

**Zambian Blue Swallow Action Plan**  
**Zambian Blue Swallow Action Plan Stakeholder Workshop**

**07 – 08 June 2002, Zambia**

Sponsored by:

DEFRA - Darwin Initiative  
Royal Society for the Protection of Birds

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In partnership with: Zambian Ornithological Society and BirdLife South Africa

Workshop facilitator: Steven W. Evans (BirdLife South Africa).

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## 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 organisations 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 designation, 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 under the Darwin Initiative for the Survival of Species and with financial and technical support from the Royal Society for the Protection of Birds (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 7 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.

## **Executive Summary and Recommendations.**

The Blue Swallow *Hirundo atrocaerulea* is considered globally Vulnerable with fewer than 1500 pairs remaining in suitable grassland habitats in east and southern Africa. The South African Blue Swallow population is considered to be Critically Endangered with fewer than 100 breeding pairs. A conservation plan compiled by all relevant stakeholders outlining the priority actions needed to conserve this species was therefore urgently needed.

The Africa Blue Swallow Working Group of the BirdLife International Africa Partnership, the Blue Swallow Working Group of the Endangered Wildlife Trust, in partnership with BirdLife South Africa, coordinates conservation action aimed at conserving and increasing the Blue Swallow population throughout its east and southern Africa distribution range by promoting the sustainable utilisation of its grassland and wetland habitats, for the benefit of people and their environment. The Zambian Ornithological Society is taking the lead in Zambia.

The Zambian Ornithological Society hosted a Species Action Planning stakeholder workshop in June 2003 in order to assess the threats facing the White-winged Flufftail in South Africa, and to prioritise actions to improve the survival chances of this species. The workshop was attended by 16 participants representing a wide range of stakeholder groups in the key Blue Swallow site in Zambia. The workshop was facilitated by BirdLife South Africa and used a species action planning workshop process developed by the BirdLife International Africa Partnership. Funding was provided by the UK Darwin Initiative for the conservation of species and RSPB.

The species action planning stakeholder workshop process comprised a series of plenary and working group sessions in which working groups worked through tasks designed to facilitate everyone contributing their ideas, free thinking, brainstorming, discussion and debate, tackling of issues and finally, consensus building and project development.

Loss of its specialised wetland habitat and disturbance to the birds could seriously affect the Blue Swallow's status on the Nyika. These aspects will be closely monitored during the plan period.

The workshop concluded that the aim of the action plan would be that the Blue Swallow is in Zambia with a stable population and no further decline in its habitat quantity or quality by the end of 2006.

In order to achieve this aim the representatives agreed on the following objectives:

- Reduced harmful human impact on the Blue Swallow by the end of 2006.
- Reduce rate of decline of the herbivore population in Nyika NP by the end of 2006.
- Reduced hunting of Aardvark resulting in an increase in the number of Bs breeding sites.
- Improved perception on the international market of Zambia as an avi-tourism destination by end of 2006.
- Establish a central Zambian Blue Swallow Action Group committee representing ZAWA, ZOS, business person, ZNTB and Zambia Crane project.

## **Acronyms/Definition**

BSWG: Blue Swallow Working Group.

CBD: Convention on Biological Diversity.

DFID: Department for International Development (United Kingdom).

DNA testing: Deoxyribonucleic Acid testing

EE: Environmental Education

EIA: Environmental Impact Assessment.

ELAMU:

IBA: Important Bird Areas.

GTZ: Gesellschaft für Technische Zusammenarbeit.

IUCN: The World Conservation Union.

NGO: Non-Governmental Organisation.

NIBACS: National Important Bird Area Conservation Strategies.

SAP: Species Action Plan.

SAG: Species Action Group.

SIG: Species Interest Group.

SWG: Species Working Group.

## **Chapter 1.**

### **What is a *Zambian Blue Swallow Action Plan*?**

An Action Plan to conserve the Blue Swallow in Zambia is a flexible working strategy that identifies and prioritises the problems and proposes practical solutions, specifies certain actions and responsibilities within agreed timeframes, based on specific objectives which are regularly monitored and revised.

### **Why an action plan for the *Blue Swallow Zambia*?**

The Blue Swallow is considered globally threatened with less than 1500 pairs remaining. Zambia and Malawi share, in the Nyika National Park, what is possibly the largest continuous population of Blue Swallows. It is only the Eastern Highlands of Zimbabwe that has comparable numbers of Blue Swallows. In order to conserve these birds on their breeding range in the Nyika Plateau it is important that an action plan is ultimately completed for Malawi as well.

### **Geographic Scope.**

The *Zambian Blue Swallow Action Plan* includes the population of Blue Swallows in the Nyika National Park in Zambia.



## Chapter 2.

### Introduction

The Blue Swallow *Hirundo atrocaerulea* is an intra-African migrant with breeding populations in South Africa, Swaziland, Zimbabwe, Mozambique, Malawi, Zambia, Democratic Republic of Congo and Tanzania (Turner & Rose 1989). From throughout their breeding range the Blue Swallows migrate in the non-breeding season to Uganda, Kenya, DRC and Tanzania (Earle 1987, Oatley 2001). The furthest north that a Blue Swallow has ever been recorded is Kidepo Valley National Park that has its north-western boundary on the border between Uganda and Sudan in the north-eastern part of Uganda (Butchard 1996).

The Blue Swallow is considered to be most closely related to the Black-and-rufous Swallow *Hirundo nigrorufa* (Hall & Moreau 1970; Turner & Rose 1989). The Black-and-rufous Swallow inhabits seasonally flooded grassland in Angola, Democratic Republic of Congo, Zambia and Malawi. The migratory or dispersal behaviour of this species is sparsely documented and unclear (Turner & Rose 1989).

The distribution of the Blue Swallow is fragmented over much of its range. The global Blue Swallow population is classified as Vulnerable under IUCN/BirdLife International threat criteria, and its habitat is disappearing rapidly (Collar et al 1994; BirdLife International 2000). The South Africa (including Swaziland) population is classified as Critically Endangered and the East Africa population (including Uganda, Kenya and Tanzania) is classified as Endangered under East Africa regional red data criteria (Bennun & Njoroge 1996, Evans & Barnes 2000).

### Taxonomic notes.

Class: Aves  
Order: Passeriformes  
Suborder: Passeri (the Oscines)  
Family: Hirundidae  
Genus: *Hirundo*  
Species: *H. atrocaerulea*

Although considered a member of the genus *Hirundo* by most authorities (Maclean 1993; Allan & Earle 1997; Clancey 1985; Turner & Rose 1989), Austin Roberts originally erected the genus *Natalornis* for this species in 1922. It lacks red in the plumage and white spots in the tail feathers. It is the only old world swallow to have sexually dimorphic plumage and it is the only mud-nest building swallow that does not use pellets of mud for building; it lays down layers of premixed mud and straw (Brooke 1984). This suite of features run contrary to its inclusion in *Hirundo*, and this species may be an isolated member of a unique lineage, with added phylogenetic conservation significance. A phylogeny of the swallows would be well placed to elucidate its affinities and taxonomic uniqueness.

### Distribution and Population Status

The Blue Swallow is endemic to sub-Saharan Africa and is an intra-African migrant (Turner & Rose 1989). It breeds in eastern South Africa, north-western Swaziland, eastern Zimbabwe and adjacent Mozambique in Southern Africa (Irwin 1981), see Table 1. In Eastern Africa the Blue Swallow breeds in northern Malawi, north-eastern Zambia, south-eastern Democratic Republic of Congo and south-western Tanzania (Turner & Rose 1989). The birds arrive on their breeding grounds in September to October, and depart again in April (Keith et al. 1992). From throughout their breeding range the Blue Swallows migrate in the non-breeding season to southern Uganda, western Kenya, north-eastern DRC and north-western Tanzania in central Africa but do not breed there (Earle 1987).

In 1998 the total breeding population was estimated to be c. 2000 pairs or 4000 adult birds and declining (BirdLife International 2000). The estimate has subsequently been refined further and the breeding population is currently believed to be c. 1500 pairs or 3000 adult birds and still in decline (Evans *pers comm.*).

The largest breeding populations of Blue Swallows currently in protected areas are Nyanga National Park (580 km<sup>2</sup>) in Zimbabwe (estimate of 200 breeding pairs) and Nyika National Park (3134 km<sup>2</sup> - with ca 1800km<sup>2</sup> of montane habitat) in Malawi (conservative estimate of 260 breeding pairs) (Childs 2001, Holroyd & Quinni in prep.). All other known Blue Swallow populations are small, isolated and many are believed to be close to the minimum for long –term viability.

It is only in Zimbabwe and Malawi that a large proportion of individuals occur within protected areas. In South Africa, Mozambique, Swaziland, Zambia, Tanzania, Democratic Republic of Congo, Kenya and Uganda, existing populations occur almost entirely in unprotected areas (Appendix 1).

Table 1. Population, distribution and seasonal occurrence of Blue Swallow (see Table 2 for more detailed distribution within countries).

Country	Population (plus quality code)	Distribution	Population trend (plus quality code)	Breeding or non-breeding range	Notes
South Africa	2001/2002 data: MP = 26 pairs, KZN = 51 pairs (39 active), LP = 5 pairs (1 active) = Total 82 pairs (66 active). 164 individuals.	Fragmented, patchy and localised within remaining grassland patches along the eastern escarpment.	Decreasing slowly.	Breeding	
Swaziland	20-22 pairs (estimated in Swaziland RDB, in press), 40-50 individuals.	Fragmented, patchy and localised within remaining grassland patches within the north-western highlands.	Decreasing slowly.	Breeding	
Zimbabwe	300 – 400 pairs, 600 - 800 individuals.	Fragmented, patchy and localised within remaining grassland patches along the eastern highlands.	Decreasing slowly.	Breeding	(Childs 2001)
Mozambique	50 – 100 pairs, 100 – 200 individuals.	Birds have not been seen in Mozambique in over 30 years. Espungabera to the headwaters of the Pungwe River (Clancey 1971).	Unknown.	Breeding	More recently, its presence in Mozambique is inferred from birds observed in Zimbabwe very close to the border with Mozambique.
Malawi	300 – 400 pairs, 600 – 800 individuals.	Generally common on highland montane grassland in north and south with some birds on passage at lower	Probably stable.	Breeding	

		altitudes.			
Zambia	10 – 15 pairs, 20 – 30 individuals.	2200 m		Breeding	
Tanzania	300 – 400 pairs, 600 – 800 individuals.	Breeding in the southern highlands. Non-breeding in the seasonally flooded grasslands in the north-west.		Breeding & non-breeding	
DRC	100 – 150 pairs, 200 – 300 individuals.	Fragmented, localized in east. Breeding in south-east highlands (Marungu). Non-breeding in north-east (Lendu).	Unknown	Breeding & non-breeding	
Kenya		Scarce bird recorded from April to September in open grasslands in Lake Victoria basin and peripheral areas in Western Kenya, in particular Bungoma, Mumias and Busia Districts and in Ruma National Park.	Major decline	Non-breeding	A 32 day survey done in 1996 did not record the species, but records of up to 6 individuals per sighting have recently (2000-2001) been made during visits by birdwatchers and ringers to Busia grasslands
Uganda	500 individuals in seasonally flooded grasslands in north western part of L. Victoria.	Recorded in the Busia grasslands.		Non-breeding	
TOTAL	1202 – 1654 pairs, 2404 – 3308 individuals.				

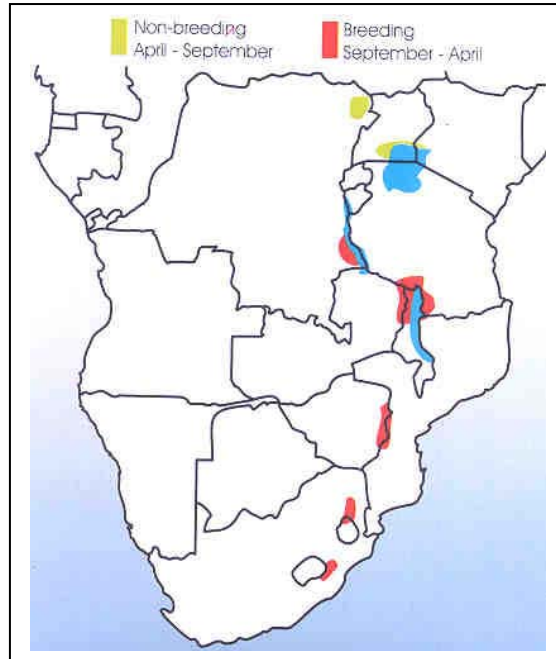


Figure 1. Total Blue Swallow distribution range. Breeding areas indicated in red and non-breeding range (north-eastern DRC, north-western Tanzania, Uganda and Kenya) indicated in green.

## Movement

The Blue Swallow is an intra-African migrant with breeding populations in eastern South Africa, north-western Swaziland, eastern Zimbabwe, western Mozambique, northern Malawi, north-eastern Zambia, south-eastern Democratic Republic of Congo and south-western Tanzania (Turner & Rose 1989). The birds arrive on their breeding grounds in September to October, and depart in April (Keith et al. 1992). From throughout their breeding range the Blue Swallows migrate in the non-breeding season to southern Uganda, western Kenya, north-eastern DRC and north-western Tanzania (Earle 1987). The birds are present on the non-breeding grounds from May to August and in some areas early September.

## Protection Status

The global Blue Swallow population is classified as Vulnerable under IUCN/BirdLife International threat criteria (A1c,e; A2c,e; C1) (BirdLife International 2000). This generally means that, the species is considered to have suffered or likely to suffer a maximum of a 20% population decline in 10 years or over the next three generations. This is mainly due to a decline in the extent of occurrence, area of occurrence and/or quality of habitat, and, this decline is likely to continue in the future (A1c,e). The decline is further known to be due to the effects of introduced taxa and the resultant decline is likely to continue in the near future (A2c,e). The total population is thought to be less than 3000 individuals and that there is likely to be continuing decline of more than 10 to 20 % of numbers of mature individuals in 10 years or over the next three generations (BirdLife International 2000). The Blue Swallow is listed on Appendix I and II of the Convention on the Conservation of Migratory Species of Wild Animals (CMS or Bonn Convention).

## Habitat requirements of the species

The primary habitat on the breeding ground is a combination of highland grassland areas interspersed with drainage lines in gullies and valleys; and other wetland systems such as pans and small dams (Keith et al. 1992). In the upper catchment of rivers, the start of a river is referred to as a drainage line and is simply a narrow long wetland. The birds select suitable grasslands - not for their foraging properties - but for their importance for nest building - sink-hole creation, Aardvark burrows etc. They also select suitable wetlands (drainage lines and other wetlands) amongst the grassland patches for foraging (Msuha & Sutherland 2001). The Blue Swallow prefers high altitude, high rainfall (> 1000 mm p.a.), undulating, open, primary mist-belt grasslands (Allan et al. 1987). The preferred sour grasslands generally have a sward height of <0.5 meters. In South Africa and Swaziland the Blue Swallow breeds exclusively within North-eastern Mountain Sourveld (Acocks veld type 8) and Natal Mist Belt (Acocks veld type 45) (Acocks 1975). Both of these grassland types are in urgent need of conservation (Duthie 1994; Louw & Rebelo 1996). No information is available on the wetland characteristics preferred by the birds. A piece of grassland with no drainage lines or other wetlands is unlikely to support any Blue Swallow pairs as there is insufficient food available and therefore the birds cannot breed in an area that is all wetland.

The results of a study currently being completed in South Africa has indicated that the way in which grasslands are managed does not play a role in how many Blue Swallow pairs an area can support (O'Connor *in prep.*). This supports the idea that wetlands are important for foraging in and not the grasslands component of Blue Swallow habitat. A follow-up study will be looking at the wetlands component of Blue Swallow habitat and how they are affected by grassland and wetland management practices. This will be combined with an extension of the Blue Swallow dietary study (Hawks 2000).

The primary habitat on the non-breeding range includes moist grasslands (Kenya) and seasonally flooded edges of permanent wetlands (Uganda) (Nasirwa & Njoroge 1996; Evans & Byaruhanga *in prep.*).

Apart from the contribution that wetlands make to Blue Swallow food supply results from a Blue Swallow dietary study from one site in South Africa indicated that the wild horses that are present undoubtedly play a role in maintaining this relatively high Blue Swallow population (1 pair in 52 ha). The horse manure provides a favourable breeding ground for many of the flies and dung-eating (coprophagous) beetles on which the Blue Swallows have been found to feed (Hawks 2000). Two nature reserves proclaimed for the Blue Swallow in Kwa-Zulu Natal have experienced a loss in the number of pairs of Blue Swallows breeding on the properties since management of the reserves was changed. One of the changes included the exclusion of cattle from both reserves. The Blinkwater Nature Reserve, previously supporting a population of 4 pairs, no longer has Blue Swallow breeding on the property. The Impendle Nature Reserve used to support 8 breeding pairs and in 2002 is now down to 3 pairs. The loss of large mammals in certain areas may impact on food supply to Blue Swallows and consequently may result in local declines in Blue Swallow populations (Evans *in prep.*).

## Biology and Ecology

Blue Swallows build a cup-shaped nest composed out of a mixture of mud and grass. The mud is applied in layers and not in the form of pellets as other swallows do (Snell 1963; 1969, 1970, Evans & Barnes 2000). Both the male and female contribute to nest building although the female does most of the work. If a nest site remains suitable Blue Swallows return year after year and repair the nest for use in that season. It takes the birds 14 to 20 days ( $n = 4$ ) to build a new nest. The birds spend more time undertaking repairs to a nest at between 17 to 23 days ( $n = 22$ ) (Evans *in prep.*).

Blue Swallow nests are located in riverbanks, road cuttings, sink holes, Aardvark burrows and disused prospecting and mine shafts (Snell 1969, Allan et al. 1987). There is usually only one nest per site. The birds do not nest colonially. Nest density in South Africa ranges from 1 pair in 52 ha to as little as 1 pair in 300 ha (Allan et al. 1987). Blue Swallows arrive on the breeding grounds in September to October and depart after the breeding season in April. They breed between October and March.

There are suggestions that under highly unusual circumstances Blue Swallows breed co-operatively, but for most of the time the birds are monogamous (Du Plessis, Siegfried, & Armstrong, 1995). Breeding males take ownership of their nest site and defend it from intruding males (Snell 1970). In areas where suitable nesting sites outnumber male birds and each therefore has access to a nest site; ownership disputes are almost never witnessed. In areas where males outnumber

suitable nest sites disputes between the resident male and intruder are regularly observed. Disputes involve the birds aggressively chasing each other around with much vocalising.

Three eggs (seldom 2 or 1, extremely rarely 4) are usually laid with a mean of 2,83 eggs for 17 clutches in Zimbabwe (Keith *et al.* 1992). A mean of 2,64 eggs (n = 119 clutches) recorded between 1995 and 1998 in Mpumalanga South Africa. Only the female incubates for 14-16 days (Tarboton, 2001). Nestlings hatch blind and naked and are fed for 23 – 26 days by both parents. At fledging their wings are approximately 33% shorter than the average adult wing length (Evans *in prep.*). After fledging they still depend on the parents for food for approximately three more weeks and during this time, the fledglings return with the parents to the nest and nest area to roost at night. Over this time period the fledglings are fed progressively less by the parents until they are self sufficient. In very good seasons the birds occasionally raise two and very occasionally three broods (Snell 1969).

Long term monitoring (1986 – 2001) (Evans *in prep.*) studies in Mpumalanga, South Africa show that mean productivity is 3,841 eggs/nest, 2,164 nestlings/nest and 1,334 fledglings/nest (n = 94). These same studies have shown that productivity is relatively low as 1,936 eggs/nestlings, 1,706 nestlings/fledgling and as many as 3,404 eggs/fledgling are needed. There is thus a higher proportion of eggs not hatching compared to nestlings fledging. Nesting attempts are often terminated by prolonged periods of mist and rain (Evans & Bouwman 2000, Childs 2001). Studies in Zimbabwe obtained in the late 60's and early 70's showed mean productivity levels of 2,64 eggs/nest, 2,07 nestlings/nest and 1,92 fledglings/nest (n = 14). The same studies have shown that productivity is relatively high as 1,276 eggs/nestling, 1,07 nestlings/fledgling and 1,37 eggs/fledgling (Snell, 1969, 1970, 1979). Although less eggs/nest were produced in Zimbabwe compared to the Mpumalanga study more nestlings/nest fledged in Zimbabwe than in Mpumalanga. The conversion of eggs to nestlings and to fledglings was much more efficient in the Zimbabwe study compared to the Mpumalanga study. Considering the time difference in the two studies the decreasing productivity trend may have less to do with differences in geography and more to do with a poor habitat quality in Mpumalanga in recent times (1986 – 2001) compared to a much better habitat quality in Zimbabwe in the 1960's and early 1970's when the study was completed there. Grafton (1997) reports that at least 37 fledglings were produced from 10 known breeding pairs during the 1996/97 breeding season in KwaZulu-Natal. During the 2000/2001 breeding season; 34 pairs observed, 22 active nest sites, 79 eggs, 75 nestlings and 65 fledglings. During the 2001/2002 breeding season; 51 pairs observed, 39 active nest sites, 168 eggs, 121 nestlings, 103 fledglings (Mattison *pers comm.*).

Known causes of nest losses (eggs and nestlings) involve predation by Fiscal Shrike and humans. Snakes have also been found in Blue Swallow nesting sites but no confirmed case of egg or nestling predation exists. In KZN, at least four nests (eggs and / or nestlings) have been lost due to fine red sand filling the nest (possibly created by some burrowing insect??) and the contents subsequently being eaten by red ants (Mattison *pers comm.*).

Nests occasionally flood or wash away during seasons with high rainfall. In KwaZulu-Natal South Africa during the 2001/2002 breeding season, at least 9 nesting attempts were negatively affected by the huge amount of rain during the November period (Snell 1969; Evans *in prep.*; Mattison *pers comm.*)

On the breeding grounds Blue Swallows are often recorded grouping together in loose groups. A group is defined as being composed of three or more individuals exhibiting a basic cohesion, by proximity, social organisation or shared attraction to a food source or water site (Evans *in prep.*). The mean number of Blue Swallows comprising a group was four (n = 34) with an equal number of males and females. The birds behaviour within these groups suggested that the function of these groups is predominantly nest site selection and possibly included mate selection. The birds comprising a group were usually observed flying in unison in and out of prospective nesting sites. No trend could be obtained for the changes in the group dynamics throughout the season even when dividing and analysing the activities and composition of groups early (before nest repair and during nest repair), middle (during the egg-laying period) and at the end of the breeding season (nestlings and no further breeding activity). Even once all breeding activity had ceased group formation still occurred with the same activities before and during the breeding season. This formation of groups at nesting sites was superseded by the formation of groups of 12 to 13 individuals flying relatively high. The function of these latter larger groups appeared to be preparation for the migration back to central Africa. In KwaZulu-Natal; landowners report of groups of 20-30 Blue Swallows flying around, late March and early April - all flocks of this number were seen on Highover and Roselands Farms in the Richmond area (Mattison *pers comm.*) Only on the non-breeding range have the birds been recorded roosting communally in areas of tall and short grassland (Zimmerman, Turner & Pearson 1996, Byaruhanga *pers comm.*).

Blue Swallows forage on aerial arthropods by flying 0,5 to 1 m above the mean vegetation height at a mean speed of 14,01 kmh<sup>-1</sup> (3,89ms<sup>-1</sup>). When not foraging the birds fly higher, much faster and straighter at a mean speed of 21,18 kmh<sup>-1</sup> (5,88 ms<sup>-1</sup>) (Evans *in prep.*).

## Threats and Potential Threats

◆ = low threat, ◆◆◆◆ = high threat.

### 1. Habitat degradation and conversion mainly as a result of the following:

- 1.1) Commercial Afforestation ◆◆◆◆: This involves converting large areas of grasslands into plantations of exotic eucalyptus, pine and wattle trees.
- 1.2) Invasion of exotic eucalyptus, pine and wattle trees ◆◆◆: The exotic trees self-seed themselves into the adjacent grassland areas. The commercial companies are not taking any responsibility for controlling these renegade trees (Childs 2001).
- 1.3) Large scale agriculture (e.g. sugarcane, potatoes) ◆◆◆:- Political and economical pressures are increasingly forcing private landowners to transform virgin grassland to more economically viable land-uses in order to survive.
- 1.4) Rural population growth and clearing for subsistence (small-scale agriculture) ◆◆◆: most important habitats usually fairly inaccessible and not therefore suitable for cultivation. However, this is becoming increasingly important as rural populations expand. Inappropriate farming methods lead to soil erosion.
- 1.5) Intensive livestock farming and overgrazing ◆: Recent research by O'Connor (in prep) is indicating that this may not be a direct threat. Hawks (2000) indicated that, in at least one study site, Blue Swallows depend on food sources (flies and beetles) that require a source of dung to complete parts of their life-cycle. The removal of large mammals (dung machines) and not replacing them with any equivalents may be the real threat.
- 1.6) Inappropriate management and drainage of wetlands ◆◆◆: The extent of inappropriate management of wetlands as a threat is unknown. Drainage of wetlands for cultivation and road construction is a serious threat (Nasirwa & Njoroge 1997).
- 1.7) Intensive grassland burning ◆. Recent research by O'Connor (in prep) is indicating that the manner in which the grasslands are managed (burning, grazed or bailing) may not have any impact on Blue Swallow populations.
- 1.8) Mining ◆◆: Gold, manganese and possibly diamond mines in certain areas are known to be a threat in South Africa.
- 1.9) Urbanisation ◆: some of the nest sites in Swaziland are under threat of the rapidly spreading capital city of Mbabane.
- 1.10) Permanent removal of livestock (or other large ungulates) from a Blue Swallow area. ◆: This appears to have contributed to the loss of Blue Swallows from at least two areas in South Africa and contributes to the high density of Blue Swallows in one area in South Africa.

2. Local hunting ◆: This is probably a low level opportunistic activity occurring when young herd boys looking after the cattle get bored and climb in and out of sink-holes and other holes they find. This inadvertently disturbs breeding Blue Swallows and removing nestling for use as bait for fishing. We do not know whether or not Blue Swallows are targeted by any traditional healers across its range.

3. Uncoordinated eco- tourism developments ◆. Small-scale eco-tourism development that does not take into account all impacts has resulted in the loss of Blue Swallow nesting sites in South Africa (Evans. 1997). Eco-tourism is seen as an alternate source of income for poor communities. Developments need to take into account all potential impacts and mitigations.

4. Specialised habitat requirements ◆◆: The distribution of Blue Swallows was naturally fairly limited. This was made substantially worse in more recent times by habitat destruction and conversion. Inadequate suitable nesting sites may lead to increased competition for nests and mates than would otherwise occur under natural conditions. The process of sinkhole formation may be negatively affected due to timber drying out underground streams. Fragmentation of grasslands (a result of grassland transformation) may result in Aardvark *Orycteropus afer* not getting to potential suitable sites to dig holes for the birds. Snaring of Aardvark has led to a decline in the Aardvark population, thereby also influencing the number of holes available for the birds.

**5. Insecticides and pesticides use in agriculture?:** In areas where Blue Swallows coexist in close proximity to agricultural crops such as potatoes, sugarcane, tea, maize etc. the use of insecticides may affect the prey availability for Blue Swallows?

**6. Wars and conflicts (especially in the DRC) ♦:** Internal, regional wars/conflicts have led to habitat degradation and increased illegal activities (farming, mining, settlement and agriculture) even within protected areas. Blue Swallow breeding and non-breeding ranges are confined within a troubled region on the near borders with east African countries.

**Targets Recommended in BirdLife International (2000)**

- Identify key non-breeding sites and conserve them.
- Survey and monitor breeding population size and trend at less well-studied sites.
- Control and remove non-native (exotic) plants at breeding sites.
- Assess effects of grassland fires on spread of non-native plants.

**Issues affecting successful implementation of a Zambian Blue Swallow Action Plan.**

<b>Risks</b>	<b>Opportunities</b>
Group 1	Group 1
Inadequate data on distribution and occurrence	Designation of RAMSAR sites
Lack of knowledge	Group 2
Lack of indigenous knowledge	Supported by ZAWA....
Group 2	Blue swallow habitat is already in a protected area
Bad roads	Statutory instrument No. 28 1997 of EPPC act 1990 CAP 204
Inaccessibility of breeding sites	Nyika fall in a protected area – ZAWA
Inaccessibility especially during the breeding season	Group 3
Group 3	Involvement of stakeholders and interested parties in conservation of natural resources eg ZAWA communities & NGO's
Non availability of funding	Implementers available by involving conservation related institutions
Transportation of stakeholders	Participation
Lack of funding for employment	Availability of amateur interest
Group 4	Presence of ZAWA
HIV pandemic	A fairly strong support organization in ZOS
Group 5	Participation of chiefs, making implementation easier
Political interference	Willingness of individuals to support the implementation
Lack of empowerment of local communities	Group 4
Group 5	Availability of NGO's willing to fund conservation programs for globally threatened Spp eg RSPB
Poverty	
Group 6	
BS a low priority as apposed to other issues.	



Table 2: Local distribution, numbers & protected area status of Blue Swallow sites within range states.

Country	Region/ Province	Site (IBA site no. if applicable)	PA status	No. of known nests (pairs)	References
South Africa	Limpopo (Northern)	004 Wolkberg Forest Belt IBA	SNR; FR; SF	2	(Fishpool & Evans 2001). (Barnes 1998).
	Mpumalanga	008 Blyde River Canyon IBA	SNR	1	(Fishpool & Evans 2001). (Barnes 1998).
		009 Graskop Grasslands IBA	Unprot.	14	(Fishpool & Evans 2001). (Barnes 1998).
		011 Blue Swallow Natural Heritage Site IBA	NHS	10	(Fishpool & Evans 2001). (Barnes 1998).
	KwaZulu-Natal	SA 013 Misty Mountain Natural Heritage Site Sub- Regional IBA	NHS	2	Barnes 1998
		057 Impendle Nature Reserve IBA	SNR	5 prs (3 active) (01/02 data)	(Fishpool & Evans 2001). (Barnes 1998). (Mattison pers comm.)
058 KwaZulu- Natal Mist-belt Grasslands IBA.		Unprot.	46 prs (36 active) (01/02 data)	(Fishpool & Evans 2001). (Barnes 1998). (Mattison pers comm.)	
Swaziland	Hhohho	001 Malolotja Nature Reserve IBA	NR	8	(Fishpool & Evans 2001). (Barnes 1998).
Zimbabwe	Manicaland	001 Nyanga Mountains IBA	NP		(Fishpool & Evans 2001). (Barnes 1998).
		002 Nyanga lowlands / Honde valley IBA.	PNR		(Fishpool & Evans 2001). (Barnes 1998).
		003 Stapleford Forest IBA	SF		(Fishpool & Evans 2001). (Barnes 1998).
		004 Bvumba Highlands IBA	BR		(Fishpool & Evans 2001). (Barnes 1998).
		006 Chimanimani Mountains IBA	NP		(Fishpool & Evans 2001). (Barnes 1998).
Mozambique	Manica	006 Chimanimani Mountains IBA	Unprot.	Unknown	(Fishpool & Evans 2001).
	Sofala	008 Gorongosa mountain and National Park IBA	Unprot.	Unconfirmed	(Fishpool & Evans 2001).
Malawi	Northern	001 Misuku Hills Forest Reserve	FR		(Fishpool & Evans 2001).

Country	Region/ Province	Site (IBA site no. if applicable)	PA status	No. of known nests (pairs)	References
		IBA			
	Central	002 Nyika National Park IBA	NP	260 possibly 300 pairs	(Fishpool & Evans 2001).
		N. Viphya (Chimaliro)	FR	Small numbers	(Dowsett-Lemaire & Dowsett In prep.)
	Southern	006 South Viphya Forest Reserve IBA	FR	Small numbers	(Fishpool & Evans 2001).
		010 Ntchisi Mountain Forest Reserve IBA	FR	Vagrant (on passage)	(Fishpool & Evans 2001).
		Kirk Range, Mwanza	Unprot	Small numbers	(Dowsett-Lemaire & Dowsett In prep.)
		018 Mount Mulanje Forest Reserve IBA	FR, BR	Small numbers	(Fishpool & Evans 2001).
Zambia	Eastern	022 Nyika National Park IBA	NP		(Fishpool & Evans 2001).
Tanzania	Iringa	058 Livingston Mountains forests IBA	FR		(Fishpool & Evans 2001).
		061 Njombe forests IBA	FR		(Fishpool & Evans 2001).
	Mbeya	065 Mount Rungwe IBA	FR		(Fishpool & Evans 2001).
	Morogoro, Iringa	066 Udzungwa Mountains IBA	FR		(Fishpool & Evans 2001).
	Mbeya	069 Umalila Mountains IBA	FR		(Fishpool & Evans 2001).
	Mbeya, Iringa	073 Kitulo Plateau IBA	Unprot.		(Fishpool & Evans 2001).
DRC	Katanga	017 Upemba National P ark IBA	NP		(Fishpool & Evans 2001).
		007 Lendu Plateau IBA	Unprot		(Fishpool & Evans 2001).
Kenya	Nyanza	040 Ruma National Park IBA	NP		(Bennun & Njoroge 1999) (Fishpool & Evans 2001).
	Western	057 Busia Grasslands IBA	Unprot		(Bennun & Njoroge 1999) (Fishpool & Evans 2001).
Uganda	Rakai	013 Sango Bay area IBA	Unprot		(Byaruhanga et al 2001) (Fishpool & Evans 2001).

Country	Region/ Province	Site (IBA site no. if applicable)	PA status	No. of known nests (pairs)	References
	Mpigi	017 Mabamba Bay IBA	Unprot		(Byaruhanga et al 2001) (Fishpool & Evans 2001).
		Nabugabo area IBA	Unprot		(Byaruhanga et al 2001)

Key:

SNR = Strict Nature Reserve  
 PNR = Private Nature Reserve  
 BR = Botanical Reserve  
 NHS = Natural Heritage Site  
 FR = Forest Reserve  
 SF = State Forests  
 NP = National Park  
 WHS = World Heritage Site  
 BR = Biosphere Reserve  
 Unprot = Unprotected

## Chapter 3.

### Action Plan.

<b>Vision.</b>
Establish a flagship for montane grassland and wetlands conservation

Aim	Indicators
The Blue Swallow is in Zambia with a stable population and no further decline in its habitat quantity or quality by the end of 2006.	<ul style="list-style-type: none"> <li>• By 2006 the Nyika National Park Blue Swallow population is stable at 15 pairs.</li> <li>• By 2006 grassland and wetland surface areas in the Nyika National Park remain unchanged from 2003.</li> </ul>

Objectives	Indicators
1. Reduced harmful human impact on the Blue Swallow by the end of 2006.	<ul style="list-style-type: none"> <li>•</li> </ul>
2. Reduce rate of decline of the herbivore population in Nyika National Park by the end of 2006.	<ul style="list-style-type: none"> <li>• By 2006 twice as many anti-poaching patrols are conducted from there rate in 2004.</li> <li>• By 2006 the rate of decline of the herbivore population has been reduced by 25%.</li> </ul>
3. Reduced hunting of Aardvark resulting in an increase in the number of Blue Swallow breeding sites.	<ul style="list-style-type: none"> <li>• By 2006 there is a 20% increase in the number of Aardvark burrows.</li> </ul>
4. Improved perception on the international market of Zambia as an avi-tourism destination by end of 2006.	<ul style="list-style-type: none"> <li>• By 2006 10 international and national tour organisers are advertising Zambia as an eco-tourism destination.</li> <li>• By 2006 4 eco-tourism tours visit the Nyika National Park annually.</li> </ul>
5. Establish a central Zambian Blue Swallow Action Group committee representing ZAWA, ZOS, business person, ZNTB and Zambia Crane project.	<ul style="list-style-type: none"> <li>• By 2006 the Zambian Blue Swallow Action Group is meeting twice annually.</li> <li>• By 2006 the Zambian Blue Swallow Action Group has submitted 3 funding applications.</li> </ul>

## Projects Table.

**Table 1. Objectives and project concepts.**

### Keys:

**Overall priority:** \* = low, \*\* = medium, \*\*\* = high & \*\*\*\* = critical

**Cost:** 1 = 0 – 5000 \$, 2 = 6000 – 10 000 \$, 3 = 11 000 – 20 000 \$ & 4 = > 20 000 \$

The numbering of activities in table 1 ensures that each action can be related back to the objective to which it contributes. The first activity listed under the heading Policy and Legislation is numbered 1.3. This means that it is third activity contributing to achievement of objective 1. The sixth activity under the heading Policy and Legislation is numbered 5.7. This means that it is the seventh activity contributing to achievement of objective 5.

Activities	Province	Agencies responsible	Overall priority	Time scale	Cost	Indicators	Risk Opportunity
<b>A) Policy and legislation.</b>							
1.3 Enforcement of park regulation & signage (speed humps level)	NP/EP	ZAWA	****	July 03 to Dec 06	2	10 staff Employed & Working	R: Staff not working (o)Staff in place of working
2.3. Increase number of staff for law enforcement in the Nyika NP.	NP/EP	ZAWA / ELAMU	**	July 03 to July 04	3	More staff	R: ZAWA is not able to :employ enough staff O: Staff in place and working
2.6. Increase number of anti-poaching patrols in Nyika NP	NP/EP	ZAWA / ELAMU	****	July 03 to July 04	3	A reduction in the poaching in Nyika NP	R: no funding O: rangers already in place
2.7. Develop common policies on trade in game with Malawi.	NP/EP	ZAWA	**	04 January to January 06	2	One common policy developed on trade	R: Policy is not followed (O) Policy followed and produce results
5.5. Lobby for re-instatement of species protection unit (anti-corruption unit).	NP/EP	Working group BS	*	July 03 to July 06	1	Unit reinstated and functional	R: Interference from politician O: Cut illegal trade.
5.7. Copies of legislation should be available in Nyika NP	NP/EP	ZAWA	*	July 03 to July 06	1	So copies distributed	R: Copies not read and used O: Improved awareness.

<b>Activities</b>	<b>Province</b>	<b>Agencies responsible</b>	<b>Overall priority</b>	<b>Time scale</b>	<b>Cost</b>	<b>Indicators</b>	<b>Risk Opportunity</b>
<b>B. Species &amp; habitat</b>	NP/EP						
2.1. Development of a Management plan for Nyika NP.	NP/EP	ZAWA	* * * *	July 02 – July 05	2	One GMP in place	O + R: No GMP on the Malawian side MGP acceptable by both parties
1.2. Develop a management plan that sets limits for acceptable use of resources by people in the Nyika NP	NP/EP	ZAWA	* * * *	July 02 – July 05	2	One MGP in place	O + R: No GMP on the Malawian side MGP acceptable by both parties
5.6. Supply Nyika NP staff with literature on the natural history and ecology of the Nyika NP (Leonard's "IBAs in Zambia"; ZOS, "Nyika National Park Bird List" and; ZOS, "Atlas Square Lists" provided by Dowsett).	NP/EP	ZAWA & PARTNERS	* * *	July 03 to July 04	1	Number of literature supplied.	Literature information is not used for the park. Literature is used and improves the MGT of the park.

Activities	Province	Agencies responsible	Overall priority	Time scale	Cost	Indicators	Risk Opportunity
<b>C) Monitoring &amp; research</b>							
1.4. Research and monitoring project to identify the cultural practices that might impact on BS.	NP/EP	ZAWA & PARTINERS (205)	****	July 03 to July06	3	Monitoring system in place and functioning	O: Monitoring system can provide valuable information for GMT
3.1. Research into the presence and abundance of Blue Swallows in the Nyika NP.	NP/EP	ZAWA	****	Nov 03 – Nov 04	1	Info. abundance of Aardvark on Nyika	R: Access to Nyika O: Presence of local staff
3.2. Research into potential hunting of Aardvark, frequency and numbers	NP/EP	ZAWA	**	Nov 03 – Jun 04	1	Info. on hunting states of Aardvark	R: Access to Nyika O: Presence of local staff
3.3. Initial 2 week survey of BS on the NNP involving local Nyika staff	NP/EP	ZAWA	****	Nov 03	1	Info on BS	R: Access to Nyika
3.4. Research into BS nest site's and biology in the Nyika NP.	NP/EP	ZAWA	****	Oct 04 – Oct 05	3	Info. on BS breeding status	R: Access to Nyika
3.5. Establish Blue Swallow and Aardvark monitoring programme involving Nyika NP ZAWA staff.	NP/EP	ZAWA	****	Nov 05 – Dec 06	2	Info. on the BS population trend	R: Access to Nyika O: Presence of local staff
3.6. Enlist support of the (local and abroad) university in establishing Blue Swallow and Aardvark research programmes in Nyika National Park.	NP/EP	ZAWA	***	Oct 03 – Dec 03	1	Number of fellowship/scholarship on offer	O: Availability of research/ fellowship / sponsorship
5.2. Co ordinate implementation of the Zambian, BS action plan.	NP/EP/ ZAWA- HQ	ZBSWG. ZAWA	***	July 03 to July 06	2	Number of activities in the plan implemented	R: No commitments from people improved MGT of BS.
5.3. Implement certain aspect of the BS action plan.	NP/EP	ZBSWG and PARTINERS (ZAWA)	**	July 03 to July 06	2	Number of activities in the plan implemented	R: No commitment from people improved MGT of BS.
5.8. Monitoring for disease in large mammals in Nyika NP (vet staff) and surrounding areas.	NP/EP	ZAWA	*	July 03 - ongoing	2	Early detection of any disease outbreaks	R: Access to Nyika







**Monitoring and Evaluation Plan.**

**Who?** It was agreed that this is the task of Zambian Ornithological Society (ZOS). On reviewing the newly completed.

**How & How often?** Annually. ZOS co-ordinator would circulate the table for monitoring and evaluating implementation of the Zambian Blue Swallow Action Plan to the agencies responsible for the different components. Each agency would fill in updated information based on their progress and return the table to the ZOS co-ordinator. The ZOS co-ordinator would then collate the information into one table for distribution to all contributors to the Zambian Blue Swallow Working Group and other interested organisations and individuals. The ZOS co-ordinator should also use the most up to date table to report on progress to meetings of the Zambian Ornithological Society management.

**Table 2. Monitoring and evaluating implementation of the Zambian Blue Swallow Action Plan.**

<b>Activities</b>	<b>Province</b>	<b>Agencies responsible</b>	<b>Time scale</b>	<b>Completion date</b>	<b>Indicators</b>	<b>Remarks</b>
<b>A) Policy and legislation.</b>						
1.3 Enforcement of park regulation & signage (speed humps level)	NP/EP	ZAWA	July 03 to Dec 06		10 staff Employed & Working	
2.3. Increase number of staff for law enforcement in the Nyika NP.	NP/EP	ZAWA / ELAMU	July 03 to July 04		More staff	
2.6. Increase number of anti-poaching patrols in Nyika NP	NP/EP	ZAWA / ELAMU	July 03 to July 04		A reduction in the poaching in Nyika NP	
2.7. Develop common policies on trade in game with Malawi.	NP/EP	ZAWA	04 January to January 06		One common policy developed on trade	
5.5. Lobby for re-instatement of species protection unit (anti-corruption unit).	NP/EP	Working group BS	July 03 to July 06		Unit reinstated and functional	
5.7. Copies of legislation should be available in Nyika NP	NP/EP	ZAWA	July 03 to July 06		So copies distributed	

<b>Activities</b>	<b>Province</b>	<b>Agencies responsible</b>	<b>Time scale</b>	<b>Completion date</b>	<b>Indicators</b>	<b>Remarks</b>
<b>B. Species &amp; habitat</b>	NP/EP					
2.1. Development of a Management plan for Nyika NP.	NP/EP	ZAWA	July 02 – July 05		One GMP in place	
1.2. Develop a management plan that sets limits for acceptable use of resources by people in the Nyika NP	NP/EP	ZAWA	July 02 – July 05		One MGP in place	
5.6. Supply Nyika NP staff with literature on the natural history and ecology of the Nyika NP (Leonard’s “IBAs in Zambia”; ZOS, “Nyika National Park Bird List” and; ZOS, “Atlas Square Lists” provided by Dowsett).	NP/EP	ZAWA & PARTNERS	July 03 to July 04		Number of literature supplied.	

Activities	Province	Agencies responsible	Time scale	Completion date	Indicators	Remarks
<b>C) Monitoring &amp; research</b>						
1.4. Research and monitoring project to identify the cultural practices that might impact on BS.	NP/EP	ZAWA & PARTINERS (205)	July 03 to July06		Monitoring system in place and functioning	
3.1. Research into the presence and abundance of Blue Swallows in the Nyika NP.	NP/EP	ZAWA	Nov 03 – Nov 04		Info. abundance of Aardvark on Nyika	
3.2. Research into potential hunting of Aardvark, frequency and numbers	NP/EP	ZAWA	Nov 03 – Jun 04		Info. on hunting states of Aardvark	
3.3. Initial 2 week survey of BS on the NNP involving local Nyika staff	NP/EP	ZAWA	Nov 03		Info on BS	
3.4. Research into BS nest site's and biology in the Nyika NP.	NP/EP	ZAWA	Oct 04 – Oct 05		Info. on BS breeding status	
3.5. Establish Blue Swallow and Aardvark monitoring programme involving Nyika NP ZAWA staff.	NP/EP	ZAWA	Nov 05 – Dec 06		Info. on the BS population trend	
3.6. Enlist support of the (local and abroad) university in establishing Blue Swallow and Aardvark research programmes in Nyika National Park.	NP/EP	ZAWA	Oct 03 – Dec 03		Number of fellowship/scholarship on offer	
5.2. Co ordinate implementation of the Zambian, BS action plan.	NP/EP/ ZAWA-HQ	ZBSWG. ZAWA	July 03 to July 06		Number of activities in the plan implemented	
5.3. Implement certain aspect of the BS action plan.	NP/EP	ZBSWG and PARTINERS (ZAWA)	July 03 to July 06		Number of activities in the plan implemented	
5.8. Monitoring for disease in large mammals in Nyika NP (vet staff) and surrounding areas.	NP/EP	ZAWA	July 03 - ongoing		Early detection of any disease outbreaks	

Activities	Province	Agencies responsible	Time scale	Completion date	Indicators	Remarks
<b>D) Public awareness and training</b>						
1.1. Posters and general awareness of Blue Swallows	NP/EP	ZAWA	Jan 04 – Dec 06	2	More people are aware of Blue Swallows	
2.8. Staff training in park boundaries and supplied with appropriate maps.	NP/EP	ZAWA	Jan 04 – Dec 06	2	Improved patrolling of the area and enforcement of laws	
3.7. General awareness of Blue Swallows rarity and threat in order to reduce damage to nests and nest sites by herd boys and others visiting the Nyika National Park.	NP/EP	ZAWA	Nov 05 – Dec 06	2	Number of visitors to Nyika NP	

Activities	Province	Agencies responsible	Time scale	Completion date	Indicators	Remarks.
<b>E) Community involvement</b>						
2.2. Ensure that the Zambian Rest House is taken up by revising the fee structure.	NP/EP	ZAWA	Jan 04 – Dec 04		Accommodation for tourists available on the Nyika. Increase in the number of tourists visiting the Nyika NP.	
2.3. Separate housing provided for the ZAWA park staff.	NP/EP	ZAWA	Dec 03 – Dec 05		Houses	
2.5. Involve local communities in the management and benefits from Nyika NP.	NP/EP	ZAWA	July 03 - ongoing		Local communities more positive about conserving the Nyika NP	
4.1. Provide Zambia National Tourist board with information on the Nyika National Park and the circuit on which it is located.	NP/EP	ZAWA	Nov 05 – Dec 06		Number of visitors to Nyika NP	
4.2. Provide ZNTB with info on the special birds of Zambia (not present in Malawi)	NP/EP	ZAWA	Nov 05 – Dec 06		Number of visitors to Nyika NP	
4.3. Promote development of tourism infrastructure, roads and boundary marking.	NP/EP	ZAWA	Jan 06 – Dec 06		Number of investors applying to establish tourist facilities in Nyika NP	
5.4. Fund raising and administration.	NP/EP	Zambian Blue Swallow Working Group	Aug03 - ongoing		Representative forum established	

Activities	Province	Agencies responsible	Time scale	Completion date	Indicators	Risk Opportunity
<b>F) International</b>						
5.1. Form part of the African Blue Swallow Working Group.	NP/EP	ZBS working group	July 02 to on going 06		ZBS join the ABSWG.	

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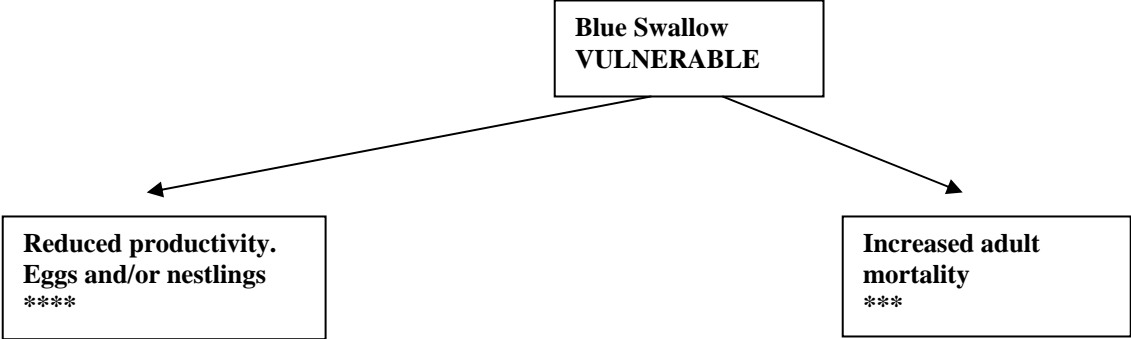
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**Chapter 4.**

**Problem tree.**



**Reduced productivity. Eggs and/or nestlings**

**Reduced productivity.  
Eggs and/or nestlings  
\*\*\*\***

Predation by snakes  
and lizards etc.  
\*

Destruction of nests  
by herd-boys (eggs  
and nestlings  
\*

Direct disturbance by  
humans  
\*\*

Decline in Insect food  
supply  
\*\*\*

Possible shortage of  
breeding sites  
\*\*\*

Decline in herbivore  
population, needed for  
breeding of Blue  
Swallow food  
(decreased dung)  
\*\*\*

Digging up of  
chikanda (orchid  
tubers)  
\*

Decline  
animals  
(dung)  
\*\*\*

Decrease in  
available habitat  
\*

Uncontrolled  
fire  
\*

Hunting of Aardvark  
\*\*\*\*

Human encroachment  
\*

Construction of  
roads  
\*

Poor  
management  
\*\*\*\*

Poverty  
\*\*\*\*

Human population  
increase  
\*

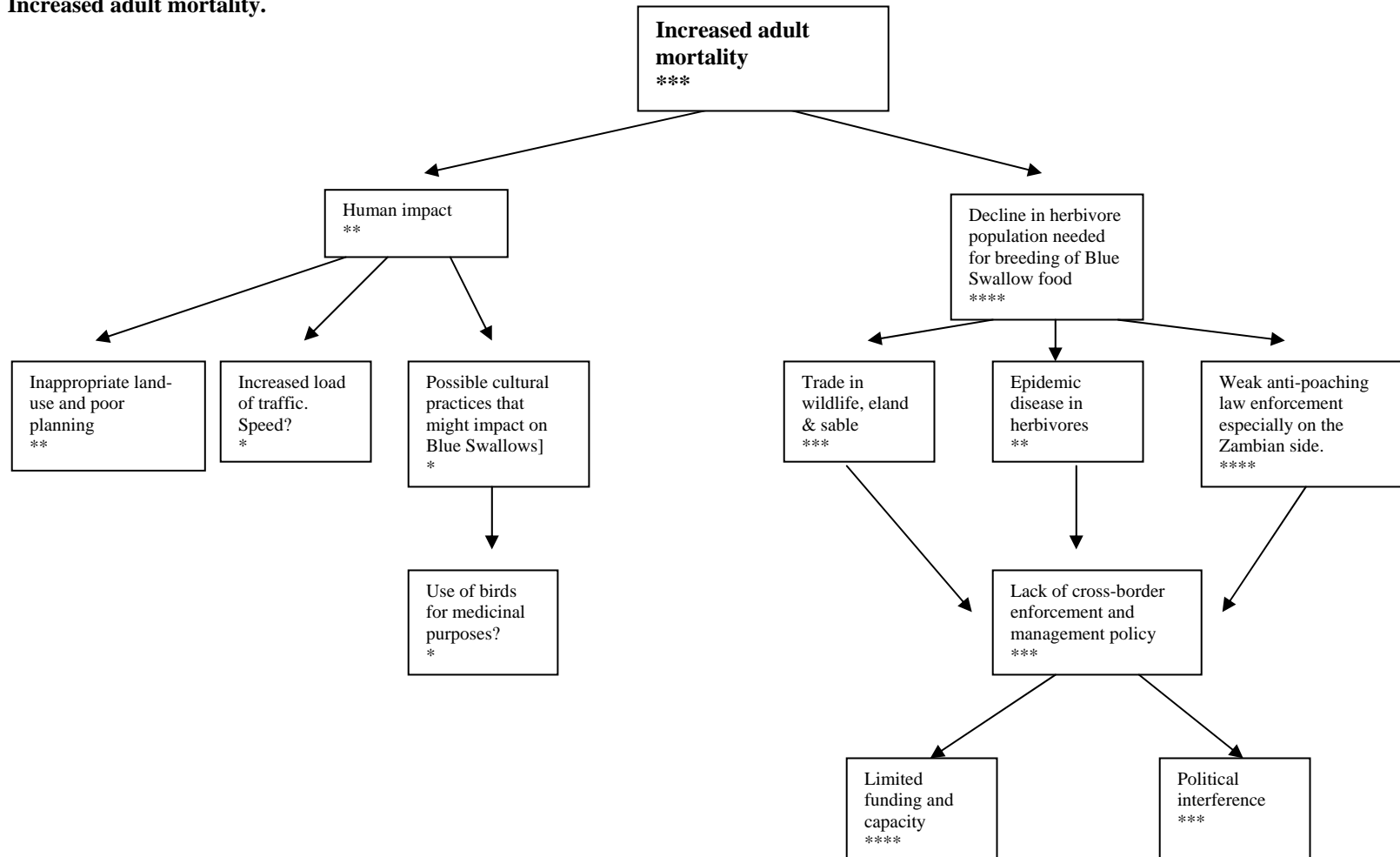
Excessive  
tourism  
\*

Poor  
management  
plan  
\*\*\*\*

Poor economy  
\*\*\*\*

Limited resources and  
capacity  
\*\*\*\*

**Increased adult mortality.**



## Chapter 5

### Workshop Participants, Expectations, Contact details & Apologies.

#### Participants and Their Expectations:

NAME	ORGANISATION	POSITION	WHERE BASED?	EXPECTATIONS?
Steven Evans	BirdLife S.A / BirdLife ASWG	Species & sites cons. Unit char AF SP WG	Johannesburg South Africa	Build networks and share experiences. Compile practical plan to conserve the blue swallow in Zambia. Meet new friends.
Daniel	ZAWA / ZOS	Community liaison officer SPP co-ordinator	Chilanga	National action plan done or implemented
Nkandu Brian	Environmental council of Zambia (ECZ)	Inspector – environmental impact assessment - unit	Lusaka	See an action plan. Done and how it fits in EIA regulations. To see how the Ramsar convention can help to conserve the blue swallow
Gideon K Goma	Local Leader	Senior Chief	Chama District	To learn from workshop and come out with what has been planned
Abinala Luhanga	Local Leadership	Chief Retainer	Isoka District	To learn
Elwell Muwowo	Local Leader	Chief Muyombe	Isoka District	To attend a workshop Study about blue swallows
Jarton Shawa	ZAWA / SLAMU	Park ranger - research	MFUWE mambwe district eastern province Luangwa valley	How best we can protect the blue swallow
Ellie Mwiya	ZAWA	Wildlife ecologist	Chilanga	To come up with an action plan which will help conserve blue swallow birds Learn how to produce an action plan for endangered species in Zambia Share experiences and learn from others
Bob Stuernstedt	ZOS member “Birding with Bob” tour guide	ZOS / Livingstone	Livingstone	Publicity for importance of birds as conservation indicators Learn how best to implement species action plan for specific birds
Mike	ZOS	Member ecologist	Lusaka	To ensure the conservation of the habitat of the blue swallow in Zambia and the region.
Moffat nyurenda	Local Leadership	Chief retainer	Chama District	To learn
Wilfred Moonga	ZAWA	Coordinator technical training	Chilanga	Learn how to preparation of SP action

				plans done NAP for the cons of blue swallow in Zambia
Ben Kamwneshe	manager	Longacres lusaka	Zambia crane & wetland conservation project	Learn more about blue swallow

**Contact details:**

NAME	ORGANIZATION	POSTAL ADDRESS	TELEPHONE & FAX	E-MAIL
Moffat Nyirenda	Chief retainer	Chief Kambombo		
Abinala Luhnga	Chief retainer	Chief Muyombe		
Gideon K Goma senior chief Kambombo	Local leader	P O Box 540056	{Chama op 06482018}	
Elwell Muwowe chief Muyombe	Local leader	P O Box 25	Muyombe	
Mike Bingaham	ZOS	P/ Bag 31 Woodland	096 751284	Mbingham@zamnet.zm
Bob Sijemstedt	ZOS	Box 61189	097 769333	Bob@zamnet.zm
Ben Kamweneshe	Zambia Crane \$ Wetlands Conservation Project	Plot 4978 LosAngels Boulevard Long acres, box 50551, Ridgeway, Lusaka.		<a href="mailto:crane@zamnet.zm">crane@zamnet.zm</a>
Brian Nkandu	Environmental Council of Zambia	P O Box 35131, Lusaka	260-01-254130	
Jarton Shawa	ZAWA- SLAMU	PO Box 18, Mfuwe	260-06-245042	
Ellie K Mwiya	ZAWA-HQ	Private bag 1, Chilanga	260-01-278365 (Tel/fax)	Mwiyas2001@yahoo.co.uk
Wilfred Moonga	ZAWA-HQ	Private bag 1, Chilanga	260-01-278265 (Tel/fax)	
Daniel M Mwizabi	ZAWA-HQ	Private bag 1, Chilanga	260-01-278265 (Tel/fax)	<a href="mailto:danielmwiabi@hotmail.com">danielmwiabi@hotmail.com</a>

**List of Apologies:**

NAME	ORGANIZATION	POSTAL ADDRESS	TELEPHONE & FAX	E-MAIL
Wilbrod Chansa	ZAWA-HQ	Private bag 1, Chilanga	260-01-278265 (Tel/fax)	
Choola Mfula	WECSZ	PO box 30255, Lusaka	260-01- 254630	

## Chapter 6: Appendices

### APPENDIX 1.1 : Participants Programme for the *Zambian Blue Swallow* Action Planning Stakeholder Workshop.

#### Species Action Plan Stakeholder Workshop, *Zambian Blue Swallow* *Hirundo atrocaerulea*. Lusaka, June 2003. Workshop Programme.

	Day 1 June 2003	Day 2 June 2003
8:30 – 13:00	<p>Welcome (ZOS). Introductions &amp; Expectations (SE). Explanation of workshop techniques (SE) What is a Species Action Plan? (SE) Overview of the workshop programme (SE)</p> <p>Presentation of background information (ZOS)</p> <p>Response to presentation (ZOS/SE) - any gaps? - questions &amp; answers?</p>	<p>Recap of day 1 (SE)</p> <p><b>Group work:</b> Draft the Objectives &amp; Project Concepts. - Consider the life-span of the Action Plan (3 – 5 years).</p> <p><b>Group presentations and discussions:</b> - Report back on Objectives &amp; Project Concepts. - Prioritise the Objectives.</p> <p>Agree the Vision, Aim and Immediate Objectives of the Action Plan. (SE)</p>
13:00 – 14:00	<b>LUNCH</b>	
14:00 – 18:00	<p>Identify main issues affecting implementation of a <i>Zambian Blue Swallow</i> Action Plan? (SE)</p> <p>What are the main issues (threats) affecting the <i>Zambian Blue Swallows</i>? (SE)</p> <p><b>Group work:</b> Problem tree analyses.</p> <p><b>Group presentations and discussions:</b> - Report back on problem tree. - Review brainstorm of issues. - Prioritise issues at highest level.</p> <p>Evaluation (ALL).</p>	<p><b>Group work:</b> Completion of Projects Table.</p> <p><b>Group presentations and discussions:</b> - Report back on completed Projects Table.</p> <p>Adoption of the <i>Zambian Blue Swallow</i> Action Plan.</p> <p>Monitoring &amp; Evaluation Plan What? / Why? / Who? / When?</p> <p>Evaluation (ALL).</p>

ZOS = *Zambian Ornithological Society*, SE = *Steven W. Evans*, ALL = everyone.

The Workshop was organised by the *Zambian Ornithological Society*; the *BirdLife International* Partner in *Zambia*. This project is co-ordinated, on behalf of the *BirdLife International African Species Working Group*, by *NatureUganda*, *BirdLife South Africa* and the *RSPB* (the *BirdLife Partners* in *Uganda*, *South Africa* and the *UK* respectively). The project is supported and implemented by 17 *African BirdLife* partner organisations and *RSPB* and co-funded by the *UK Department for the Environment, Food and Rural Affairs* under the *Darwin Initiative*.





**APPENDIX 1.2 : Facilitators Programme for the National Cape Parrot Action Planning Stakeholder Workshop.  
Zambian Blue Swallow Action Plan stakeholder workshop, June 2003.**

**Programme:**

<b>Date &amp; Time.</b>	<b>Time (min)</b>	<b>Activity</b>	<b>Description</b>	<b>Person responsible</b>
<b>June 2003: Day 1.</b>				
08:30 – 08:45	15	Welcome	Plenary. Brief welcome to everyone by a member of the Zambian Ornithological Society. Introduction of the facilitator.	Zambian Ornithological Society
08:45 – 09:45	60	Introductions & Expectations?	Plenary – Cards. Name, Organisation, Position, Where based?, Spp. conservation experience & Expectations of this workshop (X 3).  - Put cards with headings up on the wall.	Steven W. Evans
09:45 – 10:00	15	Explanation of workshop techniques.	Plenary – Cards & Over-heads. Explain rationale behind: - Brainstorm first; only then open discussion. - Use of Cards & flipchart.	Steven W. Evans
<b>10:00 – 10:30</b>	<b>30</b>	<b>Tea/Coffee Break</b>		
10:30 – 11:15	45	What is a Species Action Plan?	Plenary - Flipchart. Compile a definition.	Steven W. Evans
11:15 – 11:30	15	Workshop programme.	Brief overview of the entire workshop programme.	Steven W. Evans
11:30 – 12:30	60	Presentation of background information.	Plenary – Over-heads/Slides. Presentation of the information contained in the background document prepared for the workshop.	?
<b>12:30 – 14:00</b>	<b>90</b>	<b>LUNCH</b>		
14:00 – 15:00	60	Response to presentation.	Plenary – Flipchart. Questions and answers session. Identify any gaps in knowledge. Not done for threats. This will be covered by the problem tree analyses.	Steven W. Evans
15:00 – 16:00	60	What are the main issues that will affect successful implementation of the Zambian Blue Swallow Action Plan?	Plenary – Cards (Over-heads). Brainstorm the risks & opportunities (include ongoing projects). Group and discuss.	Steven W. Evans
<b>16:00 – 16:30</b>	<b>30</b>	<b>Tea/Coffee Break</b>		
16:30 – 18:00	90	What are the main issues (threats) affecting the Blue Swallow in Zambia Flufftail?	Plenary – Cards. Brainstorm, group and discuss cards.	Steven W. Evans
18:00 – 18:05		Evaluation	Happy, medium, sad face.	Steven W. Evans
<b>19:00 -</b>		<b>DINNER</b>		

<b>June 2003: Day 2.</b>				
08:30 – 09:00	30	Recap of day 1.		
09:30 – 11:30	120	Problem tree analyses.	Groups – Cards. Group 1: Decreased breeding success and increased adult mortality. Group 2: Decrease in habitat quantity and quality. Use IUCN criteria as the starting point. Tea/Coffee available at 10:30.	Steven W. Evans
11:30 – 12:30	60	Report back on problem trees. Review brainstorm on threats cards – are they all captured in the problem tree.	Plenary – Cards. Each group presents their problem tree. Discussion refinement and agreement.	Steven W. Evans
12:30 – 13:00	30	Prioritise issues (threats)	Rating of 1 (most important) to 4 (least important).	Steven W. Evans
<b>13:00 – 14:00</b>	<b>60</b>	<b>LUNCH</b>		
14:00 – 15:30	90	Draft Objectives Consider the life-span of the Action Plan (3 – 5 years).	Group – Cards. Each group drafts Objectives. Discusses the life-span of the Action Plan.	Steven W. Evans
<b>15:30 – 16:00</b>	<b>30</b>	<b>Teal/Coffee</b>		
16:00 – 17:30	90	Report back to plenary on Objectives.	Plenary. Each group presents their Objectives. Should be 4 – 8 Objectives in total. Discussion & refinement.	Steven W. Evans
17:30 – 18:00	30	Prioritise the Objectives.	Plenary. Rating of 1 (most important) to 4 (least important).	Steven W. Evans
18:00 – 18:05		Evaluation	Happy, medium, sad face.	Steven W. Evans
<b>19:00 -</b>		<b>DINNER</b>		

<b>June 2003: Day 3.</b>				
08:30 – 09:00	30	Recap of day 2.		
09:00 – 10:00	60	Agree the Vision, Aim & Immediate Objectives of the Action Plan.	Plenary – Flipchart. Use a change in the threat status of the species as a measurable outcome.	Steven W. Evans
10:00 – 11:30	90	Formulation of Project Concepts.	Groups – Cards. Project Concepts must be directed at achievement of each Objective. Should be 4 – 8 Project Concepts per Objective. Tea/Coffee available at 10:30.	Steven W. Evans
11:30 – 12:30	60	Report back to plenary on Project Concepts.	Plenary – Cards. Each group presents their Project Concepts.	Steven W. Evans
<b>12:30 – 13:30</b>	<b>60</b>	<b>LUNCH</b>		
14:00 – 15:00	60	Completion of Projects Table	Groups – Cards Headings: Policy & Legislation, Species & Habitat, Monitoring & Research, Public Awareness & Training, Community Involvement. Tea/Coffee available at 15:30.	Steven W. Evans
15:00 – 16:00	60	Report back to plenary on completed Projects Table.	Plenary – Cards. Each group presents their Project Table.	Steven W. Evans
16:00 – 17:00	60	Action Plan Monitoring & Evaluation Plan.	Plenary. Participants consider who & how and how often the Action Plan implementation will be monitored and evaluated.	Steven W. Evans
17:00 – 17:30	30	Adoption of the Action Plan.	The entire plan is reviewed. Any changes needed are discussed and made. A participant proposes the plan be adopted and seconded by another participant.	Steven W. Evans
<b>17:30 – 17:45</b>	<b>15</b>	<b>Workshop close.</b>	<b>Votes of thanks.</b>	<b>Paddy Fleming/ Steven W. Evans</b>
<b>17:45 – 18:00</b>	<b>15</b>	<b>Final Evaluation</b>	<b>Happy, medium, sad face</b>	<b>Steven W. Evans</b>

**APPENDIX 2: Considerations when describing objectives.**

**Zambian Blue Swallow Action Plan stakeholder workshop**

**OBJECTIVES:**

The objectives that are determined appropriate for the Zambian Blue Swallow Action Plan must be SMART.

**Specific** – it must be clear to everyone what needs to be done, avoid any vagueness or ambiguity.

**Measurable** – what you measure what you get. If you cannot measure whether you have achieved an objective how will you know that you have achieved it or be able to tell others that it has been achieved?

**Agreed** – consensus should be reached on each objective.

**Realistic** – can the objective be achieved in the available time, are the resources needed available or can they needed be secured in the available time?

**Timely** – a definite end time for when achievement of the objective is expected must be specified.

### **APPENDIX 3: Considerations when describing project concepts.**

## **PROJECT CONCEPTS.**

The following filters should be considered when developing project concepts for the Zambian Blue Swallow Action Plan.

- Is the project relevant?
- Does it contribute to achieving the overall aim of the Zambian Blue Swallow Action Plan?
- Does it contribute to finding a solution to a priority problem(s)?
- Does it fall within the core competencies of those responsible for implementation?
- Does it fall within the mandate of those being considered responsible for its implementation?
- Is the capacity available to do it?
- Will the project have the desired impact?
- Can funding be obtained to complete the project?
- Is the project scientifically sound?
- Are all the appropriate role players (stakeholders) involved?

Each project concept contributes to achieving an objective. Each objective contributes to achieving the aim of the Zambian Blue Swallow Action Plan. The Action Plan contributes to conserving Blue Swallow in Zambia.

## **APPENDIX 4: Profile of the *Zambian Ornithological Society*.**

### **The *Zambian Ornithological Society (ZOS)***

ZOS is one of the older NGOs registered under the Societies Act in Zambia having been in existence since the mid 1960s. The object of the Society is to stimulate interest in and to further the study and conservation of birds in Zambia. ZOS has always had a committed core membership with a high degree of technical skills capable of maintaining a constant output of high quality ornithological research which is regularly published in internal and external scientific publications. Grouped around this core of expertise is a committed and knowledgeable membership providing freely of their time towards ZOS's many activities including a monthly Newsletter and frequent walks and field outings.

### **Management**

The day to day affairs of the Society are managed by a democratically elected executive committee comprising nine members who are elected annually to office at the Annual General Meeting. The nine members of the executive committee comprise a Chair, Vice Chair, Secretary, Treasurer and five ordinary members. The tenth member of the executive committee, the Technical Advisor (TA), is not elected but co-opted and has no voting rights. The TA is selected from a small group of internationally recognised ornithologists living in Zambia. The ZOS executive committee meets monthly to conduct the formal business of the Society.

### **Operations**

A series of Working Groups each headed by a member of the executive committee carry out the main day to day functions of the Society when those functions are deemed to be in excess of the executive committee's capacity at its normal monthly meetings. These Working Groups are composed of co-opted members who have offered particular skills related to the functions of the Working Group concerned. The number of members co-opted onto the various Working Groups is not fixed but varies according to workload and the number of volunteers available. Current Working Groups are:

- Newsletter;
- Membership, Publicity and Liaison;
- Education; and
- Projects and Research.

In addition, the TA operates as a one man Analytical Working Group processing all scientific data flowing in from members in the field.

### **Activities Of ZOS**

ZOS activities include:

#### Publications

- production and/or printing of promotional material;
- publishing a monthly newsletter;
- publishing the annual Zambia Bird Report;
- publishing occasional papers such as Site Guides; and
- publishing books such as Common Birds of Zambia and *Zambian Birds not found in Southern Africa*.

#### Ongoing Projects

- Zambia BIRD Atlas Project;
- African Waterfowl Census;
- *Zambian Ringing Scheme*;

#### Maintenance of Records

- Species Status Report;
- ZOS Nesting Records;
- ZOS National Parks Bird Lists;
- ZOS Sites Lists.

#### Liaison and Advocacy

- assistance to Ministry of Education providing material for Chongololo Clubs and radio programmes;
- assistance to ZAWA on ornithological issues such as closed hunting seasons;
- liaison with external ornithological societies and institutions by exchange of Newsletters and the Annual Bird Report;
- continuous liaison with Birdlife International as ZOS progresses from BI Affiliate to BI Partner.

#### Field Trips

- organised day trips at least once a month guided by ZOS experts to farms and other interesting venues normally near Lusaka or at population centres served by a ZOS Agents; and
- organised camping trips further afield.

### **Finance**

The core functions of the Society have always been financed from member's subscriptions and other internal fund raising activities. In addition, the Society, which has gained an enviable reputation for credibility and accountability, has been successful in acquiring grant financing for specific projects such as the publication of books and journals. ZOS derives its income from the following sources:

- annual subscriptions and member's donations;
- sale of publications and promotional materials;
- grants for specific projects or publications. Recent grants have been received from the following:
  - John Voelker Bird Book Fund - Zambian Birds;
  - The Canada Fund - Zambian Birds;
  - The Paul Flew Memorial Fund - annually for the Bird Report;
  - The Royal Society for the Protection of Birds - for facilities to investigate ZOS Partnership of BI;
  - Birdlife International - travel and accommodation for ZOS representative to attend international meetings.

The Society is financially sound with annually increasing reserves and an increasing capacity to take on new minor projects subject to availability of volunteers to carry them out.