or potential protected area; and, alone or with other sites, provide all the requirements of the birds, when present, for which it is important. (Fishpool and Evans, 2001).

ICIPE: International Centre for Insect Physiology and Ecology

IGA: Income-generating activities

ISAPC: International Species Action Plan Coordinator

IUCN: The World Conservation Union

KEFRI: The Kenya Forestry Research Institute

KNH: Kindernothilfe

KWS: Kenya Wildlife Service

KZN: Kwa Zulu Natal

MMCT: Mulanje Mountain Conservation Trust

NABU: Natureschutzbund

NBSAPs: National Biodiversity Strategies and action plans

NGO: Non-Governmental Organisation

NIBACS: National Important Bird Area Conservation Strategies

NINA: Norwegian Institute for Nature

NMK: National Museums of Kenya

NORAD: Norwegian Agency for Development Cooperation

NSAPC: National Species Action Plan Coordinator

OBICOK: Organization of Information about Biodiversity and Conservation in Congo Kinshasa

RSPB: Royal Society for the Protection of Birds

SAP: Species Action Plan. 'A Species Action Plan (SAP) is a scientifically authoritative, strategic document that defines specific, measurable objectives and actions for conserving priority species. The plan should be achievable, time-bound and involve all appropriate stakeholders.' (BirdLife International Africa Partnership, 2001).

SCWG: South African Crane Working Group

SGT: Spotted Ground Thrush

SIG: Species Interest Group. A Species Interest Group/Species Working Group is a group of people interested in the conservation of a species. It usually includes experts who have a lot of knowledge of the species and are interested in promoting its conservation but could also include a variety of other stakeholders such as local communities, hunters, business people etc. (BirdLife International Africa Partnership, 2001).

SSC: Species Survival Commission

SSG: Site Support Group. Local people based in or around sites who are concerned about biodiversity loss and who draw on the experience and achievements of the wider BirdLife International Partnership to create local solutions for biodiversity conservation and improved livelihoods.

SSNC: Swedish Society for Nature Conservation

TAWIRI: Tanzania Wildlife Research Institute

UNESCO (MAB): United Nations Educational, Scientific and Cultural Organisation (UNESCO's) Man and Biosphere Programme

WCST: Wildlife Conservation Society of Tanzania

WESM: Wildlife and Environmental Society of Malawi

WESSA: Wildlife and Environment Society of South Africa

WHC: The World Heritage Convention – A convention for the conservation of areas that are outstanding global cultural or natural value

Executive summary

This International Action Plan is designed for conservation of the endangered Spotted Ground Thrush *Zoothera guttata*, a rare, elusive and little-known African bird. The species has a wide but fragmented distribution, with five races now recognised: one each in the coastal forests of East Africa and Natal (South Africa), one in a few tiny patches of mountain forest in southern Malawi, one in the Imatong Mountains of southern Sudan and one in south-eastern Democratic Republic of Congo. It is mainly threatened by destruction of its forest habitat leading to a rapid decline of its population. Since the Spotted Ground Thrush is a cross-border species, co-ordinated action between the range countries is needed to ensure its future survival, thus the need for an International Species Action Plan.

This Action Plan provides a framework for ensuring the long-term survival of a viable population of the Spotted Ground Thrush and its ultimate removal from the IUCN Red Data list. The five-year plan sets out conservation strategies aimed at enhancing knowledge of the distribution and conservation biology of the species, in order to act to stabilise its population. The strategic objectives of the plan include: assessing the natural population dynamics of the species, determining and conserving the breeding, non-breeding and stopover sites of the species along migration routes, and establishing an effective international network for conservation of Spotted Ground Thrush. The successful implementation of this action plan requires a concerted effort and cooperation from different stakeholders. The activities and projects required to achieve each of the strategic objectives, are outlined under broad headings of policy and legislation, species and habitat, monitoring and research, public awareness and training.

The plan was developed by representatives of stakeholder groups that included governmental and non-governmental organisations as well as academic and research institutions from the species' range states. These and other important stakeholders are assigned roles and responsibilities in the implementation of the various projects and activities in the plan that will not only benefit the conservation of the Spotted Ground Thrush but other forest and woodland biodiversity of its range.

Under the umbrella of the African Species Working Group, an International Spotted Ground Thrush Interest Group was formed, coordinated regionally by the International Species Action Plan Coordinator (ISAPC) and at national level by National Species Action Plan Coordinators (NSAPCs) or national focal points. The ISAPC working in conjunction with the NSAPCs and focal points is expected to play an important role in the overall implementation of the plan. Other stakeholders and interested institutions are invited to implement this plan. They may contact the ISAPC or the BirdLife International Africa Partnership Secretariat for involvement. Various opportunities and on-going projects that may assist successful implementation of the plan exist within the range states. However, there are also risks that may hamper implementation and which should therefore be monitored closely.

The process of developing this plan was participatory and interactive, and also served to provide a training opportunity for the participants to develop their skills in species conservation approaches. The skills and experience gained will enable them to train others and produce other priority Species Action Plans at national or international levels. The involvement of government representatives will stimulate the production of the relevant priority national plans and facilitate the process of incorporating species conservation into national biodiversity conservation frameworks in different countries.

1 Introduction

1.1 A Species Action Plan for Spotted Ground Thrush

Spotted Ground Thrush *Zoothera guttata* is an endemic resident and intra-African migrant. It is generally rare but fairly common at very few localities. This enigmatic species is classified as endangered, since it has a very small and severely fragmented area of occupancy, throughout which its woodland habitat continues to be degraded and destroyed (BirdLife International, 2000; 2004). In consequence, its very small population is inferred to be undergoing a continuous decline. The apparent continued decline in the species' population throughout its entire range necessitates urgent interventions, both at regional and local levels. This Action Plan provides a framework to promote the conservation of the species through regional collaboration.

Since Spotted Ground Thrush is found in small and isolated populations, and is a partial migrant, it may not benefit fully from site-based conservation action like the Important Bird Area approach. Fortunately, all the Spotted Ground Thrush range states are signatories to the Convention on Biological Diversity and several articles under this convention, particularly Article 8k, oblige member states to promote the recovery of threatened species through the development and implementation of Species Action Plans. This situation presents an opportunity for initiating a combined regional effort to address the conservation needs of this species and to build capacity in species action planning across the range states.

1.2 Methodology

This International Action Plan was produced at an international stakeholder workshop using a process and format developed by the BirdLife International Africa Partnership and RSPB (BirdLife International, 2001). The workshop process involves four main steps.

1 Presentation and discussion of background information in order to identify gaps in knowledge on the species and capture new information.
2 A thorough analysis of the threats to the species and the relationship between the threats using the problem tree development approach.
3 Use of the agreed threats, their interrelationship and differing priorities to draft mitigating interventions.
4 Development and agreement on a monitoring and evaluation plan

Further details can be obtained from a Training Manual developed during the project (Sande et al, 2004).

1.3 Geographical Scope

This action plan addresses the conservation needs of the Spotted Ground Thrush in its confirmed range states (Democratic Republic of Congo, Kenya, Malawi, Mozambique, South Africa, Sudan and Tanzania).

2 Background information

2.1 Taxonomy

Class: Aves
Order: Passeriformes
Family: Turdidae
Genus: *Zoothera*
Species: *guttata*
Species name author: Vigors (1831)
Taxonomic sources: Dowsett and Forbes-Watson (1993), Sibley and Monroe (1990, 1993)
Synonyms: *Turdus fischeri* Collar and Andrew (1988), *Zoothera fischeri* Dowsett and Forbes-Watson (1993)

The classification of *Zoothera guttata* and related African thrushes, has been a controversial issue for many years, and has been discussed in detail by Harebottle (1994). In the latest taxonomic revision of the birds of the world by Sibley and Monroe (1990; 1993), *Z. guttata* is among the 37 thrushes included in the genus *Zoothera*, of which nine are African.

Five races of *Zoothera guttata* are described, all existing in isolated patches of moist evergreen forest (Dean et al., 1992). Two are migratory coastal races, one (*Z. g. fischeri*) in Kenya and Tanzania, and the other (*Z. g. guttata*) in South Africa. A resident race (*belcheri*) is found in Malawi, and two other races are known from single specimens in Sudan (*maxis*) and Democratic Republic of Congo (*lippensi*).

The separation of the five races is based on morphological differences only. After re-examining the specimen of *Z. g. lippensi* initially collected by H. Wille in 1973, Prigogine and Loutte (1984) found it to differ enough from other races to deserve a separate name. It differed from *guttata, fischeri,* and *belcheri* in being decidedly olive-greyish in colour dorsally, whereas the other races are more brownish-rufous. The longest under-tail coverts have an orange-buff colour, as in maxis. They are pure white in the other races. Benson (1950) described and proposed the naming of *belcheri* as a new race after noting striking differences between it and South African specimens. He described it as similar to *guttata*, but differing in having the abdomen and flanks more intensily white, without any buffy tinge, and the spotting thereon more intensely black. Also the upper mandible and the tip of the lower mandible are black, rather than horn-brown; perhaps also somewhat smaller. *Z. g. maxis* differs from other races in its darker and browner upperparts (Nikolaus, 1982).

2.2 Distribution and population status

Spotted Ground Thrush has a wide but discontinuous distribution (BirdLife International, 2001; 2004). The population estimates of the species in the respective range states and different sites in this document are given as provided by the action planning workshop participants to the best of their knowledge or approximation (Tables 1 and 2). *Z. g. maxis* and *Z. g. lippensi* are known only from a single specimen each and thus have their distributions restricted to their type localities. *Z. g. maxis* is only known from Imatong mountains of Sudan, south-east of Juba on the Ugandan border. *Z. g. lippensi* is known only from the Upemba National Park in DRC where it is certainly a rare bird, perhaps only a visitor, confined to the montane forest (Prigogine and Loutte, 1984). The single specimen collected was a female adult sighted at Lusinga Island at 1750 m above sea level.

Z. g. guttata is an altitudinal and coastal migrant endemic to South Africa, and is limited to the eastern coastal forest belt ranging from the Buffalo River at East London in the south to Lake St Lucia in the

North (Barnes, 2000). It has also recently been recorded in southern Mozambique (J. Curverwell). Density of *Z. g. guttata* in Dlinza Forest, a breeding locality in northern KwaZulu-Natal, South Africa, ranges from 3.4-4.1 birds/ha (H. Chittenden in litt).

Z. g. fischeri is migratory, with its breeding ground occurring in some of the Tanzanian coastal forests. Its breeding grounds were unknown for a long time until in the 1990s when birds with brood patches were caught in the forest on the Rondo Plateau in Southern Tanzania. There may be other breeding populations in northern Mozambique, where there has been little ornithological exploration (Bennun 1992). It is known only as a non-breeding visitor to coastal Kenya and north eastern Tanzania from Lamu to Pugu Hills between late March and November (Baker and Baker, 1992; Bennun, 1992; Dean *et al.*, 1992). Its preferred habitat seems to be a few tiny patches of thick coastal forest on coral rag soil, where it has in the past been recorded at high densities (Bennun, 1985). However, they are also known to be present at very low densities throughout the Arabuko-Sokoke Forest. Because coral rag forest patches are so small, Arabuko-Sokoke still probably holds the bulk of the non-breeding population (Bennun, 1992). In fact recent studies (Ndang'ang'a *et al.*, 2004) suggest that the bird is no longer numerous in Kenyan forests on coral rag at Diani, Shimoni and Gede Ruins, where in the 1970s it had been noted to be numerous (Irvine and Irvine, 1977 a & b; Britton and Rathbun, 1978). This trend could imply that it might also have been lost in other localities.

Z. g. belcheri is found in montane forests of southern Malawi where it occurs as a small isolated population. Initially it was only known from Soche Mountain and considered possibly extinct when first described (Benson, 1950). No later than 1951, the species was collected at the Thyolo Mountain (Benson, 1952), and further work confirmed that *belcheri* was not extinct. During extensive fieldwork done in the 1980s, in addition to Soche and Thyolo Mountains where the bird was still seen, it was discovered at two more localities in 1983, i.e. Mount Mulanje Forest Reserve in the southern region and Lisau Saddle (Dowsett-Lemaire, 1989). Sightings then suggested the total numbers in Malawi to be very low, possibly in the order of 30-40 pairs. Soche Mountain Forest Reserve (on the edge of the city of Blantyre) is important for the species. Though not recorded, *belcheri* could occur in the mid-altitude forest on Chikala, which is part of Liwonde Hills Forest Reserve as it is known from similar habitat and altitude elsewhere in southern Malawi. Based on habitat requirements of the species, it should also be expected on mountains in Mozambique adjacent to Malawi, especially Chiperone and Namuli (F. Dowsett-Lemaire, pers comm.).

In the past, when patches of coastal forest were larger, more numerous, and near-continuous, Spotted Ground Thrushes must have been more abundant than at present (Barnes, 2000). Forest degradation and alteration has undoubtedly led to reduced habitat availability and a subsequent decline in the population size. Limited data from irregular and infrequent records have prevented an accurate population estimate from being made. The global population had previously been estimated at 2000-4000 individuals (Collar and Stuart, 1985), but recent estimates suggest a decreasing population of 1000-2499 individuals covering an estimated range of 35,000 km2 (BirdLife International, 2004). Both *fischeri* and *belcheri*, estimated at 50-100 individuals by Collar and Stuart (1985), have significantly larger populations than both *maxis* and *lippensi* together. However, *fischeri* may be more numerous than past records indicate. *Z. g. guttata* has the largest known population of the five races – estimated at 400-800 pairs in South Africa (Harebottle, 1994). Given the general lack of information about the species, there is a need to survey potential additional areas of occupancy, e.g. northern Mozambique, northern Uganda and northeastern DRC.

2.3 Movements

Only two races of the species, both of them coastal, are migratory. One is *Z. g. fischeri* in Kenya, Tanzania, and probably Mozambique, and the other (*Z. g. guttata*) in South Africa.

Movements of *Z. g. guttata* are described by Berruti *et al* (1994) and Barnes (2000). In summer *Z. g. guttata* breeds in Eastern Cape and southern KwaZulu-Natal, with smaller breeding populations in northern KwaZulu-Natal. he extent and direction of winter migration in the northern populations of Spotted Ground Thrush breeding in Zululand are still poorly understood. However, there is evidence of altitudinal migration for these populations, with some birds spending the winter at coastal forests along the KwaZulu-Natal north coast. Not all birds move altitudinally to the coast with some birds remaining at the breeding grounds. This wintering population is probably wholly contained within KwaZulu-Natal. A large proportion of the southern breeding populations undertake a littoral migration northwards and spend the non-breeding season in central coastal KwaZulu-Natal. Past and new evidence clearly shows an influx of Spotted Ground Thrushes into KwaZulu-Natal during winter, suggesting that birds move in from their southern breeding grounds for the non-breeding season. A mixing of southern and northern breeding birds presumably takes place at coastal localities in KwaZulu-Natal during winter. However, all these movements are yet to be fully understood.

Movements of *Z. g. fischeri* are not well understood. It shows an altitudinal winter migration to the coast. In Kenya the birds are present only from around late March to November, and there is no evidence that they breed in that country. Until recently their breeding grounds were unknown, but birds with brood patches have been caught recently in forest on the Rondo Plateau in the extreme southern Tanzania. There may be other breeding populations in northern Mozambique, where there has been little ornithological exploration (Bennun 1992).

It is argued that in the evolutionary past, the bird was more widely distributed under more favourable environmental conditions, and the species showed more extensive migrations (Berruti *et al*. 1997). *Z. g. guttata* has suffered evolutionary range contraction, and does not migrate further north than KwaZulu-Natal because of its presently restricted population and range. However, there is no evidence to suggest that it might not migrate, and perhaps the southern Mozambique records represent migratory birds from South Africa (D. Harebottle pers. com).

Some altitudinal movements have been indicated for *belcheri* (Dowsett-Lemaire 1989) due to some sightings of the birds in August at the foot of Mt Mulanje.

There is a likelihood that *Z. guttata* moves in response to changes in temperature or other climatic factors.

2.4 Protection status and relationship with other Species Action Plans and biodiversity strategies

Most of the range countries of *Z. guttata* are party to a number of international conventions and agreements whose implementation are to the advantage of the conservation of the species (Table 3). In fact the species is listed in Appendix II of CMS. In KwaZulu Natal (South Africa), 22 provincial nature and forest reserves include suitable habitat, but funding is being reduced and many are no longer patrolled. In Malawi, all sites are Forest Reserves, but this confers little protection. Blue Swallow *Hirundo atrocaerulea* a species for which an International Action Plan has also been made under ASWG shares some IBAs with the Spotted Ground Thrush. These include Upemba National Park in DRC and Mount Mulanje in Malawi. As such, some of the actions proposed in the Blue Swallow and Spotted Ground Thrush Action Plans may complement each other at those sites. In Kenya, there is a project aiming to conserve wintering habitat at Arabuko-Sokoke Forest through sustainable use, but not in other forests where the species is found. The forest is also protected by the Forests Act and there is currently an MoU between KWS and Forest Department on management of several forests in Kenya.

Table 1: Population, distribution and seasonal occurrence of Spotted Ground Thrush

Country	Race	Population*	Distribution	Population trend*	Breeding/non breeding range	Seasonal occurrence	Notes
South Africa	*guttata*	400 – 800 pairs					
			Eastern Cape	?	Breeding and non-breeding	Migratory	Extrapolation from Harebottle (1994)
			Kwa-Zulu Natal	Stable (B)	Breeding and non-breeding	?	
Mozambique	*guttata fischeri?, belcheri?,*	>1	Southern Mozambique, Northern Mozambique?, mountains adjacent to Malawi(Chiperone and Namuli)?	Decreasing (C)	?	?	
Malawi	*belcheri*	30-40 pairs					
			Soche Mountain	Decreasing (B)	Breeding	Resident (Migration to KZN Coast ??)	Renewed deforestation 2002
			Mulanje Mountain	?	?	?	Encroachment, deforestation, bush fires and the spread of exotics
			Thyolo Mountain	?	?	?	Deforestation by local people
			Liwonde Hills	?	?	?	Mainly intact; little information is known about individual sites therefore further research is required
Kenya	*fischeri*	±200 pairs (same population as Tanzania)	Coastal forests	Decreasing (A)	Non-breeding	Visitors. Movement pattern is unknown	Conservation of Arabuko-Sokoke FR set to improve due to stakeholder involvement

Tanzania	*fischeri*	±200 pairs (C)#					
			Southern Tanzania coast e.g. Rondo Plateau	Decreasing? (C)	Breeding	Migratory	Rondo Plateau is the only known breeding site in East Africa
			North-eastern Tanzania forests (e.g Dondwe; Kisarawe)	Decreasing? (C)	non-breeding	Migratory (on passage)	
DRC	*lippensi*	>1	Upemba National Park	?	?	? (captured in October)	There is very little information about population, distribution, breeding and movements.· More surveys are needed in neighbouring montane forests (> 1500 m)
Sudan	*maxis*	>1	Imatong Mountains	?	?	?	Only one known record

***Quality code according to the World Bird Database; A = reliable, B = incomplete; C = poor; U = unknown)**

#Population for both Kenya and Tanzania

Table 2: Local distribution, numbers & protected area status of Spotted Ground Thrush sites within range states: K=Known, P=Potential sites

Key: NP = National Park; WHS = World Heritage Site, NR = national reserve, GR= game reserve, FR=forest reserve, NM=national monument

Country	Region/Province	Site (IBA Code1)	PA status	No. of Sites	No. of pairs	References	Notes
DRC	Katanga Region	Upemba National Park (CD017)	NP	I (K)	?	1 Lippens & Wille (1976) 2 Prigogine (1985) 3 Verheyen (1953)	
South Africa	Eastern Cape	Mkambati NR (ZA066)	Provincial NR	1 (K)	At least 2	Harebottle (1994) Barnes (2000)	
		Dwesa NR (ZA068)	Provincial NR	1 (K)	At least 5	Harebottle (1994) Barnes (2000)	
		Cwebe NR (ZA068)	Provincial NR	1 (K)	At least 5	Harebottle (1994) Barnes (2000)	
		Egossa Forest	State forest (DWAF)	1 (K)	Minimum 1?	Harebottle (1994) Barnes (2000)	
		Mtambalala forest	State forest (DWAF)	1 (K)	Minimum 1?	Harebottle (1994)Barnes (2000)	
		Manubi forest	State forest (DWAF)	1 (K)	Minimum 1?	Harebottle (1994) Barnes (2000)	
		Wave crest	Private	1 (K)	Minimum 1?	Harebottle (1994) Barnes (2000)	
	KwaZulu-Natal (KZN)	Umtamvuna NR (ZA065)	Provincial NR	1 (K)	< 5 indiv.	Harebottle (1994) Barnes (2000)	No evidence of breeding
		Oribi Gorge (ZA064)	Provincial NR	1 (K)	~ 2 pairs	Harebottle (1994)	Breeding?
		Umdoni Park	Municipal ?	1 (K)	4–5 Indiv.	Harebottle (1994) SA Bird net	
		Vernon Crookes NR	Provincial NR	1 (K)	1–2 Indiv.	Harebottle (1994)	
		Kenneth Stainbank NR	Provincial NR	1 (K)	4–5 Indiv.	Harebottle (1994)	
		Pigeon Valley	Municipal	1 (K)	4–5 Indiv.	Harebottle (1994)	
		Umhlanga Lagoon	Provincial NR	1 (K)	4–5 Indiv.	Harebottle (1994) & SA Birdnet	

		Umhlanga Conservancy	Private	1 (K)	1–2 Indiv.	SA Birdnet	
		Zinkwazi Resort	Private	1 (K)	4–6 Indiv.	Harebottle (1994) & SA Birdnet	
		Umlalazi NR (ZA047)	Provincial NR	1 (K)	4–5 Indiv	Harebottle (1994) & SA Birdnet	
		Umvoti Estuary (SA 073)	Private NHS	1 (K)	2–3 Indiv.	Barnes (2000)	
		Mapelane NR	Provincial NR (WHS)	1 (K)	2–3 Indiv.	Harebottle (1994) SWBC in Litt.	GSLWP
		Eastern Shores Lake St. Lucia (ZA044)	Provincial NR (WHS)	1 (K)	2–3 Indiv.	Harebottle (1994)	GSLWP
		Sodwana state forest	Provincial NR (WHS)	1 (P)	?		GSLWP
		Dukuduku State Forest	State forest (DWAF)	1 (P)	Minimum 1	Harebottle (1994)	
		Ngoye Forest (ZA049)	Provincial NR	1 (K)	70–100 Breeding pairs?	Barnes (2000)	
		Dhlinza Forest (ZA051)	Provincial NR	1 (K)	20–25 pairs	H. Chittenden (in Litt.)	
		Entumeni NR (ZA066)	Provincial NR	1 (K)	20–30 pairs	H. Chittenden (in Litt.) & Barnes (2000)	
Kenya	Coast	Gede Ruins (KE 011)	NM	1 (K)	25 (1 bird seen in the last five years)	Bennun (1985, 1992, 1999), C. Jackson (pers com)	
		Arabuko-Sokoke Forest (KE 007)	Forest NR & NP	1 (K)	100	Bennun (1985, 1992, 1999)	

		Diani Forests (KE 009)	Private; NM	1 (K)	10	Bennun (1985, 1992, 1999); Irvine and Irvine (1977 a & b), Britton and Rathbun (1978)	
		Shimoni	Private	P	5	Britton and Rathbun (1978)	
		Kaya Gandini (KE012)	NM	1 (K)	10	Bennun (1985, 1992, 1999)	
		Kaya Waa (KE013)	NM	1 (K)	5	Bennun (1985, 1992, 1999)	
		Mrima Hills Forest (KE018)	FR, NM	1 (K)	5	Bennun (1985, 1992, 1999)	
		Shimba Hills (KE020)	NR, FR, Community sanctuary	1 (K)	10	Bennun (1985, 1992, 1999), Bennun and Waiyaki (1992); Waiyaki and Bennun (2000)	
Tanzania	Lindi	Rondo Plateau (part of Lindi District coastal forests IBA - TZ051)	FR	3 (K)	100–200	Holsten *et al*. (1991); Baker & Baker (2002)	Rondo Plateau is the only known breeding site for the East African population. Should be searched in Noto Plateau
	Pwani	Kisarawe District coastal Forests (TZ047)	FR	3 (K)		Baker & Baker (2002)	Regular, but can be rare passage migrant in May
	Dar es Salaam	Pande and Dondwe coastal Forests (TZ049)	GR (Pande), FR	2 (K)		Baker & Baker (2002)	Regular passage migrant

							NB: Though not recorded, the species can be expected to occur on passage in other coastal forests in Bagamoyo Rufiji, Handeni, Kilwa and Pangani Districts of Tanzania.
Malawi	Southern	Soche Mountain (MW017)	FR	1(K)	30–40 pairs (?)	Dowsett-Lemaire (1989), Dowsett – Lemaire *et al* (2001)	NB: Although forest reserve status, is difficult to protect due to close proximity to urban areas
		Mount Mulanje (MW018)	FR & WHS	1(K)		Dowsett – Lemaire (1989), Dowsett – Lemaire *et al* (2001)	Although forest reserve status, is difficult to protect due to close proximity to urban areas
		Thyolo Mountain (MW020)	FR	1(K)		Dowsett – Lemaire (1989), Dowsett – Lemaire *et al* (2001)	Although forest reserve status, is difficult to protect due to close proximity to urban areas
		Liwonde Hills (MW015)	FR	1(P)		Dowsett – Lemaire *et al* (2001)	Not recorded, but could occur as habitat and altitude similar
Mozambique[2]	Maputo	Maputo Special Reserve (MZ001)	NR	1(K)	?	Paker (2001)	Recently discovered
	Zambezia	Mount Namuli (MZ009)	unprotected	1(P)	?	F. Dowsette-Lemaire (pers. com)	Based on habitat requirements, the species could be expected here
	Zambezia	Mount Chiperone (MZ010)	unprotected	1(P)	?	F. Dowsette-Lemaire (pers. com)	Based on habitat requirements, the species could be expected here
Sudan[2]	Eastern Equatoria	Imatong Mountains (SD020)	FR	1(P)	?	Robertson (2001)	Includes only known locality for *Z. g. maxis*

1 Fishpool and Evans (2001)

2 There were no representatives of the range states in the Action Planning workshop. Information is purely based on existing literature.

Figure 1: Map showing distribution of *Z. guttata* (BirdLife International 2004)

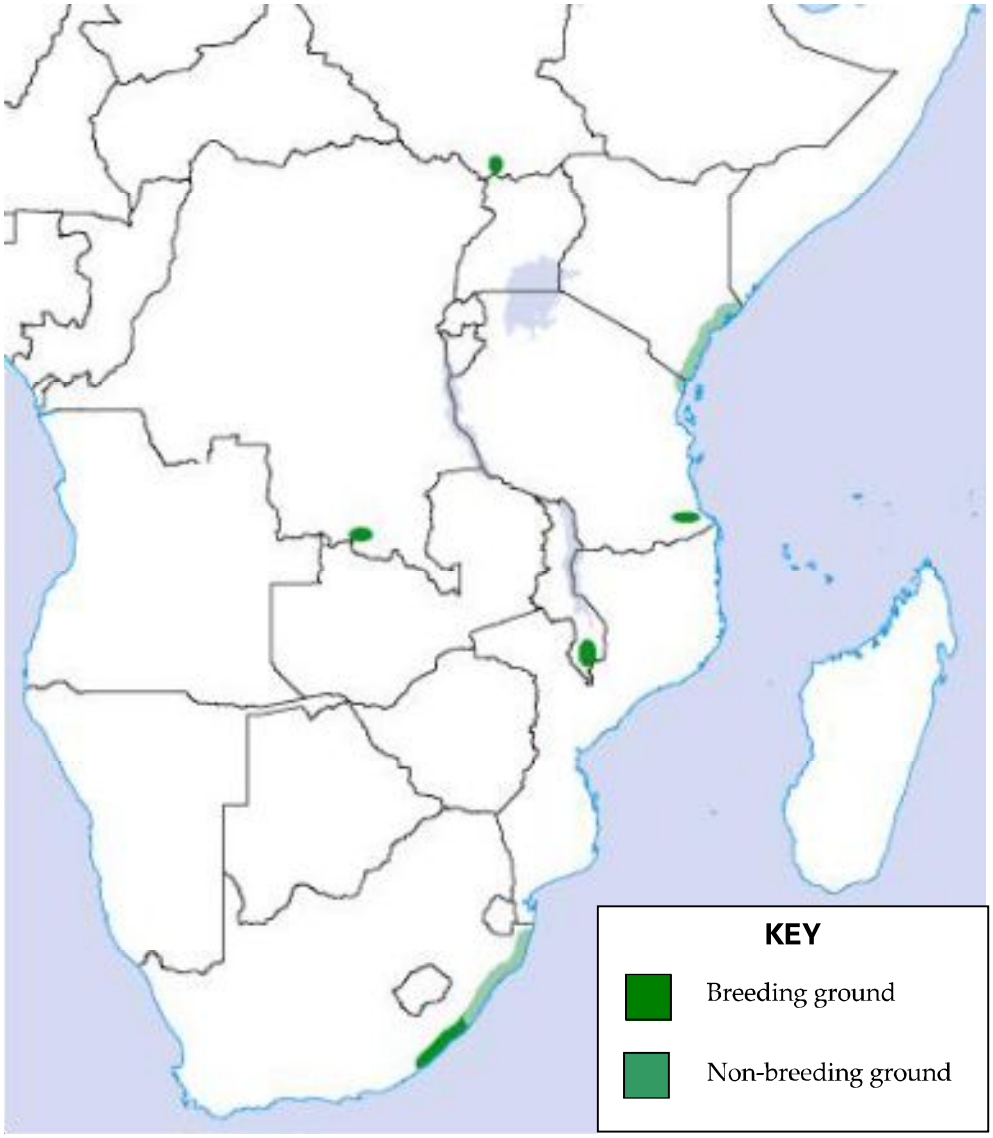


Table 3: National legislation and signatories to international conservation treaties relevant to Spotted Ground Thrush in range states

Country	National legislation	UNESCO (MAB)	AF	WHC	CBD	CMS	Others
South Africa	1 Environmental Conservation Act (protects from: trapping, hunting, transporting) 2 World Heritage Act (ASLWP) 3 KZN Nature Conservation Act/Ordinance 4 Protected Areas Bill	X	X	X	X	X	1 One non-protected IBA 2 9 protected IBAs
Mozambique	?		X	X	X		
Malawi	1 National forestry policy 2 National parks and wildlife policy 3 Genetic resources and biotechnology policy (transfer and use)	X	X	X	X		
Tanzania	1 National wildlife policy 2 Forestry and bee keeping policy 3 Wildlife Act 1974, no. 12	X	X	X	X	X	CITES
Kenya	2.5 Wildlife Act 2.5 Environmental Management and Coordination Act 2.5 Forest Act	X	X	X	X	X	CITES
DRC	Wildlife protected in general	X	X	X	X	X	
Sudan	?	X		X	X		

MAB=Man and Bioshere, AF=African Union, WHC=World Heritage Convention, CBD=Convention of Biological Diversity, CMS=Convention of Migratory Species

2.5 Habitat requirements of Spotted Ground Thrush

Z. guttata inhabits forests of various types (Dean et al. 1992). It occurs in deep shade in a variety of forest-types with deep leaf litter, from dry *Cynometra* thicket in the Arabuko-Sokoke at sea-level (non-breeding birds) to moist evergreen forest at 1200-1700 m in Malawi (BirdLife International, 2000; 2004).

In East Africa, *Z. g. fischeri* it inhabits low altitude moist evergreen forest with nearly complete canopy cover, deep shade, extensive moist, thick leaf litter and sparse undergrowth. It likes areas of low coral vegetation with dead wood and vine tangles for cover when threatened. In Arabuko Sokoke forest it occurs in Afzelia forest and dry *Cynometra* thicket.

Migratory populations may use moist bush and thicket especially *guttata*, which may also winter in coastal dune forest. Otherwise they winter in tall forests at the coast, which for *fischeri*, are preferentially on coral rag. The coral rag forests of Kenya (Gede, Diani and Shimoni) have no thick diverse undergrowth layers characteristic of lowland rainforests of coastal Kenya. This is perhaps why they have high densities of this bird. In Gede they prefer deeply shaded areas with thicker leaf litter and more open understorey, but also utilise adjacent denser undergrowth refuges.

In South Africa *Z. g. guttata* is known to breed in large (>100 ha) patches of mature coastal forest or coastal scarp and valley forests with closed canopy and relatively lower strata (Harebottle, 1994). In the non-breeding season, it can be found in mature coastal and lowland forest, coastal scarp forest, dune forest, secondary growth and occasionally in suburban gardens (Barnes, 2000). The latter are used as stopover points during migration.

2.6 Biology and ecology

2.6.1 Food and feeding

Frequents forest floor and lower branches of leafy trees. Foraging is done in typical thrush fashion, scratching up the leaves and stabbing at discovered prey with the bill. It searches for food on rotting logs and scratches among leaves on ground in deep shade. It also digs in the soil with its heavy bill, flying off to low tree branches when disturbed (Zimmerman *et al*, 1996). Food includes seeds, fruits, insects and their larvae including termites and ants, worms, large (up to 8 cm) and small millipedes especially *Prionopetalum* and land molluscs. Mainly solitary feeding. Avoids bird parties. In Diani Forest, acrimonious behaviour has been observed especially towards other birds while feeding.

2.6.2 General ecology

Avoids disturbance prone areas. Solitary or in pairs, sometimes in small parties on migration. Can be fairly tame. Site fidelity is marked on wintering grounds of *Z. g. fischeri* at Gede, Kenya, where birds appeared to have home ranges (Bennun 1985, 1987). Has a home range of at least 0.14 ha (BirdLife International, 2000).

A home-range study done in a South African forest (Harebottle, 1994) showed that the birds move away from their nesting sites and occupy relatively small areas (4000 m^2) for long periods of time. These areas are used solely for foraging. The establishment of winter territories may be influenced by declines in food availability. Therefore, it seems likely that the birds in that forest 'divide' it into small areas in winter to maximise foraging and in doing so do not limit the population size to any large extent.

2.6.3 Breeding

Monogamous and territorial.
Nest: (*guttata*) heavy bowl of mud, small twigs, leaves, roots, grasses and moss, lined with feathers, fine plant fibres and leaves of creepers, placed 2-3 m above ground in low forest tree; in Ngoye Forest (South Africa) favours *Garcinia gerrardii*; also among lianas, or in bush festooned with creepers; (*belcheri*) bulky oval cup of dark tendrils, on base of thick tendrils, roots and dead leaves.
Eggs: 2-3; oval; greenish blue, heavily blotched with dark red-brown and greenish brown.
Laying dates: Malawi, November; South Africa, September-March.
Nesting sites and breeding success: Breeding areas are confined to purely larger forests, specifically narrow strips on either side of small streams at valley bottoms and at the base of steep adjoining slopes which are densely shaded with the thickest and dampest leaf litter and with only sparse

undergrowth. Breeding success is low and limits any potentially rapid increases in the population size (Barnes, 2000). Nest predation, especially of eggs, contributes nearly 50% of this poor breeding success; snakes (e.g. Boomslang *Dispholidus typus*), raptors (e.g. Gymnogene *Polyboroides typus*) and domestic cats *Felis catus* are the main predators. Spotted Ground Thrush nests are one of the most conspicuous forest bird nests and, coupled with the greenish-blue eggs, afford minimal camouflage. Nestlings are fed mostly earthworms and this dietary preference suggests that breeding habitat may be limited to forests with high summer rainfall (Harebottle, 1994).

2.7 Threats and potential threats

The critical threats and issues of the Spotted Ground Thrush identified through a cause-effect relationship of a problem tree included: low productivity, limited data on distribution and population size, naturally low population, high adult and juvenile mortality, habitat degradation, infrastructural development, limited awareness and economic interest of some stakeholders. All the threats and issues, their relative impact on the conservation of the species (low, medium, high, or critical), their causes in a cause-effect relationship that ultimately lead to the low global population of the Spotted Ground Thrush are shown in the Problem Tree (Annex 1).

2.8 Stakeholder analysis

The main stakeholders that were identified impacting on the species positively or negatively include: government ministries/departments, conservation NGOs, local communities and donors. The detailed analysis on the stakeholders' interests and how their activities impact on the species is shown in Annex 2.

3 Action Programme

3.1 Vision

The vision of this Action Plan is to ensure the long-term survival of a viable population of Spotted Ground Thrush such that it is ultimately removed from the IUCN Red Data List.

3.2 Aim

Within five years this Action Plan aims to improve knowledge on the distribution, conservation biology and status of Spotted Ground Thrush and stabilise its population.

3.3 Objectives

The four objectives that contribute towards achieving the above aim and ultimately to the vision are outlined in Table 4 below.

Table 4: Vision Aim and Objectives

Objectives	Indicators
1 Conservation status of breeding, non-breeding and stop-over sites improved (◆◆◆◆)	• Community based natural resources committees, bird clubs or SSGs formed (one at each SGT key site)· • Increase in number of SGT sightings by 25%· • 80% of the already existing Protected Area SGT key sites accorded effective protection · • Increased population of SGT by 10%· • 60% of the unprotected SGT sites accorded legal protection
2 Natural population dynamics of SGT determined (◆◆◆)	• Annual mortality rates and causes known at 5 sites· • Breeding success known at 5 sites· • Population structure known at 5 sites· • Viability of populations assessed at 5 sites
3 Important breeding, non-breeding and stop-over sites along migration routes determined (◆◆◆◆)	• Map of confirmed, breeding, non-breeding and Stopover sites published in International Journal· • Ringing programmes initiated in at least one site for each of the range states· • Quarterly presentations of migration studies in major media channels (TV, radio, newspapers) in all range states • Significant increase in recovered ringed birds· • Detailed indigenous knowledge surveys carried out and analysed for 50% of known sites
4 An effective international network for conservation of SGT established (◆◆◆)	• International SGT Working Group established and functioning· • All relevant stakeholders in at least five countries have input to coordinated national or local actions· • Action plan implemented in range states· • Productive contact and information flow maintained· • Annual progress reports produced· • A web-based discussion forum in place

3.4 Projects

Project concepts were developed that will be implemented in order to achieve each of the strategic objectives of the Spotted Ground Thrush Action Plan. These concepts and the main attendant activities envisaged are given below:

Objective 1: Conservation status of breeding, non-breeding and stopover sites improved

1 Conservation awareness of Spotted Ground Thrush status and habitat requirements to stakeholder raised (environmental education)
2 Development and implementation of sustainable management plan for key Spotted Ground Thrush sites (e.g. income-generating activities, alternative land for local communities, alternative energy and building sources etc.)
3 Research and monitoring of Spotted Ground Thrush and its habitat requirements
4 Identify the legislation gaps and lobby for appropriate amendments and enforcement with regard to species and habitat (include habitat fragmentation)

5 Reduce illegal activities by 20% in Spotted Ground Thrush key sites

Objective 2: Natural population dynamics of Spotted Ground Thrush determined

1 Determine and monitor population size at breeding and non-breeding sites
2 Determine breeding success and mortality rates in relation to forest habitat types (coastal vs. scarp, disturbed, undisturbed)
3 Improve knowledge on natural history of Spotted Ground Thrush
4 Assess the impacts of ecological factors (e.g. rainfall, predators etc.) on population dynamics at breeding and non-breeding sites
5 Determine adult and juvenile survival rates

Objective 3: Important breeding, non-breeding and stop-over sites along migration routes determined

1 Identify all potential sites both known and unknown for breeding, non-breeding and stop-over
2 Carry out detailed studies of all potential sites to determine population size, status and productivity
3 Conduct appropriate research to determine routes followed during migration
4 Evaluate local indigenous attitudes and knowledge regarding Spotted Ground Thrush for population adjacent to breeding, non-breeding, stopover sites.
5 Conduct awareness campaign about Spotted Ground Thrush studies to achieve big recovery rate of ringed birds
6 Determine and rank importance of sites (non-breeding and stopover sites) based on population size and productivity

Objective 4: An effective international network for conservation of Spotted Ground Thrush established

International level

1 Establish an international working group for the Spotted Ground Thrush involving all relevant countries to coordinate actions

National level

2 Establish a appropriate country specific system of involving all relevant countries to coordinate actions
3 Increase awareness and publicity for the conservation of the Spotted Ground Thrush among stakeholders

Table 5 shows the details of how the specific projects will be implemented i.e., its priority as far as the conservation of the species is concerned, agencies that will take a lead to implement the project, time scale, cost, risks and opportunities that one has to bear in mind.

Table 5: Project table

	Project	Overall Priority[1]	Agencies responsible	Time scale	Cost[2]	Indicators	Risks and opportunities
A	**Policy and Legislation**						
1.4	Identify the legislation gaps and lobby for appropriate amendments and enforcement with regard to species and habitat	◆◆◆	SG Thrush Working Group, BirdLife Partners and other conservation NGOs	2005–2010	$$	Legislation gaps identified in 5/7 countries and amendments in 3/5 countries	Lack of political buy-in or goodwill (R) Willing donors to fund projects (R) Involving government officials in SGT workshop (O)
1.5	Reduce illegal activities by 20% in Spotted Ground Thrush key sites	◆◆	BirdLife Partners and other conservation NGOs	2005–2008	$$		Governments may not cooperate with other SGT stakeholders (R)
B	**Species and habitat**						
1.2	Development and implementation of sustainable management plan for key SGT sites	◆◆◆◆	BirdLife Partners and other conservation NGOs	2005–7 (designing) 2007–10 (implement ation)	$$$	Plan developed in 2 years for key sites Local conservation committees formed Improved habitat status for 80% key sites with plan	Lack of expertise (R) Lack of adequate funding (R)
2.3	Improve knowledge on and natural history of SGT	◆◆	BirdLife Partners and other conservation NGOs	2005–2009	$$	Population structure know-breeding biology known Local community attitudes known General ecology known	Existing cooperation between managers and scientists (O) Security problem (Sudan) (R) Limited expertise (R)
C	**Monitoring & Research**						
1.3	Research and monitoring of SGT and its habitat requirements	◆◆◆◆	BirdLife Partners and other conservation NGOs	2005–2010	$$$	Baseline data provided in 5/7 SGT states in 2 years Habitat requirements for SGT known in 3 years Monitoring of SGT implemented in	Political instability in some range states (R) Lack of adequate expertise (R)

						5/7 range states within year one and on-going	
2.1	Determine and monitor population size at breeding and non-breeding sites	◆◆◆◆	BirdLife Partners and other conservation NGOs	2005–2009	$$$	Population estimate known for 50% of the sites in 5/7 countries Effective standard monitoring system in place	Hostility in species' habitats (Sudan/DRC) (R) On-going monitoring programmes and systems (O) Existing SSGs, etc (O) Limited expertise (R)
2.2	Determine breeding success and mortality rates in relation to forest habitat types	◆◆◆◆	BirdLife Partners and other conservation NGOs	2005–2009	$$$	Breeding success and mortality rates known at sites	Difficulties in finding nests (R) Limited expertise (R)
2.4	Assess the impacts of ecological factors on population dynamics at breeding and non-breeding sites	◆◆◆◆	BirdLife Partners and other conservation NGOs	2005–2009	$$$	List and impact of major factors known	Limited expertise (R)
2.5	Determine adult and juvenile survival rates	◆◆◆◆	BirdLife Partners and other conservation NGOs	2005–2009	$$$	Adult and juvenile survival rates known	Existing SSGs/Bird ringing groups for training (O) ESSGs are currently lacking in some countries (R)
3.1	Identify all potential sites both known and unknown for breeding, non-breeding and stop-over	◆◆◆◆	BirdLife Partners and other conservation NGOs	2005–2006	$$	Distribution map categorising sites (breeding, non-breeding, stop over and level of knowledge)	Remote sensing data analysis (O) Literature available for review Expertise available (O) Overlooking smaller sites (R)
3.2	Carry out detailed studies of all potential sites to determine population size, status and productivity	◆◆◆◆	BirdLife Partners and other conservation NGOs	2006–2008	$$$	Map of each site using population data sets Population size per site Population status per site including seasonality Population productivity	Students/field workers available (O) Inaccessibility of sites-Government support (O) Difficult and time consuming (R)

3.3	Conduct appropriate research to determine routes followed during migration	◆◆	BirdLife Partners and other conservation NGOs	2005–2008	$$$	Map of migration routes-20% of the population ringed per site from 1 site per country in at least 5 countries	Low recovery rates (R) Long time scale required to get significant results (R) Expertise available for training (O) Low number of qualified ringers(R)
3.4	Evaluate local indigenous attitudes and knowledge regarding SGT for population adjacent to breeding, non-breeding, stop-over sites.	◆◆		2005–2006	$$	Data gathered from 50% of sites	Lack of familiarity of species (R) Accessibility (R) Misleading information ® Lack of cooperation (R) Expertise available (O)
3.6	Determine and rank importance of sites based on population size and productivity	◆◆◆		2008–end	$	Sites ranked with supporting data	Expertise available (O) Difficulties in data gathering c.f to 3.2
D	**Public awareness and Training**						
1.1	Conservation awareness of SGT status and habitat requirements to stakeholder raised	◆◆◆◆	BirdLife Partners and other conservation NGOs	2005–2010	$$	Government representation in launching of management plans in 5/7 countries At least one conservation or interest action group formed at SGT key site At least 2 press releases issued in 5/7 range states per year-Govt support for SGT plan in 5/7 range states	On-going conservation projects to contribute (O)
3.5	Conduct awareness campaign about SGT studies to achieve big recovery rate of ringed birds	◆◆		2005–2010	$$	Significant increase in ring recoveries Quarterly media presentations running in 3-4/7 countries	Lack of interest from media to accept presentations (R) Often interest to publicise this kind of information (O)

4.1	International SGT working group formed	◆◆◆◆	ASWG, Nature Kenya	2005–2010	$$	International SGT working group established by 9/5/03 at the latest Productive contact and information flow maintained at least 6 times a year Annual progress reports produced A web-based discussion forum in place	Potential for MoU between SGT range states (O) Building on existing network (O) Use the forum as a foundation for future plans for other species (O) Too much talk, too little action (R) Collaboration among partners increases funding opportunities (O) Different languages in range states (R)
4.2	Establish a appropriate country specific system of involving all relevant countries to coordinate actions	◆◆◆	BirdLife Partners and other conservation NGOs	2006–2010	$	At least 50% of stakeholders in at least 5 countries involved in coordinated national/local actions Productive contact and information flow maintained at least 2 times a year- SGT action plan implemented in at least 5 countries	Building on existing network (O) Use the forum as a foundation for future plans for other species (O) Too much talk, too little action (R) Collaboration among partners increases funding opportunities (O) Not all stakeholders have the same interest and priorities (R)
4.3	Increase awareness and publicity for the conservation of the SGT among stakeholders	◆◆◆◆	BirdLife Partners and other conservation NGOs	2005–2010	$$$	At least 50% of stakeholders in at least 5 countries involved in coordinated national/local actions At least 2 exposures per year in the media for at least 5/7 countries Environmental education programme initiated with at least 1 stakeholder group in at least 5/7 countries Funds raised to initiate at least one country relevant project in each country	Not all stakeholders have the same interest and priorities (R) Raise awareness relating to wider habitats or ecosystems, not only single species (O) Linking with existing network/projects with partners/stakeholders (O)

Priority: ◆=low, ◆◆=medium, ◆◆◆=high, ◆◆◆◆=critical

Cost: $ <US$ 10,000 $$ US$ 10,000-US$50,000 $$$ US$>50,000

4 Monitoring and evaluation

What and why? A monitoring and evaluation plan is needed to determine whether activities are progressing according to the schedule. By obtaining information on the progress made in the implementation of the activities and using this information against the set indicators (Table 5), it will be possible to assess progress of implementation of the plan towards achieving the aim and objectives that were set (Table 4). Monitoring and evaluating progress on a regular basis means that priorities can be assessed and adjusted when required. This also serves as a basis for keeping everyone informed.

Who? It was agreed that the Monitoring and Evaluation (M & E) plan for the Spotted Ground Thrush at international level will be coordinated by the Species Interest Group with the International Spotted Ground Thrush Action Plan Coordinator taking the lead across all range states. The task involves co-ordinating the monitoring and evaluation, and includes financial reporting when appropriate. National Focal Points will take the lead at national level and are expected to involve other important stakeholders, such as conservation NGOs, Government departments, scientific experts and local community representatives. International Conservation NGO should be involved in the M&E process where appropriate and should be encouraged to implement some of the required projects that lie in their areas of competence.

How and how often? Annually (two to three months before the end of the year), the International Spotted Ground Thrush Action Plan Coordinator will circulate a table for monitoring and evaluating implementation of the Spotted Ground Thrush (a derivative of Table 5) with two additional columns, one for completion date and another one for remarks. National Focal Points will provide information on national progress and return the table to the International Co-ordinator before the end of the year. A regional M & E report will be circulated by the International Co-ordinator in the first quarter of the following year

5 Factors influencing success in the implementation of the Spotted Ground Thrush action plan

5.1 On-going projects

On-going conservation projects in respective range states may enhance or complement the implementation on the plan in several ways. This is especially so, if they are aimed at conserving the habitat of Spotted Ground Thrush. Examples include: the Mulanje Mountain Conservation Trust (MMCT) supported by World Bank in Malawi, Conservation of Masanganya Forest (Kisarawe) by IUCN in Tanzania, IBA monitoring project in Kenya supported by Darwin Initiative that covers coastal forests too and the Environmental Education Programme implemented by A Rocha Kenya around Arabuko-Sokoke Forest, Kenya.

5.2 Opportunities and risks

5.2.1 Opportunities

A number of opportunities already exist and can positively contribute towards the implementation of the plan:

- The existence of the plan in itself will promote conservation education and awareness

- Most of the sites where the species is found already have some form of protection, while almost all are IBAs
- The conservation organisations participating in implementing the plan are recognized and taken seriously by governments
- Some legislation and policies that favour conservation of wild birds already exist in the range countries
- There is local community involvement in conservation at some of the Spotted Ground Thrush sites and the number of local people in interested and concerned in bird conservation is rising, e.g. guides. Birding groups and ecotourism activities are already active in some of the sites.
- Existing international and regional networking and cooperation can be used to liaise in implementing the plan
- Many donors are eager to support conservation work
- Compliment on-going conservation work
- There is an increase in the number of professional conservationists concerned with species conservation. Some expertise is therefore available and this provides opportunities for further capacity building
- Peace has been retained in some of the range countries
- Spotted Ground Thrush working groups will be formulated

5.2.2 Risks

A number of risks that relate to the plan already exist and can negatively contribute effective implementation of the plan:

- Expertise in species conservation is not yet enough in all the range states and specialists on Spotted Ground Thrush are still few
- The Spotted Ground Thrush is still poorly understood due to its elusiveness
- Some of the Spotted Ground Thrush sites are privately owned and it is thus hard to control what is done within them
- There is general lack of buy-in and commitment from governments for conservation of 'small' species
- There could be lack of national and local government support for effective implementation of the plan
- Spotted Ground Thrush is not completely protected over its entire migratory route
- In some cases regional and international cooperation lacks, especially especially for conservation of cross-border species
- Funds and resources for implementing proposed actions are limited
- There could be conflicts with existing or on-going programmes and plans
- Some projects in the plan do not provide direct tangible benefits to local communities and may lack local buy-in
- Opportunity costs for implementing actions may be high
- Poverty is high in most places where species is found, and may be directly contributing to increased threats
- Due to insecurity some of the sites are inaccessible and this hinder implementation of projects at the sites
- There could be a possibility of land reform and redistribution programmes affecting key sites for the species in future

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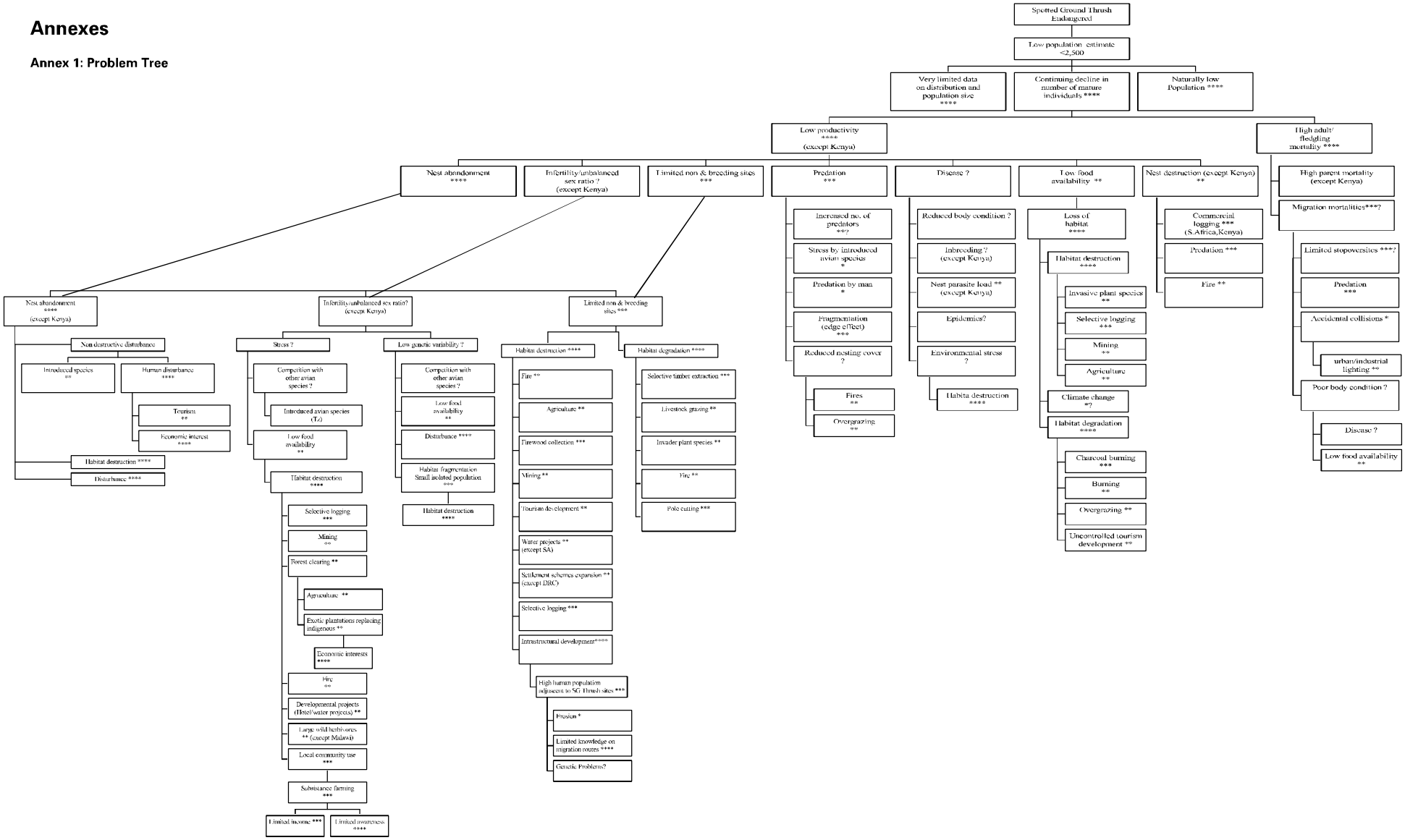
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Annexes

Annex 1: Problem Tree



Annex 2: Stakeholders analysis

Country	Stakeholder	Interest	Activities	Imp.	Int.	Proposed SAP Activities
Malawi	1 Forestry department	Forest management	Proactive management	+	◆◆◆◆	Provide information on location and ecology of SGT
		Revenue generation	Clearing native trees for exotics	-	◆◆◆	
		Biodiveristy conservation	Research	+	◆◆◆	
		CBNRM	Resource management	+	◆◆	Provide advice on management
		Policy	Policy formulation	+	◆◆◆	Advice on conservation
	2 Local communities	Forest resources	Collection of firewood,	_	◆◆	Provide alternatives for firewood like woodlots for alternative energy sources
			Charcoal burning and forest fires	_	◆◆	Civic education in conservation
			Encroachment for agricultural land	_	◆◆◆	
	3 Private estates	Tea growing	Management of forest patches	+	◆◆◆	Encourage estates to continue protection and management of forest patches
			Releasing land to farm workers to grow crops	_	◆◆◆	Encourage estates to continue protection and management of forest patches
	4 Tour operators	Income from tourism	Guided tours	_	◆	Provide information on location to avoid disturbance
	5 MMCT	Conservation	Development projects	+	◆◆◆	
		Tourism	Awareness	+	◆◆◆	
		Research	Research	+	◆◆	Information on SGT, awareness, CBNRM
			Coordination with other stakeholders such as forest department, estates, tour operators, local communities	+	◆◆◆	
	6 Timber companies	Income	Timber sawing	+	◆◆◆	Provide information on location to avoid disturbance

	7 Mining companies	Income	Exportation of bauxite	+	◆◆	If proposals materialise, give advice on location of SGT and ecology
	8 Wildlife and Environmental Society (WESM)	Biodiversity conservation	Environmental education and natural resource management (CBNRM)	+	◆◆◆	Liaise with other stakeholders in conservation Provide advice on CBNRM and IGAs Environmental education through wildlife clubs
	9 National Museums of Malawi	Biodiversity conservation	Research	+	◆◆◆	Gathering information on bird location
	10 Birdwatchers	Watching birds	Locating bird species	+	◆◆	Coordination of efforts with other stakeholders Gathering data
	11 International donors such as World Bank	Development and biodiversity conservation	Funding project	+/-	◆◆◆/◆◆◆	Seeking funding for projects Advice on location and ecology of SGT
	12 International Tour Operators	Income	Bird watching through guided tours	+/-	◆◆◆/◆◆◆	Liaising to give and receive information on SGT
DRC	1 Ministry of Environment (Park Authority)	Sustainable management of national reserves	Planning	+	◆◆	Awareness
			Law enforcement	+	◆◆	Financial support
			Policy	+	◆◆	Lobbying for political stability
			Legislation	+	◆◆	Networking
	2 Ministry of Education and Research	Capacity building	Training	+	◆◆◆	Reform (curricula)
		Scientific information for decision makers	Data management	+	◆◆	Integrated training
			Scientific results and information dissemination	+	◆◆	Awareness- support (equipment)- network
	3 Donors	Sustainable management development	Funding technical assistance	++	◆◆	Fundraising and awareness

	4 Local communities	Income	Agriculture	-	◆◆◆	Alternative sources of income
		Welfare	Mining	-	◆◆	Awareness
			Hunting	-	◆	
	5 NGOs (OBICOK, etc)	Conservation	Public awareness	+	◆	Capacity building
		Development	Consultancy	+	◆	Funding
			Implementation of development of projects	+	◆	Species awareness
	6 Mining, logging companies	Income	Prospection	-	◆◆	Awareness
			Mining and logging	-	◆	Environmental impact assessment
	7 International NGOs					
	ICF (SCWG)	Conservation (*Grus carunculatus*)	Surveys	+ ?	◆?	Network with OBICOK, ASWG-Coordination, harmonizationship
		Research				
	MIKE	Protection of the elephant	Monitoring	+	◆◆	Partnership
	Nouvelles Approaches	Conservation	Environmental education	+	◆◆	Partnership
		Development	Development projects	+	◆◆	Partnership
			IGAs	+	◆◆	Increased funding
						Fundraising
Tanzania	1 Forest and Beekeeping Division (FBD)	Biodiversity conservation	Management of forest reserves	+	◆◆◆◆	Reinforcement of legislations
		Revenue collection	Tax collection from timber	+	◆◆	Retention scheme for conservation activities
	2 Wildlife Division (WD)	Biodiversity conservation	Management of wildlife hunting	+	◆◆◆◆	Retention scheme for conservation activities
		Revenue collection	Management of FRs and GRs	+	◆◆	Retention scheme for conservation activities
	3 TANAPA	Biodiversity conservation	Strict protection	+	◆◆◆◆	Conservation awareness on SGT
		Revenue collection	Tourism	-	◆	Fundraising for conservation activities
	4 TAWIRI & TAFORI	Conservation	Research	+		Disseminate reliable information

	5 Local communities-	Natural resource utilisation	Agriculture	-	◆◆◆◆	Awareness Provision of more land
			Fuel wood collection	-	◆◆◆	Alternative source of power Use of improved stove Establishment of village woodlots
			Pit sawing	-	◆◆	Provision of alternative sources of income Woodlots
			Building materials	-	◆◆◆	woodlots Use of alternative building materials such as baked bricks
			Collection of medicinal plants	-	◆	Controlled and sustainable use of medicinal plants
	6 WAHEPUKA & WAWAKI Community organization	Conservation	Create awareness- forest protection	+	◆◆◆	Awareness focusing on SGT Involve economic activities in their conservation programs
	7 DANIDA	Conservation of biodiversity	Support of small income generating projects (IGP) at Masanganya forest Funding of biodiversity surveys in Coastal forests	+	◆◆◆	Funding of the SGT survey and avifauna
	8 SSNC	Conservation of biodiversity	Funding conservation awareness projects in coastal forests	+	◆◆◆	Funding awareness projects focussing on the SGT
	9 CARE Tanzania	Conservation	Support of environmentally friendly income generating activities for the communities around Pugu and Kazi Mzumbwi coastal forests-Conservation awareness	+	◆◆◆	Funding of the SGT survey in these forests (Pugu and Kazimzumbwi)
	10 Birdlife International	Conservation of biodiversity	Conservation of IBAs	+	◆◆◆	Monitoring of SGT

	11 NINA (Norwegian Institute for Nature)	Conservation of biodiversity	Funding of human wildlife interaction projects (fuel woodlots at communities around Zaraninge forest-reserve	+	◆◆◆	Forest conservation
South Africa	1 KZN Wildlife	Biodiversity conservation	PA management	+	◆◆◆◆	Increased awareness (KZW, community, landowner)
			Research and monitoring	+	◆◆	Increased research and monitoring on species and habitat
			Extension work	+	◆◆◆	Implementation plan
			Environmental management	+	◆◆◆	
			Eco-tourism			
			IGA	+	◆◆	
			Disturbance	-		
			Legislation (permits, law enforcement)	+	◆◆◆◆	Include in aslup rare species project
	2 Eastern Cape Conservation	Biodiversity Conservation	Legislation (permits, law enforecement)	+	◆◆◆◆	Include in aslup rare species project
	3 KZN Tourism	IGA and service provision	Tourism promotion (culture and national heritage)	+	◆◆	Increased awareness and promotion of SGT
	4 Eastern cape Tourism	IGA and service provision	Tourism promotion (culture and national heritage)	+	◆◆	Increased awareness and promotion of SGT
	5 DWAF (national and regional)	Indigenous forest and water conservation	Sustainable use programme	+	◆◆?	Increased awareness
		Forest policy	Formulate and enforce legislation	+	◆◆◆◆	
	6 Private forestry(Mondi, Sappi and Safcol)	Community forestry	? (Policy implementation)			
			Plantations	-	?	

	7 Local communities subsistence	Firewood collection	-		◆◆	Promotion of sustainable use & alternatives, awareness of SGT
		Slash and burn agriculture	-		◆◆◆	Promotion of sustainable use & alternatives, awareness of SGT
		Medicinal plants,	-		◆	Promotion of sustainable use & alternatives, awareness of SGT
		Building materials	-		◆◆	Promotion of sustainable use & alternatives, awareness of SGT
		Wood carving	-		◆	Promotion of sustainable use & alternatives, awareness of SGT
	8 Community sugar farmers	IGA	Cane farming	-	◆◆◆	Awareness and enforcement of agriculture and environmental laws
	9 DBN Natural Science Museum	Research and education	Talks and displays	+	◆◆	Further awareness
			Archives	+	◆◆◆◆	Media release (public relations)
			Publications	+	◆◆	Increased monitoring
	10 Tour operators	IGA	Guiding			
			Awareness	+	◆◆	Restrict access to breeding areas
			Disturbance	-	◆	
	11 Universities	Education and research	Scientific research project	+	◆◆◆	Focus more on SGT research (postgraduate degrees)
	12 RBM Other mining companies	IGA	Prospecting and mining	+	◆◆◆◆	More emphasis on rehabilitation & restoration of forest habitats
	13 WESSA	Environmental protection	'Watchdogs'	+	◆◆◆◆	Maintenance of programmes
	14 BirdLife South Africa (branches)	Bird conservation	Bird guide training	+	◆◆	Increased awareness
			IBA and species conservation	+	◆◆◆◆	
			Environmental education	+	◆◆◆	
			Promoting birding	+	◆◆◆	
	15 Local municipalities	Town management	MOSS	+	◆◆	Raising awareness
			Maintaining green areas	+	◆◆	Promote indigenous gardening

	16 Bird Clubs (Independed)	Birding	Outings	+	◆◆	Increased awareness amongst bird clubs
			Talks	+	◆◆◆	
			Newsletters	+	◆◆◆	
Kenya	1 Kenya Wildlife Services	- Biodiversity conservation	Protection	+/-	◆◆◆◆/◆◆	Focused protection for SGT and its habitat
			Tourism development	+/-	◆◆/◆	Site appropriate eco-tourism
			Partnership	+	◆◆◆	Strengthen partnerships
			Environmental awareness	+	◆◆◆	Raise profile of SGT & plan
			Research and monitoring	+	◆◆	Generate more ecological information on SGT
			Fundraising for SGT	+	◆	Fundraise for plan implementation
	2 Forest department	Forest management	Protection	+	◆◆◆◆	Intensify protection of indigenous forest
			Commercial exploitation	-	◆	Enforce ban on logging of indigenous trees
			Partnerships	+/-	◆◆	Proper management of partnerships
			Tree planting	+/-	◆◆	Promote enrichment planting
	3 National Museums of Kenya	Preserve national heritage	Preservation and protection of sites	+	◆◆◆◆	Enforce protection of lower profiled sites
		Research	Applied conservation research of biodiversity	+	◆◆◆	More research and monitoring
		Education and awareness	Information dissemination	+	◆	Promote awareness of SGT & plan
		Tourism	Promotion of visitors to sites	+/-	◆/◆	Promote awareness of SGT & plan & minimize disturbance to habitat

	4	Community including FADA, ASFGA and Kipepeo	Utilization and protection	Firewood collection	-	◆◆	Promote sustainable use practices and implementation of plan
				Grazing	-	◆◆	
				Poles	-	◆◆	
				Honey	-	◆/◆◆◆	
				Medicine	+/-	◆◆	
				Cultural practises	+	◆◆◆◆	
				Conservation (tree planting)	+	◆◆	
				Awareness	+	◆◆	
				Agriculture	-	◆	
				Butterfly farming	+	◆◆◆	
	5	International NGOs, BirdLife International, BCP, NABU, KNH, Darwin Initiative, The RSPB	Biodiversity conservation Development	Fundraising, ecotourism, social development projects, advocacy, training			

Imp.=Impact of activities =positive or negative,

Int=Intensity of the impact; ◆= Low, ◆◆=Medium, ◆◆◆= High,◆◆◆◆=Critical