

Appendix 1.3

South African White-winged Flufftail (*Sarothrura ayresi*) Action Plan

26 – 28 June 2003, Wakkerstroom, South Africa.

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**South African White-winged Flufftail (*Sarothrura ayresi*) Action Plan
Species Action Plan Stakeholder Workshop**

26 – 28 June 2003, Wakkerstroom, South Africa.

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Executive Summary

The White-winged Flufftail *Sarothrura ayresi* is considered globally Endangered with fewer than 700 individuals remaining in suitable wetland habitats in South Africa and Ethiopia. The South African White-winged Flufftail population is considered to be Critically Endangered as it has a very small population and is only known from 10 wetland sites in the Eastern Cape, KwaZulu-Natal and Mpumalanga. A conservation plan compiled by all relevant stakeholders outlining the priority actions needed to conserve this species was therefore urgently needed.

The Middelpunt Wetland Trust, in partnership with BirdLife South Africa and the Ethiopian Wildlife and Natural History Society, coordinates conservation action aimed at conserving and increasing the White-winged Flufftail population in South Africa and Ethiopia by promoting the sustainable utilisation of its wetland habitats, for the benefit of people and their environment. BirdLife South Africa, one of the largest, most established conservation non-governmental organisations in South Africa, along with the Ethiopian Natural History Society are both Partners of BirdLife International, the largest international NGO concentrating on the conservation of birds and their habitats for the benefit of people and their environment.

The Middelpunt Wetland Trust and BirdLife South Africa held 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 held in Wakkerstroom and was attended by 22 participants representing a wide range of stakeholder groups in the key White-winged Flufftail sites in South Africa. The workshop was facilitated by BirdLife South Africa and used a species action planning workshop process developed by the BirdLife International Africa Partnership. Eskom provided the funding for the workshop.

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.

The primary issues facing the survival of the White-winged Flufftail in South Africa include continued loss of its specialised wetland habitat and disturbance to the birds.

The workshop concluded that the aim of the action plan would be that the current 9 known White-winged Flufftail sites and populations conserved and all further suspected sites and White-winged Flufftail populations identified and investigated in South Africa by 2008. In order to achieve this aim the representatives agreed on the following objectives:

- Ensure the integrity of known and suspected White-winged Flufftail wetland sites by 2008.
- The disturbance to White-winged Flufftail's at 8 sites reduced by 2008.
- To confirm that White-winged Flufftail migrates between Ethiopia and South Africa.
- The principal calls of the WWF will be determined and recorded in Ethiopia and be used in South African field studies.
- Establish a captive breeding population of White-winged Flufftail's in South Africa.

The workshop ended with discussion and agreement on the establishment of a South African White-winged Flufftail Action Group that included the Middelpunt Wetland Trust.

Acronyms/Definition

CBD: Convention on Biological Diversity.
CITES: Convention on International Trade in Endangered Species of Wild Fauna and Flora.
DACF: Department of Agriculture Conservation and Forestry.
DEAT: National Department of Environmental Affairs and Tourism.
DFID: Department for International Development (United Kingdom).
DNA testing: Deoxyribonucleic Acid testing.
DWAF: National Department of Water Affairs and Forestry.
EC: Eastern Cape.
ECZNW CCO's: Ezemvelo KwaZulu-Natal Wildlife Community Conservation Officers.
EE: Environmental Education.
EIA: Environmental Impact Assessment.
IBA: Important Bird Area.
IDP: Integrated Development Plan.
IUCN: The World Conservation Union.
KZN: KwaZulu-Natal.
LP: Limpopo Province.
MPB: Mpumalanga Parks Board.
Mpu: Mpumalanga.
MWT: Middelpunt Wetland Trust.
NGO: Non-Governmental Organisation.
NIBACS: National Important Bird Area Conservation Strategies.
NW: North West.
SACWG: South African Crane Working Group.
SAG: Species Action Group.
SAP: Species Action Plan.
SIG: Species Interest Group.
SWG: Species Working Group.

Chapter 1.

What is a White-winged Flufftail Action Plan?

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

Why an action plan for the White-winged Flufftail?

The White-winged Flufftail *Sarothrura ayresi* is considered globally Endangered with fewer than 700 individuals remaining in suitable wetland habitats in South Africa and Ethiopia. The South African White-winged Flufftail population is considered to be Critically Endangered as it has a very small population and is only known from 9 wetland sites in the Eastern Cape, KwaZulu-Natal and Mpumalanga. A conservation plan compiled by all relevant stakeholders outlining the priority actions needed to conserve this species is therefore urgently needed.

Geographic Scope.

This White-winged Flufftail *Sarothrura ayresi* is applicable to South Africa. Consultation with Ethiopian colleagues indicated that threats to this species and its habitats and especially the solutions to these are likely to be quite different for each of the countries. It was therefore decided to do two action plans for White-winged Flufftail, one for South Africa and a separate plan for Ethiopia. This plan therefore takes into account all factors affecting each of the known White-winged Flufftail sites and solutions to these as well as research work that is urgently needed.

Chapter 2. Introduction and Overview.

White-winged Flufftail

Sarothrura ayresi

Coturnicops ayresi Gurney, 1877, Potchefstroom, South Africa.

Sometimes placed in *Coturnicops*, usually with, but sometimes without, other flufftail species. Ethiopian birds first described as *Ortygops macmillani* (Bannerman 1911). Forms a species pair with *S. watersi*. Monotypic.

Synonyms: *Coturnicops ayresi*; *Ortygops macmillani*.

Alternative name: White-winged Crake.

IDENTIFICATION Length 13.5 – 14.5cm; wingspan 24cm. A small flufftail; easily identified in flight by conspicuously white secondaries; leading edge of wing also white; no white visible in folded wings. Unlike other flufftails, frequently easy to flush and often has strong, direct flight (see Habits). Uniquely in genus, female looks similar to male. Male has blackish-brown head with chestnut mottling and paler, poorly defined supercilium; neck, upper mantle and breast chestnut; chin and throat whitish; upperparts, and median upperwing-coverts, blackish, broadly streaked olive-brown and narrowly white; other upperwing-coverts plain olive-brown; tail barred black and chestnut. Flanks streaked black and white; centre of belly white; undertail-coverts chestnut, black and rufous. Iris and bill blackish; legs and feet grey to purplish-flesh. Female looks darker than male in flight; duller on head and neck; sides of head mottled buff; upper mantle streaked dark brown; white streaks on upperwings replaced by spots; upperwing-coverts more extensively spotted white. Breast whitish, tinged rufous and scaled dark; flanks spotted white. Immature duller than adult; male has white streaks of upperparts replaced by spots or bars, less chestnut on head, mantle and breast, and less white on underparts; female largely paler than adult, with fewer spots on upperwing-coverts, dark scalloping on chin and throat, and no rufous wash on centre of breast. Juvenile male dark grey-brown, mottled chestnut on head and nape, with small white spots on upperparts and upperwings; chin, throat and belly mottled grey-brown and white; tail as adult. Juvenile female blackish-brown, upperparts spotted tawny on mantle and white elsewhere; breast flecked white; throat and centre of belly white; tail as adult. Inhabits moist to flooded marsh vegetation, predominately of sedges and grasses.

Similar species. Easily separable from other *Sarothrura* species, and from all other sympatric marsh-dwelling birds, by white secondaries. On the ground, when this white is not visible, both sexes superficially resemble dull versions of the male of sympatric marsh and grassland *Sarothrura* species. All ages distinguished from both sexes of all these species, except female Striped Flufftail, by chestnut and black bars on tail; female Striped differs markedly in having paler upperparts with buff scallops and bars, no rufous on hindneck, upper mantle or breast, and different head pattern.

VOICE All information on calls comes from South Africa (Taylor 1994, P B Taylor unpubl.) unless otherwise stated. The common call is a low-pitched *oop* note, repeated every second and continued for up to 3 minutes; it is often given in asynchronous duet, the second bird having a higher-pitched note. Calling usually occurs for up to 15 minutes (occasionally 40 minutes), at dawn and dusk. This call is very similar to a roosting call of the Crowned Crane *Balearica regulorum*, which, however, is louder, usually a double note or a more complex series, and is often given by several birds together.

Other calls, rarely heard, include deep mooing notes, which are indicative of agitation or aggression in response to taped playback of the *oop* call, and high-pitched short and long hoots. No advertising or territorial calls have been recorded from breeding birds in Ethiopia, but chicks make a loud, plaintive and rather harsh cheeping and a female, when separated from chicks, called to them with quiet quacking notes and occasionally gave quiet gulps, low grunts and subdued *crk-crk* calls (P B Taylor unpubl.).

DESCRIPTION Some confusion surrounds description of different age classes of this species because of the paucity of museum material and the incorrect ageing of some specimens. For example, an “adult female” (Durban Museum) from Franklin, Natal (Mendelsohn *et al* 1983) is in full juvenile plumage, while an “immature female” (BMNH) from Sululta, Ethiopia, dated 22 Sep 1948 (Keith *et al* 1970) is a male moulting from natal down to juvenile plumage.

Adult male. Forehead to nape blackish-brown, proximal half of feathers edged dark chestnut; hindneck and upper mantle dark chestnut; feathers tipped blackish-brown. Lower mantle, back, scapulars and median upperwing-coverts blackish, each feather fringed olive-brown on distal half and with fine white submarginal streak on each web. Lesser and greater coverts olive-brown with vaguely darker centres and no white streaks; some lesser may have small white spots and some greater vague white submarginal streaks; alula and primary coverts similar, with no white markings except occasionally a

few on lesser; marginal coverts white. Primaries dark grey-brown to olive-brown, outer web of outermost primary (P10) whitish on basal three-quarters, outer webs of others sometimes with small buffy spots; inner webs of primaries become progressively paler; P1 brownish-white to white on most of inner web. First secondary olive-brown at base, white on inner web, and mottled brownish and white on outer web; rest of secondaries white, olive-brown basally; first tertial (T1) similar but variably spotted olive-brown on inner web, or patterned as described for T2; T2 olive-brown with variable white spots and bars, or like T3; T3 as scapulars. Axillaries and underwing-coverts greyish-white, olive-brown basally and variably along outer webs. Rump blackish-brown, feathers with narrow, white submarginal streaks or spots; uppertail-coverts and retrices barred black and chestnut. Lores and anterior ear-coverts blackish-brown; rest of sides of head, and sides of neck, dark chestnut, feathers narrowly tipped blackish giving scaly pattern; vague superciliary streak paler chestnut. Chin and upper throat whitish, washed pale chestnut at sides; lower throat, foreneck and sides of breast brighter chestnut; centre of chest pale chestnut; upper flanks like mantle but white streaks broader; lower flanks, thighs and sides of belly broadly streaked black and white; centre of belly white; undertail-coverts chestnut and black, widely tipped pale rufous. Iris dark brown to brownish-black; bill dark brown, or blackish with grey cutting edge; legs and feet grey, or brown to purplish-flesh.

Adult female. Similar to male but more blackish-brown, less rufous, on head and neck; sides of head mottled buff; upper mantle dark chestnut with dark brown feather centres, giving streaked effect. White streaking of upperparts and upperwings replaced by spots or short bars, except on back; all secondary coverts, and lesser primary coverts, usually have white markings. Sides of neck and sides of breast paler chestnut than in male; centre of breast whitish, tinged rufous-brown; dark mottling and scaling usually extend all across breast; flanks black, spotted white; undertail-coverts tinged pale rufous. Iris as male, or ashy hazel; legs and feet as male, or dusky pink.

Immature male. Less chestnut on head than adult; mantle feathers have broader brownish tips. White streaks on upperwing-coverts of adult replaced by spots; lesser, greater, and primary coverts have variably darker centres, with white spots on secondary coverts (most prominent on greater) and variable small whitish spots on lesser primary coverts. Face darker than adult, having almost no chestnut; sides of breast less extensively chestnut; underparts less extensively white, centre of belly being washed grey; undertail-coverts more uniformly dull rufous. Legs and feet purplish-flesh.

Immature female. Upperparts paler and browner than in adult; head and mantle duller; upperwing-coverts duller, with less distinct pale fringes and fewer spots; chin and throat less contrastingly white, with some dark scalloping; neck and breast duller; no rufous wash across centre of breast. Flanks paler and duller than adult, with less contrasting spots and bars; undertail-coverts tinged whitish. Iris sometimes black; bill dark horn; legs and feet may be dark brown with greenish tinge.

Juvenile male. (One specimen, Ethiopia.) Head and neck predominantly dark grey-brown with dull chestnut mottling; hindneck, sides of neck and mantle grey-brown, washed dull chestnut; rest of upperparts, including upperwings, darkish brown with small white spots. Breast and rest of underparts dull grey-brown, mixed grey-brown and white on chin, throat, centre of breast and most of belly; undertail-coverts faintly tinged rufous; tail as adult. Iris grey.

Juvenile female. (One specimen, South Africa.) Blackish-brown with small tawny spots on mantle and small white spots on rest of upperparts (except head and neck), whitish flecks on breast, and white throat and centre of belly; tail as adult.

Downy young. Down black. Iris blackish brown, eyelids grey; proximal half of bill pinkish-white, distal half ivory, colours separated by Imm-wide black band in front of nostril; legs and feet grey-black.

MEASUREMENTS Wing of 14 males 73-80 (76.3), of 11 females 75-80 (76.9); tail of 8 males 35-40 (36.1, SD 1.6), of six females 35-43 (38.2 SD 3.3); culmen to base of 13 males 12-13.5 (12.4), of 11 females 12-13.5 (12.5); tarsus of 14 males 17-19.5 (18.5), of 11 females 16-20 (18.5). Weight of 1 male 31.8, of 1 chick, 2-3 days old, 5.4 (P B Taylor unpubl.).

GEOGRAPHICAL VARIATION Despite the great distance separating this bird's two centres of occurrence, and the lack of records from most of the intervening regions (see Movements), there appears to be no significant morphological differences between South African and Ethiopian populations.

MOULT An adult female flushed in the former Transvaal, South Africa, in February had a gap in the remiges of one wing, indicating moult (Taylor 1994). Adults in Ethiopia, late July, are in very fresh plumage (P B Taylor unpubl.).

DISTRIBUTION AND STATUS Ethiopia, where formerly known from highlands around Addis Ababa (Sululta Plain, Akaki, Entotto and Gefersa), and at a lower elevation to the SW at Charada, Kaffa; Zimbabwe (Harare area); and South Africa (highlands of KwaZulu-Natal and former Transvaal; also recorded Free State and formerly at coastal localities in E Cape and KwaZulu-Natal). There is one reliable record from Zambia, near Chingola, Solwezi District (Brooke 1964). Sound records from Rwanda (Dowsett-Lemaire 1990) are questionable, sonographic analysis indicating that they are calls of the Crowned Crane (Taylor 1994). This globally ENDANGERED and CITES 1 species is one of the rarest and least

known African endemics. From 1939 to 1957 small numbers were recorded occasionally in the Ethiopian highlands; subsequently one bird was seen near Sululta in August 1984 and 4 in Aug-Sep 1995, while an estimated 10-15 breeding pairs were present in August 1996 (Taylor 1996a). In August 1997 a breeding population of at least 200 pairs was found in seasonal and permanent marsh at a new locality near Addis Ababa and it is probable that the species was widespread and locally numerous in the central Ethiopian highlands before intensive human pressure destroyed most of its seasonal marsh habitat (Taylor 1997b). It was recorded in Zimbabwe in Jan-Mar 1997 and 1979 (Hopkinson & Masterson 1984), and possibly bred there in the 1950s (Taylor 1994). In South Africa it was recorded only sporadically after its discovery in 1876, and since the early 1950s 5 highland sites in S KwaZulu-Natal and E Transvaal, South Africa, have held small numbers (maximum overall annual counts 22-29 birds), three of these sites annually in 1990-1992, when regular observations were made. Recent surveys (Taylor 1997a) have identified 5 more sites in the Free State and KwaZulu-Natal where this bird probably occurs annually and the total population at the 10 known sites may be 235 birds. In South Africa the lack of recent records from coastal localities suggests that it may now be confined to the higher-altitude wetlands (Taylor 1994).

This bird's habitats are under severe threat from damming, draining and overgrazing, and its future is precarious (Taylor 1997c). Very large areas of breeding habitat in Ethiopia have been destroyed by overgrazing, trampling and sedge cutting (Taylor 1997b). However, an assumed threat to one remaining site from a proposed dam (Atkinson *et al* 1995) is unfounded (Taylor 1997b). Much suitable breeding habitat in Ethiopia could be re-established by encouraging local communities to manage and utilize wetland resources more effectively (Taylor 1997b), e.g. by restricting early grazing, delaying the cutting of fodder until Oct-Dec (which would also increase the yield from seasonal marshes), and (in Jul-Sep) by encouraging the development of alternative sources of freshly cut vegetation used for feeding dairy cattle in Addis Ababa (EWNHS 1996) and for floor covering; some compensation for local communities for loss of revenue early in the season might have to be provided. In KwaZulu-Natal, critically important wetlands are now threatened by desiccation as a result of commercial afforestation in their catchments, as well as by damming, draining, water abstraction, disturbance and annual burning followed by intensive spring grazing (Taylor 1997a).

MOVEMENTS The apparent lack of subspeciation has been thought to indicate that regular migration occurs between the bird's Ethiopian and South African centres of distribution but the paucity of records from intervening regions, and an overlap in occurrence dates, make this unlikely (Collar & Stuart 1985), while birds may be present throughout the year at one recently discovered marsh near Addis Ababa (Taylor 1997b). However, there may be periodic long-distance dispersal when numbers are high, allowing gene exchange between the N and S populations. Records from Zambia (Nov 1962) and Zimbabwe (Jan-Mar in 1977 and 1979) may reflect such dispersal, and the species is possibly an occasional breeding migrant in Zimbabwe. Much breeding habitat in the C Ethiopian highlands, where most occurrences are recorded from Jun-Sep, is seasonal marsh and is thus unsuitable in the non-breeding season when migration may occur SW to lower-altitude, permanent marshes such as those at Charada, Kaffa (in the Jimma area), whence there is a May specimen (Taylor 1994, 1996a). Guichard (1948) suggested that males arrive in breeding areas before females. In South Africa, where recent records suggest that the species is normally migratory or nomadic, it is recorded from Aug-Mar and in May (Taylor 1994).

HABITAT Most information is from Taylor (1994, 1996a). Ethiopian breeding habitat is seasonal; dense, lush, rapidly growing vegetation, 20-50cm (usually 20-40cm) tall, on firm ground which is flooded to a depth of 20cm (usually to 10cm). Dominant plants include sedges (*Cyperus rigidifolius*, *C. afroalpinus* and *Eleocharis marginulata*), grasses (*Pennisetum schimperi* and *P. thunbergii*) and forbs such as *Ubelinia kigesiensis*, *Trifolium calancephalum*, *Ranunculus multifidus*, *Rumex marginulata*, *Haplocarpha schimperi*, and a *Polygonum* species. Sedges and short grasses tend to dominate in the more shallowly flooded sites, which lie in depressions and at the bases of shallow slopes above seasonal wetlands, as well as within the wetlands themselves. Forbs and taller grasses dominate in the more deeply flooded areas of taller vegetation within the wetlands. In Zimbabwe, birds were recorded from grass 50-100cm tall on dry to moist ground and also from muddy to shallowly flooded marshy ground with grass (*Leersia*, *Hemarthria* and *Cynodon dactylon*) and sedge (including *Cyperus digitatus*) cover (see Hopkinson and Masterson 1984). In Zambia, one bird was found in a pan-like marsh with emergent grass (Brooke 1964). Non-breeding birds in South Africa occur for short periods alongside breeding Red-chested Flufftails (3) in dense hygrophilous grasses (predominantly *Leersia* but also *Andropogon*, *Paspalum*, *Eragrostis*, *Hemarthria*, *Arundinella* and *Aristida*), sedges (*Pycreus*, *Kyllinga*, *Fuirena*, *Eleocharis*, *Schoenoplectus*, *Mariscus*, *Carex* and *Cyperus*) and rushes *Juncus* spp. Averaging 1m tall, on moist to shallowly flooded substrates, and for up to 4 months in dense sedges (principally *Phragmites australis* and reed-mace *Typha capensis*, 1-2m tall, on moist to deeply flooded ground not commonly inhabited by Red-chested Flufftails. It has been recorded breeding alongside the Red-chested Flufftail in Ethiopia, occupying typical seasonally flooded vegetation types while the Red-chested occurred in adjacent taller, sedge-dominated, permanently wet areas (P B Taylor unpubl.). In Ethiopia it occurs at

2,200-2,600m in the central highlands, and at 1,100m in the SW. It is recorded at 1,300-1,400m in Zambia and Zimbabwe; in South Africa it occurs mostly at 1,100-1,900m and has been recorded rarely at c. 150m in coastal areas.

FOOD AND FEEDING Stomach contents are recorded as water insects, grain seeds and 'vegetable mush'. Recent studies in Ethiopia (Taylor 1996a, 1997b) have provided the following information. Adults take earthworms, small freshwater crustaceans, and the adults and larvae of aquatic and terrestrial insects such as Lepidoptera, Coleoptera (including Chrysomelidae) and Diptera. Small chicks are fed on crustaceans, Coleoptera (including Dytiscidae larvae) and Diptera (including large prey such as Tipulidae and Tabanidae larvae over 2cm long). In the breeding habitat birds forage along muddy cattle tracks, at shallow pools, and at patches of cut vegetation and other small open areas in the dense cover, taking insects and other invertebrates from moist ground, mud and shallow water, and from flattened and low-growing vegetation; both adults and chicks apparently also forage in more deeply flooded vegetation. Foraging has been observed from early to mid-morning and in the late afternoon.

HABITS All information is from Taylor (1994, 1996a). This species is diurnal and crepuscular; most activity is recorded from early to mid-morning and from late afternoon to dusk, but birds may be flushed at any time of the day, and in light to moderate rain. In South Africa no activity has been recorded during the hours of darkness, when calling does not occur and birds do not respond to taped playback. In tall, flooded vegetation the birds are extremely difficult to observe, normally remaining within dense cover, but in short, sparse vegetation they may be glimpsed on the ground just before they take flight. Response to taped playback is often poor, but in tall, dense reedbeds the birds will sometimes approach to within 1-2m of an observer, calling and climbing around c. 1.5m up in the vegetation but remaining invisible and impossible to flush. However, in shorter vegetation this species is often easy to flush, rising up to 30m, in front of the observer, remaining airborne for up to 200m and often circling around to fly past the observer. In such circumstances the flight is strong and direct, with legs retracted, neck outstretched and rapid, shallow wingbeats. However, this species has a weak, fluttering, typical flufftail flight, with dangling legs. The birds normally climb to the top of dense, short vegetation before taking flight. In Ethiopian breeding areas, recently arrived birds, and probably those in the early stages of incubation, flush fairly easily and make low flights of 2-40m. Birds with chicks are extremely difficult to flush and may even be caught by hand. Before taking flight, birds on the ground pause briefly with open wings, possibly as a signal to other individuals.

SOCIAL ORGANISATION apparently monogamous. In South Africa, observation of calling patterns and reactions to taped playback suggest that the birds may be territorial in non-breeding habitat in which residence is prolonged (Taylor 1994). In Ethiopia breeding birds occur at a density of c. 2-4 pairs/ha and no territorial activity has been recorded from birds with nests and young chicks (Taylor 1996a, 1997b).

SOCIAL AND SEXUAL BEHAVIOUR Non-breeding birds in short vegetation appear to move constantly around occupied wetlands, all the birds apparently remaining in loose association with each other (Taylor 1994).

BREEDING AND SURVIVAL Season Nest-building and egg-laying occur in Ethiopia during long rains, Jul-Aug; a juvenile, South Africa, Nov, probably from egg laid Aug (Taylor 1994). Despite claims to the contrary, there is as yet no acceptable evidence that the species breeds in South Africa (Taylor 1994). **Nest** In Ethiopia, nests are probably built in sedge- and grass-dominated vegetation 20-40cm tall, over water up to 10cm deep. Description of nest and eggs from a villager in Ethiopia (Taylor 1996a) agrees in most respects with observations made at Mazowe, Zimbabwe, in 1950s (probably Feb), where 2 unidentified clutches, each of three eggs, were found on seasonally flooded ground; nests were shallow cups of grass built in reedy vegetation 10-12cm above water 30cm deep, with growing vegetation pulled over them in a dome. **Eggs** Eggs from these nests were ovate, white, sparsely spotted grey-brown and olive-green, markings most numerous in ring at blunt end; size of 1 egg 27 x 20 (Taylor 1994). Following information is from Taylor (1996a). **Chicks** Both sexes apparently feed and care for chicks. Adults lead observers away from young chicks by running through short vegetation, often across open patches, and hiding briefly in dense cover. Observations in Ethiopia suggest that birds commence nesting immediately after arrival in breeding habitat in late July, early August, and that the entire breeding cycle may occupy as little as 6 weeks, after which all birds may leave breeding habitat, which may have become unsuitable as a result of damage from grazing, trampling and cutting. Some birds may be able to raise a second brood elsewhere, before end of Oct, in late-developing habitat. Natural predation of eggs and young may be low at Ethiopian breeding sites.

Taken from "Rails, a guide to the Rails, Crakes, Gallinules and Coots of the World" by Barry Taylor and Ber van Perlo, published in 1998 by Pica Press.

Chapter 3.

Action Plan.

<p>Aim The current 9 known White-winged Flufftail sites and populations conserved and all further suspected sites and White-winged Flufftail populations identified and investigated in South Africa by 2008.</p>	<p>Indicator</p> <ul style="list-style-type: none"> • All known sites protected by having reserve/other protected status or with management plans implemented by landowners. • Flufftail populations stable or increasing at all sites. • All suspected sites described, mapped and surveyed.
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Objectives	Indicator
1. Ensure the integrity of known and suspected White-winged Flufftail wetland sites by 2008.	<ul style="list-style-type: none"> • All sites given some form of protection through being incorporated into reserves, being leased/bought or having a management agreement made with the landowners. • Management plans implemented for all sites. • All sites regularly monitored.
2. The disturbance to White-winged Flufftail's at 8 sites reduced by 2008.	<ul style="list-style-type: none"> • Adoption of management plans for all sites. • Increased protection where applicable (fencing, notices etc). • Effective law enforcement and monitoring of all sites.
3. To confirm that White-winged Flufftail migrates between Ethiopia and South Africa.	<ul style="list-style-type: none"> • Isotope analysis done on all available specimen material from both countries and analysis of results completed. • Genetic analysis done on all available material and analysis of results completed. • Occurrence dates recorded for all sites in both countries and comparisons made.
4. The principal calls of the WWF will be determined and recorded in	<ul style="list-style-type: none"> • Tape of calls produced and

Ethiopia and be used in South African field studies.	circulated to all survey groups in SA.
5. Establish a captive breeding population of White-winged Flufftail's in South Africa.	<ul style="list-style-type: none"> • At least two pairs established in one aviary. • Birds breeding successfully, with satisfactory survival of young

Projects Table.

Legend:

Cost:

X = R0 - R10000

XX = R 11000 – R 20000

XXX = R 20000 – 30000

XXXX = > R 30000

Priority

X = low

XX = medium

XXX = high

XXXX = critical

Table 1. Objectives and project concepts.

Project	Provinces	Priority	Agencies Responsible	Time Scale	Cost	Indicators	Risks & Opportunities
1. Ensure the integrity of known and suspected White-Winged Flufftail wetland sites by 2008.							
Identify and integrate with current initiatives e.g: MWP, DWAF, Ekangala, Working For Water/Wetlands, DACF, Dept. Agric Prov. Cons Agencies, SACWG, NGI, Forestry companies, Eskom.	Mpu, FS, KZN, EC, NW & GP	X	WWF-WG co-ord	Aug 2003 – Dec 2008	XXXX	1. Adoption of Action plan in day-to-day activities 2. Improve law enforcement 3. Commitment of agencies to working group	R: Not priority for government.
Modelling & ground truthing (DEAT/ DWAF project: priorities) to prioritise White-winged Flufftail habitat by end of 2004	National	XX	W.F Wetlands, Prov. Cons agencies (KZN, Mpu, FS) WWF-WG co-ord.	June 2003 – Dec 2004	XXXX	1. Habitat identified and mapped	O: Boosts conservation value of habitat O: Enables Conservation & bioregional planning R: Scale is not implementable
Collection, collation and assessment of available relevant data in order to establish a resource base.	Mpu etc.	XXX	WWF – WG co-ordinator and Barry Taylor	Aug 2003 – Dec 2008	XXXX	1. Resource base will be in place & accessible	O: Information available to stakeholders O: Information also available for input to conservation projects on other species sharing same habitats/sites. R: Reliability of information R: Incompatibility of different data bases
Increase public and stakeholder awareness regarding	National & provinces	XXXX	WWF – WG in partnership with	Dec 2003 – Dec 2008	XXXX	1. Reduction of wetlands destruction	R: Non co-operation of landowners

management of wetlands (including media strategy).			MWT, DEAT, DWAF, etc. Sharenet.			2. Landowner agreement incentives in place 3. Management plans reflect sound wetland conservation	R: Increased public awareness of sites may lead to increased pressure on sites, habitat and birds. O: Getting the message across to all levels of society
Land acquisition and leasing agreements and landowners incentives.	Mpu etc.	XXXX	WWF – WG co-ordinator, Bot Soc, DEAT, MPB Unique communities	Dec 2003 – Dec 2008	XXXX	1. Land purchased 2. Agreements signed	R: Non co-operation R: Lac of funds O: Increased conservation areas R: Lack of policy and legislation
Rehabilitation and restoration of wetlands.	MPU etc	XXXX	WWF – WG co-ordinator, WF wetlands, Working for Water etc.	Aug 2003 – Dec 2008	XXXX	1. Increased biodiversity in wetlands 2. Improved system function 3. Less erosion	R: Funding O: Work opportunities & poverty elimination R: destruction of WWF habitat

Project title	Province	Priority	Agencies responsible	Time Scale	Cost	Indicators	Risk & Opportunities
2. The disturbance to White-winged Flufftail's at 8 sites reduced by 2008							
Approach landowners to make them aware of the importance of the White-winged Flufftail sites on their land and gain their support. - Personal contact. - Farmers Day – open day. - Fairs & talks. - Media.	KZN, FS, Mpu	XXX	White-winged Flufftail Action Group, Involving: Middelpunt Wetland Trust, BirdLife South Africa, South African Crane Working Group, Working for Wetlands/Water, Local Conservation	Aug 03 – Aug 08	Entire project (all activities) R 100,000	- When we see user groups are involved. - When we have sponsors involved. - Media involvement.	R: Non acceptance by user-groups. R: Lack of funding. R: Lack of human resources. R: Over-exposure of sites to public. R: Inaccurate media coverage. O: Excitement / public awareness. O: Enthusiasm of group. O: Environmental interest already there to build on.

			Agencies, DEAT, Local Councils, DWAF, Ekangala				O: Tourism attraction. O: Media reporting & exposure, must be approved & accurate. O: Good reporting can create excitement and awareness. O: Funding possibilities.
To reduce the number of people who partake in bird-watching , hunting , fishing at the White-winged Flufftail sites. - Personal contact. - Workshops. - Media. - Public exposure during Wetlands Day, - Fairs & talks. - Local Councils.	KZN, FS, MPU	XX	White-winged Flufftail Action Group, Involving: Middelpunt Wetland Trust, BirdLife South Africa, South African Crane Working Group, Working for Wetlands/Water, Local Conservation Agencies, DEAT, Local Councils, DWAF, Ekangala	Aug 03 – Aug 08		- When we see user groups are involved. - When we have sponsors involved. - Media involvement.	R: Non-acceptance by user-groups. R: Lack of funding. R: Lack of human resources. R: Over-exposure of sites to public. R: Inaccurate media coverage. O: Excitement / public awareness O: Enthusiasm of group. O: Environmental interest already there to build on. O: Tourism attraction. O: Media reporting & exposure, must be approved & accurate. O: Good reporting can create excitement and awareness. O: Funding possibilities.
Identify all other user groups and approach them in the same way as the land-owners in regard to the utilization of the resources such as water, reeds, sedge, medicinal plants and grazing. - Personal contact. - Farmers Day – open day. - Fairs & talks. - Media.	KZN, FS, MPU	XXX	White-winged Flufftail Action Group, Involving: Middelpunt Wetland Trust, BirdLife South Africa, South African Crane Working Group, Working for Wetlands/Water,	Aug 03 – Aug 08		- When we see user groups are involved. - When we have sponsors involved. - Media involvement.	R: Non-acceptance by user-groups. R: Lack of funding. R: Lack of human resources. R: Over-exposure of sites to public. R: Inaccurate media coverage. O: Excitement / public awareness. O: Enthusiasm of group.

			Local Conservation Agencies, DEAT, Local Councils, DWAF, Ekangala				O: Environmental interest already there to build on. O: Tourism attraction. O: Media reporting & exposure, must be approved & accurate. O: Good reporting can create excitement and awareness. O: Funding possibilities.
Landowners and user groups to be encouraged to prevent their cats and dogs from entering the White-winged Flufftail sites. - Personal contact. - Farmers Day – open day. - Fairs & talks. - Media.	KZN, FS, MPU	X	White-winged Flufftail Action Group, Involving: Middelpunt Wetland Trust, BirdLife South Africa, South African Crane Working Group, Working for Wetlands/Water, Local Conservation Agencies, DEAT, Local Councils, DWAF, Ekangala	Aug 03 – Aug 08		- When we see user groups are involved. - When we have sponsors involved. - Media involvement.	R: Non-acceptance by user-groups. R: Lack of funding. R: Lack of human resources. R: Over-exposure of sites to public. R: Inaccurate media coverage. O: Excitement / public awareness. O: Enthusiasm of group. O: Environmental interest already there to build on. O: Tourism attraction. O: Media reporting & exposure, must be approved & accurate. O: Good reporting can create excitement and awareness. O: Funding possibilities.
Assist landowners to apply Natural Heritage Site approval (conservation stewardship program). - Personal contact. - Farmers Day – open day. - Fairs & talks. - Media.	KZN, FS, MPU	XXX	White-winged Flufftail Action Group, Involving: Middelpunt Wetland Trust, BirdLife South Africa, South African Crane Working Group,	Aug 03 – Aug 08		- When we see user groups are involved. - When we have sponsors involved. - Media involvement.	R: Non-acceptance by user-groups. R: Lack of funding. R: Lack of human resources. R: Over-exposure of sites to public. R: Inaccurate media coverage. O: Excitement / public.

			Working for Wetlands/Water, Local Conservation Agencies, DEAT, Local Councils, DWAF, Ekangala				O: Enthusiasm of group. O: Environmental interest already there to build on. O: Tourism attraction. O: Media reporting & exposure, must be approved & accurate. O: Good reporting can create excitement and awareness. O: Funding possibilities.
The White-winged Flufftail Action Group opposes all future proposals of developments in the near vicinity of White-winged Flufftail sites through the EIA process and other as applicable.	KZN, FS, MPU	XXXX	White-winged Flufftail Action Group, Involving: Middelpunt Wetland Trust, BirdLife South Africa, South African Crane Working Group, Working for Wetlands/Water, Local Conservation Agencies, DEAT, Local Councils, DWAF, Ekangala	Aug 03 – Aug 08		- When we see user groups are involved. - When we have sponsors involved. - Media involvement.	R: Non-acceptance by user-groups. R: Lack of funding. R: Lack of human resources. R: Over-exposure of sites to public. R: Inaccurate media coverage. O: Excitement / public awareness. O: Enthusiasm of group. O: Environmental interest already there to build on. O: Tourism attraction. O: Media reporting & exposure, must be approved & accurate. O: Good reporting can create excitement and awareness. O: Funding possibilities.
Awareness information dissemination.	National	XX	White-winged Flufftail Action Group	Aug 03 – Aug08	0	Monitoring: - of number of people - of damage to wetland - and report back by landowners/others - scientists tip-toeing through wetlands!	

Project title	Province	Priority	Agencies Responsible	Time Scale	Cost	Indicators	Risk & Opportunities
3. To confirm that White-winged Flufftail migrates between Ethiopia and South Africa.							
Determination of the origin of White-winged Flufftail specimen material from isotope analyses.	S A and Ethiopia	XXXX	University of Natal & Pietermaritzburg, Durban National Science Museum, ADU, EWNNS/ ENCO.	03 June to 04 June	XXXX	Origin known results	R: Lost in Post R: Permits R: Quality of feathers no good R: Inconclusive result. R: Uncertain cost O: Cost sharing. O: Help to plan conservation strategy.
Determination of the origin of White-winged Flufftail specimen material from genetic analysis (DNA).	S A Ethiopia	XXXX	UNP,DNSM,PFI NO,EWNHS / ENCO	June 03 to June 04.	XXXX	Origin known results	R: Getting hold of material (same as above).
Regular and comprehensive South African surveys of all known & potential White-winged Flufftail sites during summer (mainly November to March) to search for and count the species (simultaneous count of all sites same day).	S A	XXXX	UNP, DNSM, BLSA members other conservation NGO's, Middelpunt Wetland Trust (Pointers) Gov Conservation Agencies/Mpu /FS /KZN	2003-2008	XXXX	2-4 Visits / sites per an. 9 known sites and serve 6 potential 150-300 site visits in total after 5 years.	R: High effort no return. R: Lack of dedication and interest amongst surveyors. O: Data on other wetland species. R: Wetland damage.
All specimen material to be photographed, information recorded on the date, location, age, month, breeding condition,							

weight, measurement, sex and wing-shape. Data sheet to be compiled and distributed.							
4. The principal calls of the WWF will be determined and recorded in Ethiopia and be used in South African field studies.							
Recording will be done in Ethiopia.	South Africa and Ethiopia	XXXX	EWNHS, EWCO and Middelpunt Wetland Trust.	July 03 – July 04	XXXX	- Tape of calls produced - Copied and distributed to all South African survey groups.	R: Failure in July to August 2003 Ethiopian trip to obtain recording /weather, wind rain, etc R: Equipment fail. R: Lack of co – op of Ethiopians O: Opportunity to train Ethiopians to record the calls. Isolated sounds not recorded before that could lead to more information.
Local Ethiopians will be trained and equipped to do the necessary data recordings.	South Africa and Ethiopia		EWNHS, EWCO and Middelpunt Wetland Trust.	July 03 – July 04	XXXX	- Tape of calls produced - Copied and distributed to all South African survey groups.	R: Failure in July to August 2003 Ethiopian trip to obtain recording /weather, wind rain, etc R: Equipment fail. R: Lack of co – op of Ethiopians O: Opportunity to train Ethiopians to record the calls. Isolated sounds not recorded before that could lead to more information.
Recordings of calls distributed to South African Bird Cubs and field survey done.	South Africa and Ethiopia		EWNHS, EWCO and Middelpunt Wetland Trust.	July 03 – July 04	XXXX	- Tape of calls produced - Copied and distributed to all South African survey groups.	R: Failure in July to August 2003 Ethiopian trip to obtain recording /weather, wind rain, etc R: Equipment fail. R: Lack of co – op of Ethiopians O: Opportunity to train Ethiopians to record the calls. Isolated sounds not recorded before that could

							lead to more information.
5. Establish a captive-breeding population of White-winged Flufftail's in South Africa.							
Obtaining permits to export the White-winged Flufftails out of Ethiopia and import them into South Africa.	KZN, Mpu	XXXX	UNP, DNSM, EWNHS, BLSA, KZN Wildlife, Aviculturalists, Tree Haven Waterfowl Trust	June 03 – 2008.	XXXX	Have two pairs in captivity by the end 2004 and 4 individuals by 2008.	R: Funding/ without funding wont be possible R: Mortality /Failure to breed in captivity * Realize into wild ? * Catching wild birds? *Permits (maybe with) O: Education O: Tourism O: Research O: Conservation O: Awareness O: Fundraising
Capture two pairs in Ethiopia and transport them to South Africa.							
Set up infrastructure in the appropriate place.							
Based on experience gained; establish a large captive population from the two pairs.							
Development of tourist and educational infrastructure at the captive breeding site.							

Monitoring and Evaluation Plan

What? & Why? The monitoring and evaluation plan is needed to determine whether activities are progressing according to schedule. Obtaining information on the progress made with regards to the completion of the activities and using this information in conjunction with the indicators it is possible to assess how far we have proceeded with implementing the action plan and achieving the aim and objectives outlined in it. Monitoring and evaluating progress made on a regular basis means that priorities can be assessed and adjusted when required. It serves as a basis for keeping everyone informed as to what is happening.

Who? It was agreed that this is the task of the chair of the White-winged Flufftail Action Group. The task involves co-ordinating the monitoring and evaluation, which includes financial reporting.

How & How often? Annually every April. The White-winged Flufftail Action Group chair would circulate the table for monitoring and evaluating implementation of the White-winged Flufftail 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 chair. The White-winged Flufftail Action Group chair would then collate the information into one table for distribution to all members and stakeholders of the White-winged Flufftail Action Group and other interested organisations and individuals. The chair should also use the most up-to-date table to report on progress to meetings of the White-winged Flufftail Action Group.

Table 2. Monitoring and evaluating implementation of the White-winged Flufftail Action Plan.

Project	Provinces	Priority	Agencies Responsible	Time Scale	Completion date	Cost	Indicators	Remarks
1. Ensure the integrity of known and suspected White-Winged Flufftail wetland sites by 2008.								
Identify and integrate with current initiatives e.g: MWP, DWAF, Ekangala, Working For Water/Wetlands, DACF, Dept. Agric Prov. Cons Agencies, SACWG, NGI, Forestry companies, Eskom.	Mpu, FS, KZN, EC, NW & GP	X	WWF-WG co-ord	Aug 03 – Dec 08		XXXX	1. Adoption of Action plan in day-to-day activities 2. Improve law enforcement 3. Commitment of agencies to working group	
Modelling & ground truthing (DEAT/ DWAF project: priorities) to prioritise White-winged Flufftail habitat by end of 2004	National	XX	W.F Wetlands, Prov. Cons agencies (KZN, Mpu, FS) WWF-WG co-ord.	June 03 – Dec 04		XXXX	1. Habitat identified and mapped	
Collection, collation and assessment of available relevant data in order to establish a resource base.	Mpu etc.	XXX	WWF – WG co-ordinator and Barry Taylor	Aug 03 – Dec 08		XXXX	1. Resource base will be in place & accessible	
Increase public and stakeholder awareness regarding management of wetlands (including media strategy).	National & provinces	XXXX	WWF – WG in partnership with MWT, DEAT, DWAF, etc. Sharenet.	Dec 03 – Dec 08		XXXX	1. Reduction of wetlands destruction 2. Landowner agreement incentives in place 3. Management plans reflect sound wetland conservation	
Land acquisition and leasing agreements and landowners incentives.	Mpu etc.	XXXX	WWF – WG co-ordinator, Bot Soc, DEAT, MPB Unique communities	Dec 03 – Dec 08		XXXX	1. Land purchased 2. Agreements signed	
Rehabilitation and restoration of	MPU etc	XXXX	WWF – WG co-	Aug 03 –		XXXX	1. Increased	

wetlands.			ordinator, WF wetlands, Working for Water etc.	Dec 08			biodiversity in wetlands 2. Improved system function 3. Less erosion	

Project title	Province	Priority	Agencies responsible	Time Scale	Completion date	Cost	Indicators	Remarks
2. The disturbance to White-winged Flufftail's at 8 sites reduced by 2008								
Approach landowners to make them aware of the importance of the White-winged Flufftail sites on their land and gain their support. - Personal contact. - Farmers Day – open day. - Fairs & talks. - Media.	KZN, FS, Mpu	XXX	White-winged Flufftail Action Group, Involving: Middelpunt Wetland Trust, BirdLife South Africa, South African Crane Working Group, Working for Wetlands/Water, Local Conservation Agencies, DEAT, Local Councils, DWAF, Ekangala	Aug 03 – Aug 08		Entire project (all activities) R 100,000	- When we see user groups are involved. - When we have sponsors involved. - Media involvement.	
To reduce the number of people who partake in bird-watching , hunting , fishing at the White-winged Flufftail sites. - Personal contact. - Workshops. - Media. - Public exposure during	KZN, FS, MPU	XX	White-winged Flufftail Action Group, Involving: Middelpunt Wetland Trust, BirdLife South Africa, South	Aug 03 – Aug 08			- When we see user groups are involved. - When we have sponsors involved. - Media involvement.	

Wetlands Day, - Fairs & talks. - Local Councils.			African Crane Working Group, Working for Wetlands/Water, Local Conservation Agencies, DEAT, Local Councils, DWAF, Ekangala				
Identify all other user groups and approach them in the same way as the land-owners in regard to the utilization of the resources such as water, reeds, sedge, medicinal plants and grazing. - Personal contact. - Farmers Day – open day. - Fairs & talks. - Media.	KZN, FS, MPU	XXX	White-winged Flufftail Action Group, Involving: Middelpunt Wetland Trust, BirdLife South Africa, South African Crane Working Group, Working for Wetlands/Water, Local Conservation Agencies, DEAT, Local Councils, DWAF, Ekangala	Aug 03 – Aug 08			- When we see user groups are involved. - When we have sponsors involved. - Media involvement.
Landowners and user groups to be encouraged to prevent their cats and dogs from entering the White-winged Flufftail sites. - Personal contact. - Farmers Day – open day. - Fairs & talks. - Media.	KZN, FS, MPU	X	White-winged Flufftail Action Group, Involving: Middelpunt Wetland Trust, BirdLife South Africa, South African Crane Working Group, Working for Wetlands/Water,	Aug 03 – Aug 08			- When we see user groups are involved. - When we have sponsors involved. - Media involvement.

			Local Conservation Agencies, DEAT, Local Councils, DWAF, Ekangala					
Assist landowners to apply Natural Heritage Site approval (conservation stewardship program). - Personal contact. - Farmers Day – open day. - Fairs & talks. - Media.	KZN, FS, MPU	XXX	White-winged Flufftail Action Group, Involving: Middelpunt Wetland Trust, BirdLife South Africa, South African Crane Working Group, Working for Wetlands/Water, Local Conservation Agencies, DEAT, Local Councils, DWAF, Ekangala	Aug 03 – Aug 08			- When we see user groups are involved. - When we have sponsors involved. - Media involvement.	
The White-winged Flufftail Action Group opposes all future proposals of developments in the near vicinity of White-winged Flufftail sites through the EIA process and other as applicable.	KZN, FS, MPU	XXXX	White-winged Flufftail Action Group, Involving: Middelpunt Wetland Trust, BirdLife South Africa, South African Crane Working Group, Working for Wetlands/Water, Local Conservation Agencies, DEAT, Local	Aug 03 – Aug 08			- When we see user groups are involved. - When we have sponsors involved. - Media involvement.	

			Councils, DWAF, Ekangala					
Awareness information dissemination.	National	XX	White-winged Flufftail Action Group	Aug 03 – Aug08		0	Monitoring: - of number of people - of damage to wetland - and report back by landowners/others - scientists tip-toeing through wetlands!	

Project title	Province	Priority	Agencies Responsible	Time Scale	Completion date	Cost	Indicators	Remarks
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Determination of the origin of White-winged Flufftail specimen material from isotope analyses.	S A and Ethiopia	XXXX	University of Natal & Pietermaritzburg , Durban National Science Museum, ADU, EWNNS/ ENCO.	03 June to 04 June		XXXX	Origin known results	
Determination of the origin of White-winged Flufftail specimen material from genetic analysis (DNA).	S A Ethiopia	XXXX	UNP,DNSM,PFI NO,EWNHS / ENCO	June 03 to June 04.		XXXX	Origin known results	
Regular and comprehensive South African surveys of all known & potential White-winged Flufftail sites during summer (mainly November to March) to search for and count the species (simultaneous count of all sites same day).	S A	XXXX	UNP, DNSM, BLSA members other conservation NGO's, Middelpunt Wetland Trust (Pointers) Gov Conservation Agencies/Mpu /FS /KZN	2003-2008		XXXX	2-4 Visits / sites per an. 9 known sites and serve 6 potential 150-300 site visits in total after 5 years.	
All specimen material to be photographed, information recorded on the date, location, age, month, breeding condition,								

weight, measurement, sex and wing-shape. Data sheet to be compiled and distributed.								
4. The principal calls of the WWF will be determined and recorded in Ethiopia and be used in South African field studies.								
Recording will be done in Ethiopia.	South Africa and Ethiopia	XXXX	EWNHS, EWCO and Middelpunt Wetland Trust.	July 03 – July 04		XXXX	- Tape of calls produced - Copied and distributed to all South African survey groups.	
Local Ethiopians will be trained and equipped to do the necessary data recordings.	South Africa and Ethiopia		EWNHS, EWCO and Middelpunt Wetland Trust.	July 03 – July 04		XXXX	- Tape of calls produced - Copied and distributed to all South African survey groups.	
Recordings of calls distributed to South African Bird Cubs and field survey done.	South Africa and Ethiopia		EWNHS, EWCO and Middelpunt Wetland Trust.	July 03 – July 04		XXXX	- Tape of calls produced - Copied and distributed to all South African survey groups.	
5. Establish a captive-breeding population of White-winged Flufftail's in South Africa.								
Obtaining permits to export the White-winged Flufftails out of Ethiopia and import them into South Africa.	KZN, Mpu	XXXX	UNP, DNSM, EWNHS, BLSA, KZN Wildlife, Aviculturalists, Tree Haven Waterfowl Trust	June 03 – 2008.		XXXX	Have two pairs in captivity by the end 2004 and 4 individuals by 2008.	
Capture two pairs in Ethiopia and transport them to South Africa.								
Set up infrastructure in the appropriate place.								
Based on experience gained; establish a large captive								

population from the two pairs.								
Development of tourist and educational infrastructure at the captive breeding site.								

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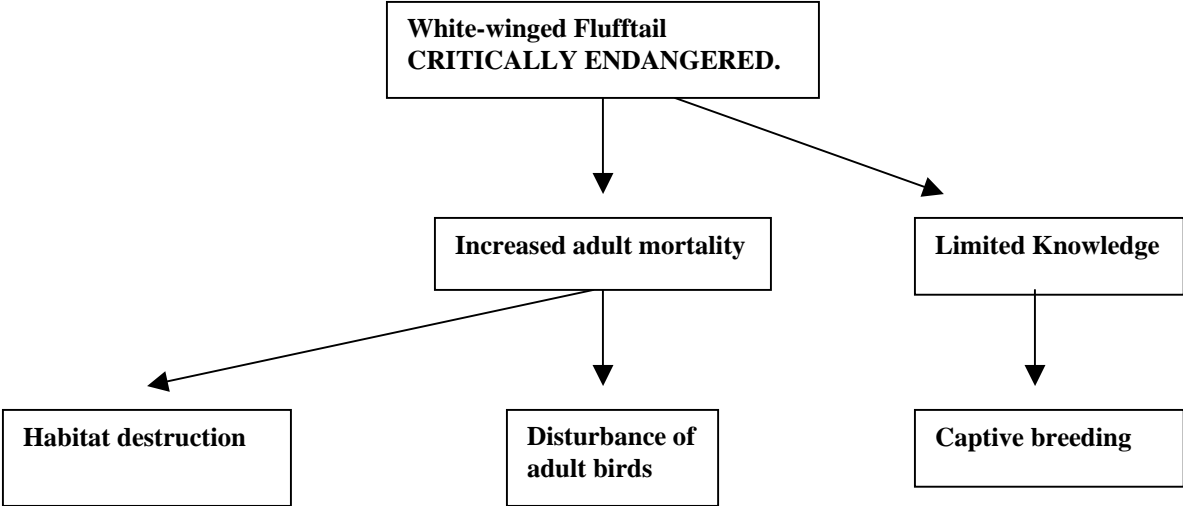
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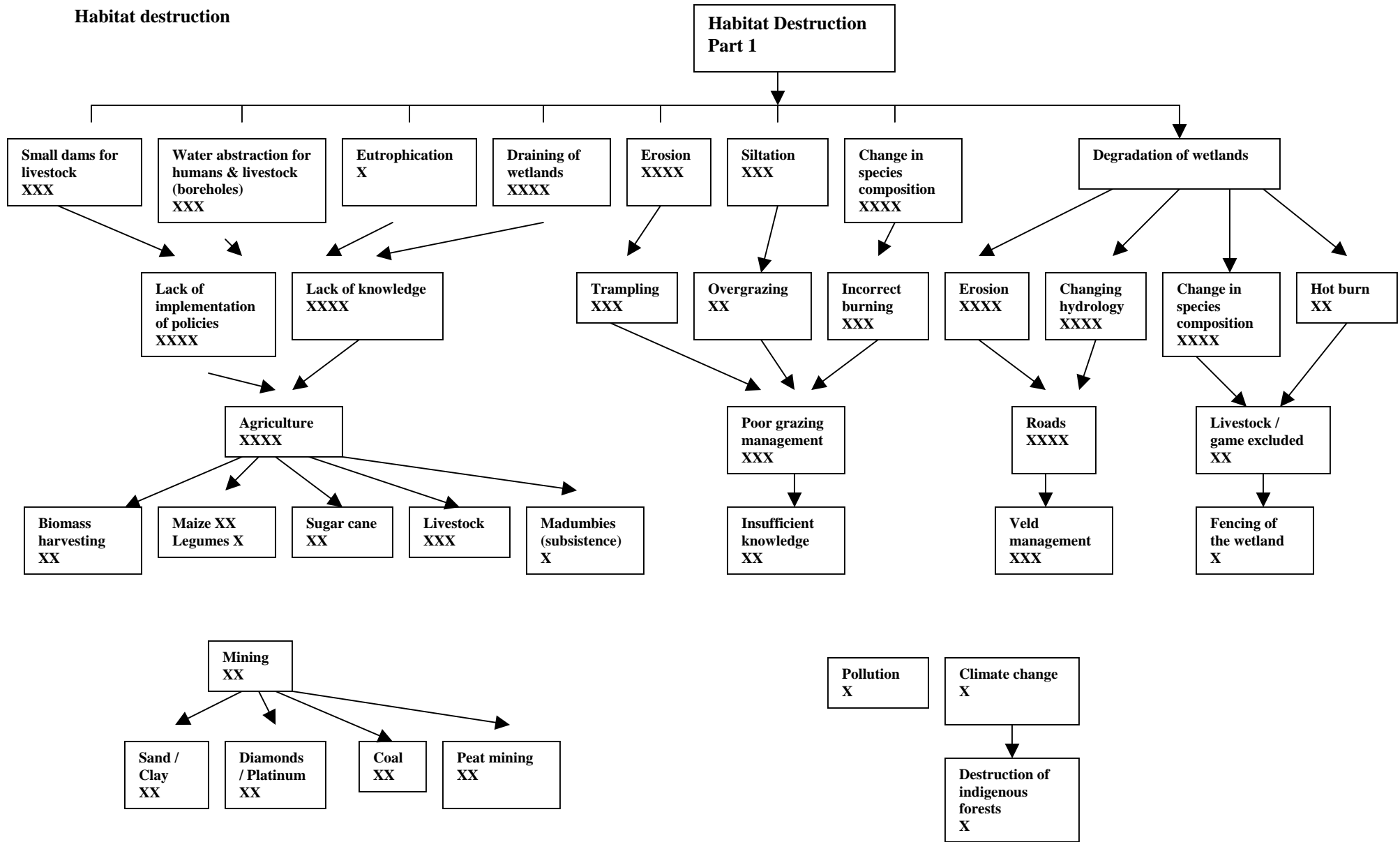
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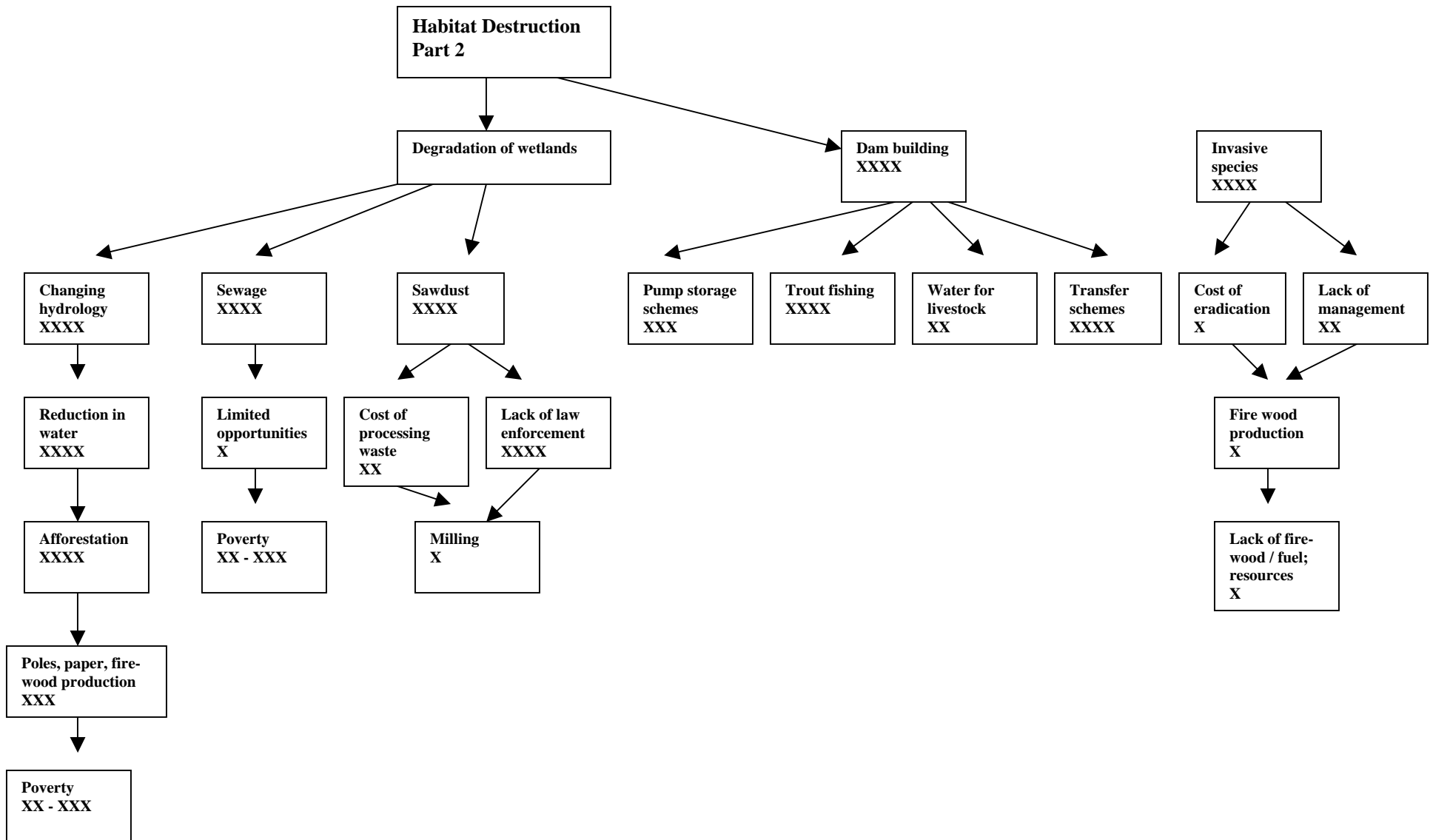
Chapter 4.

Problem tree

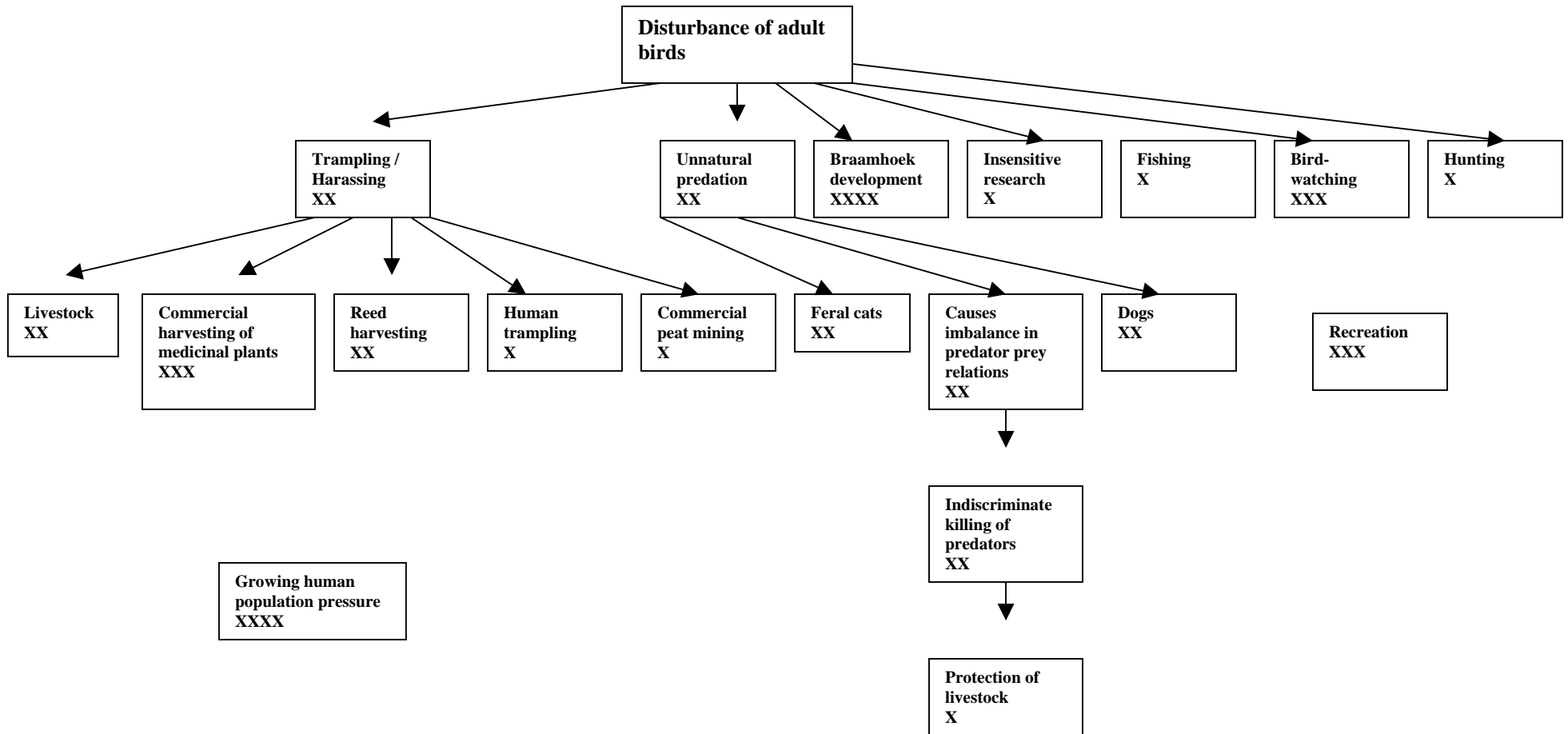


Habitat destruction

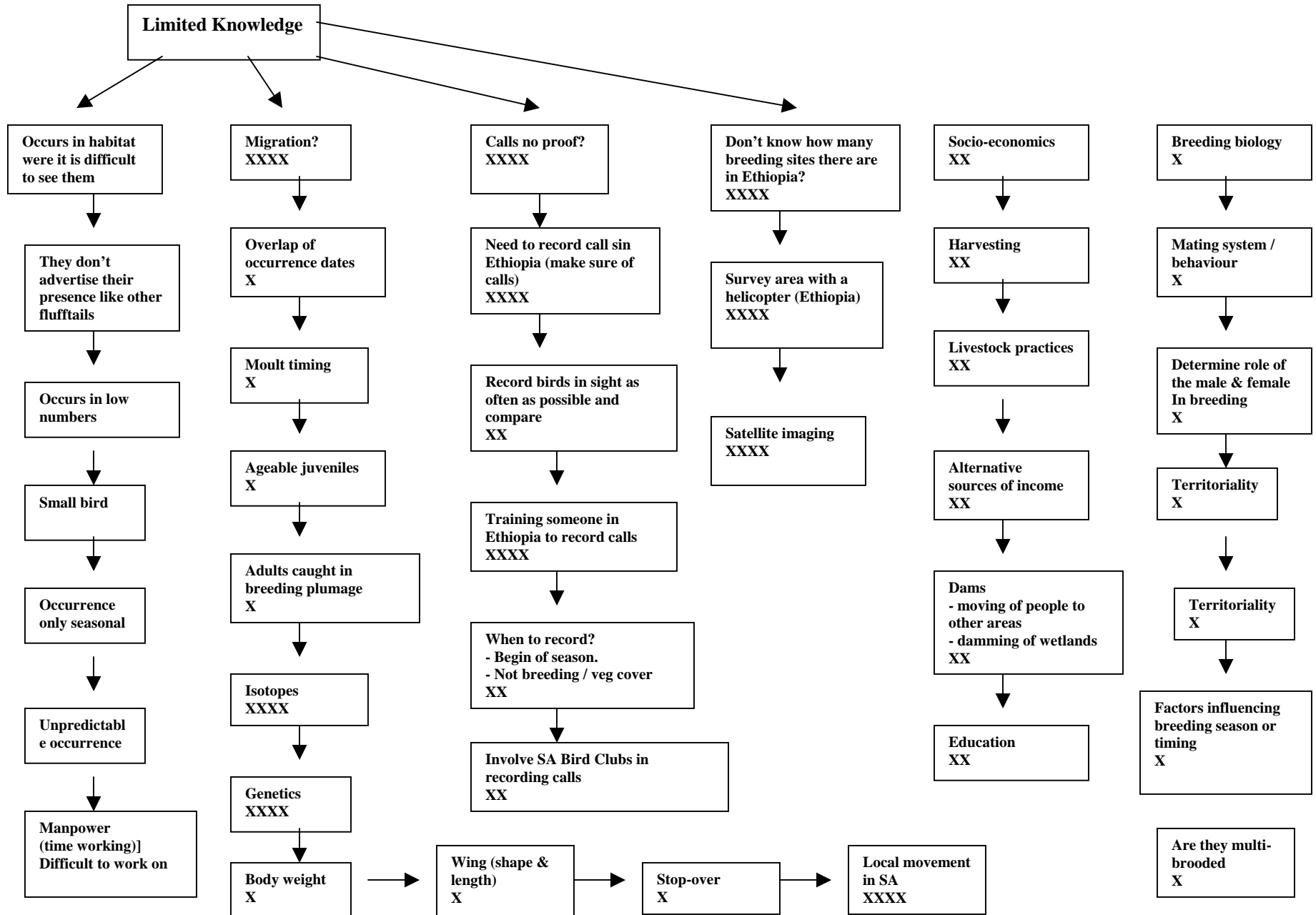




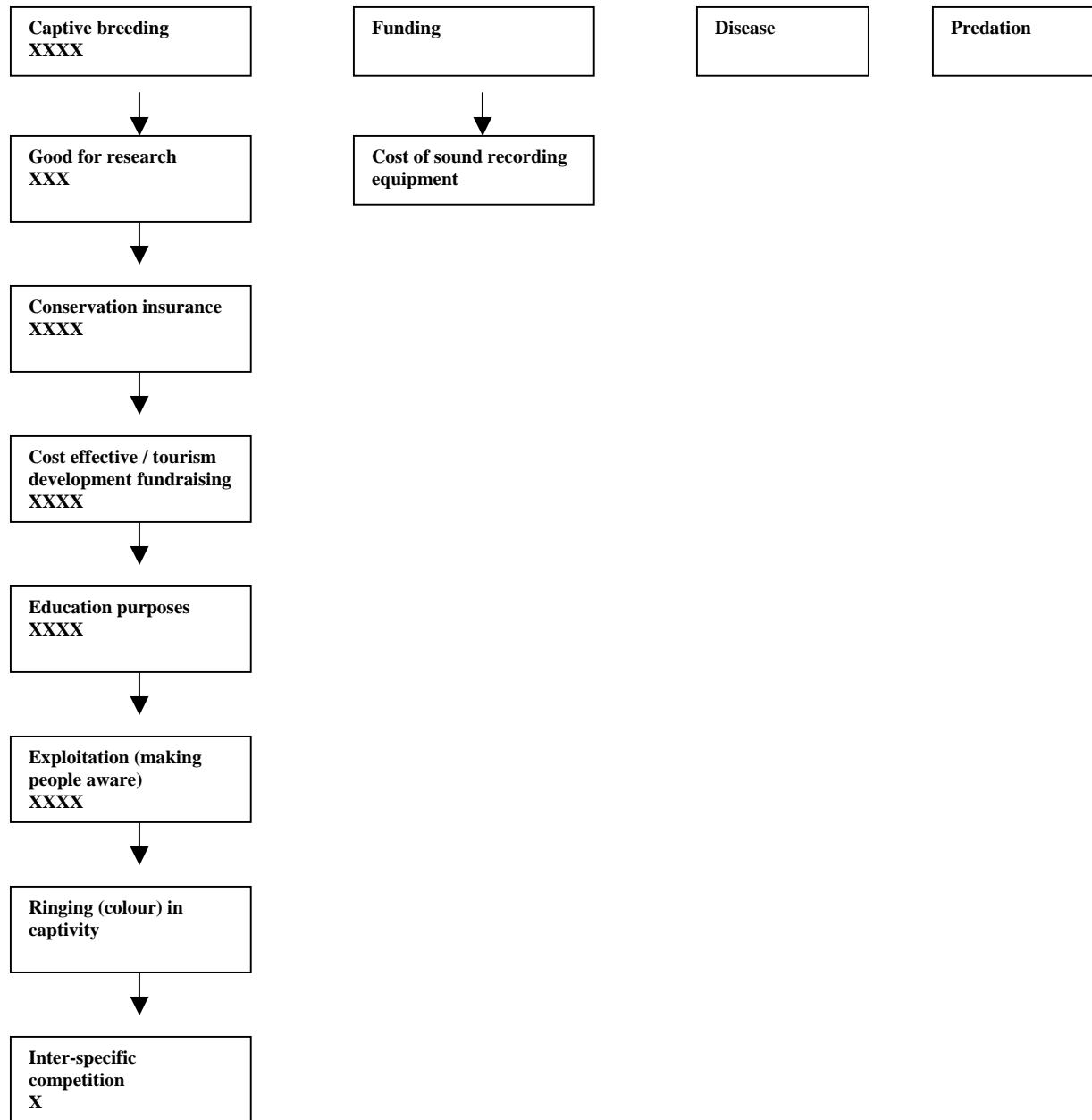
Disturbance of adult birds



Limited knowledge



Captive breeding



Chapter 5.

Issues affecting successful implementation of a White-winged Flufftail Action Plan.

Opportunities	Risks
Greater public participation & education & awareness & WWF existence.	Institutional differences in terms of conservation & profit
Active involvement of concerned landowners.	Lack of co-op among stakeholders
Creating awareness	Not enough co-operation amongst relevant stakeholders
Amount of interest currently being shown towards birds & bird conservation	Lack of national co-operation
Educating local people.	That it may not be considered a priority (political will)
Enthusiasm interested parties.	Lack of communication
Goodwill of land owners	Difficulty in obtaining data on WWF and movement
Increased awareness of grassland / wetlands	Lack of knowledge + - the WWF
Group Enthusiasm	Lack of scientific data on the bird (not enough known).
More people to learn about their natural heritage.	Lack of essential base-line information on the biology & ecology of the bird.
Population topic wetland habitat.	Uncertainties in our knowledge of the bird.
Co-operation with land-owners.	Lack of knowledge.
Greater awareness through this workshop & published species action plan.	Lack of knowledge about the species.
Money, Education	Ignorance.
Willingness by large business to donate funds to research.	Apathy due to poor visibility.
Funding.	What bird?
Financial backing.	Insufficient funding (Logistical constraints).
Sourcing funds to buy/ protect known sites.	Insufficient funding to implement the plan.
Eskom potential funding	Insufficient funding
Having bigger comp involved in the conservation e.g. Eskom	Funding manpower
Funding.	Funds to implement.
To give opportunity to more young scientists to explore unknown.	Lack of financial support.
Research.	Funding.
Expertise (Available)	Lack of funding.
Joint management and monitoring of the species.	Funding
Arising of research opportunities well directed	Change of land ownership/ land use.
Spin-off for other species.	If more people know about WWF then if they look they may disturb birds/ habitats
Links to other wetland conservation projects e.g. Wattled Crane.	Constant & we present threat towards natural habitats i.e. wetlands & grassland.
Better cooperation between at least two African Continent countries.	Access to habitat.
Acknowledgement of the importance & the conservation status of WWF by national govt.	Landowner involvement.
Further development of Ethiopian linkage.	Change in land ownership of known WWF sites.
Effective implementation of wetland conservation policy.	Publication of details on site may lead to birders destroying sites.
Influential NGO involvement.	Squatters
That the national biodiversity bill will give the action plan.....	Land resettlement programmes.
Biodiversity bill and bio regional planning.	Inability to protect key SA wetlands

Partnership establishment.	Take focus away from other Endangered species.
Relevant policies drawn up.	Manpower and time to implement.
Formation of the partnership between Eskom, BirdLife SA and Middlepunt Wetland Trust.	Lack manpower.
The fact that there is a concrete action plan on the table.	Manpower to implement.
	Shortage of manpower.
	Insufficient staffing in Provincial & National Departments.
	Capacity.
	Lack of capacity in conservation agencies.
	Lack of perseverance of dedicated people.
	Political instability.
	Potential uncertainties of Ethiopian situation.
	External factors affecting populations.
	Creating unrealistic expectations.

Chapter 6.

Workshop Participants.

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Ester v.d Westhuizen	PU For CHE	P O Box 635 Parys 9585	072 335 0273	Whitebackednightheron@netmail.com
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Piet-Louis Grundling				
Malcolm Drummond	Middelpunt Wetland Trust	P.O. Box 47410, Parklands, 2121	Tel: 011 789 1122	publicrelations@birdlife.org.za

People invited that did not attend and apologies.

Surname	First Name	Organisation
Blom	Jurie	Owner, Bedford
Brand	Leone	Owner, Penny Park
Campher	Connie	Owner, Murphy's Rust
Campher	Kiewiet	Owner, Chatsworth
Campher	Martin	Owner, Chatsworth
de Jager	Willem	Owner, Chatsworth
Downing	Rod	Farmer near Franklin
Jansen	Frederick	Owner, Vanger (called Anfred)
Long	Phillip	Owner, Franklin
Scott	Andrew	Owner, Hebron
Kotze	Donovan	Wetland Specialist, University of Natal
Willemse	Gert	DEAT, National
Hughes	Sharon	Policy & Legislation, KZN
Allan	Sarah	Chief Directorate, DEAT, KZN
Green	Richard	DWAF, Mpumalanga
Batchelor	Garth	DACE, Mpumalanga
Collins	Nacelle	DEAT, Free State
Nuttall	Rick	Director, Free State Museum
Lowry	Pat	Extension Officer, KZN Wildlife
Law	Richard	Spoornet
Gilson	Mark	Sawmill Owner, Franklin
Gemmell	Malcolm	BirdLife Sisonke
O'Grady	Janis	Crane Working Group, KZN
Brenchley	Pat	BirdLife KZN, Regional
Brown	Mark	BirdLife, Midlands
Herbst	Deidre	Eskom
Morrison	Kerryn	Crane Working Group
Tarboton	Warwick	Trustee, Middelpunt Wetland Trust
Underhill	Les	Trustee, Middelpunt Wetland Trust
de Witt	Sandra	Trustee, Middelpunt Wetland Trust

Chapter 7.

Participant Goals and Hopes.

Name	Organization	Position	Where based	Expectations of this workshop
Malcolm Drummond	Middelpunt Wetland Trsut	Trustee	Johannesburg	An Effective and feasible long term species action plan A broader understanding of the threats to and needs of WWF across provincial & national agencies Creation of a wider network for implementation of the species action group
Lientjie Cohen	Mpumalanga Parks Board	Zoologist	Lydenburg	Workable/ Implementable plan. Plan incorporated into broader conservation initiative.
Koos de Wet	Mpumalanga Parks Board	Head: Terrestrial Ecosystem Services	Lydenburg	Action Plan
Christine Lambrechts	Enkangala Grassland Trust	Project co - ordinator	Wakkerstroom	Concise data to enable conservation planning for my project area. Establish & Co –ordinate networks to enable conservation of WW Flufftail & related wetlands
Peter Arderne	Dullstroom Trout Farm Middelpunt	Director	Johannesburg	How can we benefit from Middlepunt W.T. How can we assist Middlepunt W. T
Ester v.d Westhuizen	Univ of Potchefstroom	M.sc student working on WBNH	Parys Free State	Learn more about single s conservation. Impl a workable Action plan
Pamela Kershaw	Dept of Environmental Affairs & Tourism	Environmental Officer	Pretoria	To learn about The White Winged Flufftail. To understand how important it is to conserve this SP. To take this SP. Action plan & give it to the relevant people in DEAT to get national support
David Allan	Durban Natural Science Museum	Scientific Officer: Ornithology	Durban	Do we have sufficient info to effectively conserve WWF's. What's the most reliable way of finding WWF's? Do they (WWF's) migrate S.A – Ethiopia? What the best way to conserve WWF's?
Nigel Anderson	BLSA	Project Manager	Wakkerstroom	Get a better understanding of the problems with the WWF. Find out what I can do to help
Steven W Evans	BLSA	Species & site Unit Manager	Johannesburg (SAA/BA/KQ)	Produce a realistic implementable plan to conserve the WWF. Exchange knowledge and experience. Further strengthen the conservation network in S A
Frans Krige	DACE / MPB	Environmental Manager	Dullstroom	To understand habitat requirements of WWF. To help formulate conservation action plan for

				WWF/ Habitat. To gain more info on WWF – Habits/ food source/ migration etc.
Brian D Colahan	Free State Tourism Environment & Economic Affairs	Ornithologist	Bloemfontein	Information on how to survey the species. Guidance on conservation actions in the Free State
Peter Nelson	Eskom	S. Consultant Corp. Sustainable	Johannesburg	Realistic Plan. Ensure Conservation state. Learn more
Deon Coetzee	Middlepunt Wetland Trust	Chairman of Trustees	Sandton Gauteng	Constructive Scientific plan for future research. Commitment by “New Institutions” to assist with research of WWF.
Jimmy Scott	East Hebron Farm	Owner	East Griqualand	Learn about vlei management for Flora & Fauna conservation
Vusi Ximba	Forester	DWAF (IFM)	Nelspruit	Locality of Species. Integrated management of species (stakeholder). Roles of all stakeholders-management.
Glenn Ramke	S A Crane Working Group Wakkerstroom Natural Heritage Assn.	Field Officer Chairperson	Wakkerstroom	Some realistic action plans. That there will be follow up of those plans
Alistair McInnes	Durban Natural Science Museum	Research Assistant	Durban	Gain insights into current knowledge on WWF’s & factors influencing their conservation.
Lorraine Scott	Hebron Vlei	Farmer’s Wife	East Griqualand	Learn a lot.
Barry Taylor	Honorary Research Fellow	University of Natal	Pietermaritzburg	Establish what has been achieved. Plan conservation of habitats co- ordinate research & conservation throughout bird’s range
Gerrie Camacho	Mpumalanga Parks Board	Terrestrial Zoologist	Lydenburg	Understand process of action plan. Form part of process understand vision. Understand more of sp. Contribute to credible conservation of species.
Anton Linstrom	Mpumalanga Parks Board	Wetland Ecologist	Lydenburg	More about bird. Character of wetland habitat. Contribution
M G Jakavula	Dept of Water Affairs & Forestry	Scientific Service (Planning) KWT(E Cape)	East Hebron	Workable action plan. Well research programmes. Time

Chapter 8.

APPENDIX 1: New information not made available during the workshop.

The following information was not made available during the South African White-winged Flufftail Action Plan stakeholder workshop. It has been included here as it may influence and require revising decisions on the implementation of certain aspects of the South African White-winged Flufftail Action Plan.

THE IMPORTANCE OF SOUTH AFRICAN MIRES AS HABITAT FOR THE ENDANGERED WHITEWINGED FLUFFTAIL (*SAROTHRURA AYRESI*)

P. Barry Taylor and Piet-Louis Grundling

Introduction

Flufftails (genus *Sarothrura*) are members of the avian family Rallidae (for a review of all species, see Taylor & van Perlo, 1998). Flufftails are small (length 13.5-17 cm) rails inhabiting dense ground vegetation of wetlands, grasslands, forest and dense bush. They are extremely shy and difficult to observe, usually being located only by their very distinctive calls. Seven of the nine species are confined to Africa and two to Madagascar. Most species are predominantly sedentary, but two are intra-African migrants. Two species are globally Endangered (Stattersfield & Capper, 2000), the Slenderbilled Flufftail (*S. watersi*) of Madagascar and the Whitewinged Flufftail (*S. ayresi*) of Ethiopia and Southern Africa (Fig. 1), which is regarded as Critically Endangered in South Africa (Taylor, 2000).

South Africa is predominantly an arid country and the average annual rainfall of 497 mm is well below the average of 860 mm for the world (Cowan, 1995). Water is a scarce commodity and peatlands are thus recognised as rare and unique features in the South African landscape. Peatlands occur mostly in the relatively well watered eastern and southern parts of the country, ranging from coastal, subtropical inter-dune mires of the KwaZulu-Natal and Mozambique Coastal Plain to temperate highveld sponges on the central plateau (Grundling and Mazus, 1998). These regions are also the most densely populated rural areas in South Africa and Gauteng Province in the highveld is the most urbanised and industrialised region. The highveld areas in Mpumalanga Province are severely impacted by mining, commercial afforestation and agriculture, while wetlands and grasslands in KwaZulu-Natal are being increasingly impacted by commercial afforestation, agriculture and wetland destruction/modification.

The Whitewinged Flufftail: distribution, habitat and ecology

The only known populations of this enigmatic rail occur in highland marshes near Addis Ababa, Ethiopia, and (4,000 km to the south) in mainly highland marshes of eastern South Africa (Taylor, 2000). In Ethiopia the species breeds in July-August, in high-altitude seasonal marshes dominated by grasses, forbs and short sedges; it is assumed to be a long-distance migrant because it is recorded from the breeding areas only in June-September, outside which period there is only one Ethiopian record, from a lower-altitude permanent reed/sedge marsh in May (Taylor, 1994; Taylor 1999; Taylor & van Perlo 1998).

South African records of the Whitewinged Flufftail fall mainly within the period October-March inclusive, with one record in early May, three in August and two in September (Taylor, 1994; Taylor & van Perlo, 1998; P.B. Taylor unpubl. obs.). There are also records from Zimbabwe in January-March 1977 and 1979, and one from Zambia in November 1962 (Taylor, 1994). The Whitewinged Flufftail is assumed to migrate from Ethiopia to southern Africa (principally South Africa) during the nonbreeding season, as there is little overlap in occurrence dates between its two centres of distribution and also because there is no evidence that the species breeds anywhere in southern Africa, where it occurs mainly in tall, permanent reed and sedge marshes which are very different to its breeding habitat in Ethiopia.

In South Africa (Fig. 2) it is found throughout its period of occurrence in permanent marshes on moist to shallowly flooded ground with dense sedgebeds 1-2 m tall, dominated principally by *Carex* species (especially *C. acutiformis*) but also *Cyperus fastigiatus*; such sedgebeds are often mixed with *Phragmites australis* and *Typha capensis* (Taylor, 2000; Taylor & van Perlo, 1998). It also occurs for short periods, usually early in the rainy season (November-December) in seasonally to permanently wet sedge meadow and hygrophilous grassland dominated by *Cyperus*, *Fuirena*, *Eleocharis*, *Pycnus*, *Schoenoplectus* and *Mariscus* spp., rushes (*Juncus* spp.) and grasses, especially *Leersia hexandra* (Taylor & van Perlo, 1998).

The Ethiopian breeding population is estimated at 210-215 pairs, confined to two marshes (Taylor & van Perlo, 1998). In South Africa, the Whitewinged Flufftail was recorded only sporadically after its discovery in 1876, but from the early 1980s small to moderate numbers have occurred at four high-altitude wetlands, Franklin vlei, Lakenvlei, Penny Park and Wakkerstroom (Taylor 1994; Taylor 1997a) - see Table 1. In the late 1990s, surveys identified five more sites where the birds occur regularly in small to moderate numbers, Hebron, Murphy's Rust, Vanger, Watervalvlei and Seekoeivlei (Taylor, 1997a; Taylor, 1997b) – see Table 1. The South African population is estimated at about 200-250 birds (Table 1; Taylor, 1997a).

The recently-documented high-altitude distribution of the Whitewinged Flufftail in South Africa is not unexpected in view of its correspondingly high-altitude distribution in Ethiopia. However, there are also a few historical records from eastern coastal South Africa. In the Eastern Cape the species was recorded from KingWilliamsTown in August 1876, Cambridge in September 1956 and East London in September 1955 and October 1956, while there is also a mention of its occurrence, presumably in the late 19th Century, in “vleis around Durban”, KwaZulu-Natal (Stark & Sclater, 1906; Taylor, 1994). The lack of recent records from coastal localities has been taken to suggest that the species no longer occurs at the coast, possibly as a result of habitat destruction (Taylor, 2000). However, as a result of wetland surveys made in 1995/96 (Taylor, 1997b), several potentially suitable sites for Whitewinged Flufftails were located in northern coastal KwaZulu-Natal. Visits to this region in November-December 2002 confirmed the presence of Whitewinged Flufftails at the Mfabeni wetland (see Table 1), potentially the most suitable of these sites (P.B. & R. Taylor, unpubl. obs.).

The known habitat preferences and distribution of the Whitewinged Flufftail indicate that, in South Africa, the species occurs most regularly and commonly in wetland types that favour the accumulation of peat (Table 1). Some of the sites mentioned above are peatlands with 5 to 10 m of peat, while others are mires with thin layers of recently accumulated peat.

Nine of the ten important sites for the Whitewinged Flufftail fall within the Eastern Uplands, Great Escarpment Mountains and Highveld peatland eco-regions (see Table 1, sites 1-3 and 5-10). The distribution of peatlands within these eco-regions could thus serve as a template to determine a broader distribution range for the Whitewinged Flufftail. The discovery of the Mfabeni site (Table 1, site 4), as recorded in this contribution, clearly establishes the Natal Coastal Plain as another important distribution centre for the species.

Table 1: South African sites at which the Whitewinged Flufftail occurs regularly and/or in significant numbers.

Site/ map no.	Name of Site	Peatland Ecoregion	Wetland/ Peatland	Main Vegetation type	Peatland type	Peat Thickness	Estimated Whitewinged Flufftail population (1)
1	Franklin Vlei	Eastern Uplands	Peatland	Tall Emergent: <i>Carex</i> , <i>Phragmites</i> , <i>Typha</i>	Mire – fen	0.8 m	40-50
2	Hebron	Eastern Uplands	Wetland?	Tall Emergent: <i>Carex</i> , <i>Phragmites</i> , <i>Typha</i>	?	?	10
3	*Lakenvlei	Central Highlands	Peatland	Tall Emergent / Mixed grass/sedge meadow: <i>Carex</i> , <i>Phragmites</i> , <i>Typha</i>	Mire – fen	4.2 m	10-15
4	*Mfabeni	Natal Coastal Plain	Peatland	Tall Emergent / Mixed grass/sedge meadow: <i>Phragmites</i> , <i>Carex</i> (swamp forest in some parts)	Mire – fen	10 m	20+
5	Murphy's Rust	Great Escarpment Mountain	Peatland	Tall Emergent / Mixed grass/sedge meadow: <i>Phragmites</i> , <i>Typha</i> , <i>Cyperus</i>	Mire – fen	1.4 m	10

6	Penny Park	Eastern Uplands	Wetland?	Tall Emergent / Mixed grass/sedge meadow: Phragmites, Typha, Cyperus	?	?	5
7	Vanger	Great Escarpment Mountain	Peatland	Tall Emergent / Mixed grass/sedge meadow: Typha, Phragmites, Carex, Cyperus	Mire – fen	1 m ?	20-30
8	Wakkerstroom	Great Escarpment Mountain	Peatland	Tall Emergent / Mixed grass/sedge meadow: Phragmites, Carex, Typha	Mire – fen	2.8 m	15-20
9	*Watervalvlei (Braamhoek/Chatsworth)	Great Escarpment Mountain	Peatland	Tall Emergent / Mixed grass/sedge meadow: Phragmites, Carex, Typha	Mire – fen	4.7 m	50
10	Seekoeivlei	Great Escarpment Mountain	Floodplain	Tall Emergent / Mixed grass/sedge meadow Phragmites, Typha, Cyperus	Floodplain with sections of mire	Organic layer on surface	10

- Sites to be visited during the IMCG Congress in South Africa in September 2004.
- (1) Population data from Taylor (1997a) and unpublished observations by P.B. Taylor.

South African mires: Habitat and distribution

Eleven peatland eco-regions have been identified (Marneweck, Grundling and Miller, 2001), occurring largely in the eastern part of the country, along the coastline and in mountainous and highveld areas. The largest of these eco-regions are the Natal Coastal Plain, Eastern Uplands, Great Escarpment Mountains and Highveld. Peatland eco-regions also occur along the coast of the Eastern Cape and the fold mountains of the Western Cape.

The eco-regions vary with respect to a number of factors including:

- the type of peatland present;
- the extent and number of known peatlands present;
- the peatland characteristics; and
- the type, depth, age and paleo-environmental development of the peat.

The four main peatland eco-regions linked to the distribution of the Whitewinged Flufftail are described as follows (Fig. 3).

Central Highlands Peatland Eco-region

The Central Highland Peatland Eco-region covers c.7 % of the total peatland eco-region area and 63 known peatlands (c.14% of the total recorded peatlands) occur in this region. This eco-region, while only the sixth largest, contains the second largest number of known peatlands. The major land-use in the eco-region is cultivation, and c.25% of the area has been altered from a natural state. The major land-use encroachment on the peatlands is also cultivation.

Most of the known peatlands in this eco-region are concentrated on the Steenkampsberg Plateau. The peatlands in this region vary in extent from 0.5 ha to 293 ha, with a total area of 2179 ha. Peat thickness varies from 0.6 m to 4.5 m with an average of 1.31 m. The largest peatland is the *Phragmites australis* and *Carex acutiformis*-dominated Lakenvlei Wetland Complex.

The majority of the known peatlands in the eco-region are valleybottom fens with the dominant vegetation cover being reeds (*Phragmites australis*) and *Carex* species as well as grasses and other sedges to a lesser extent. The reed and sedge peat tends to be fibrous to medium fine, the grass and sedge peats are mostly medium to fine-grained.

Peatland utilisation and impacts include water abstraction, agriculture, grazing, afforestation, peat fires, draining, headcut and donga erosion, roads, fences and dams (particularly trout dams).

The Lakenvlei peatland was dated at 5080 ± 50 years Before Present (BP) at a peat depth of 1.95 m. During this period (the Holocene), peat accumulated at 0.36 mm/year. This peatland has subsequently been

sampled up to a depth of 4.2 m and this thickness relates to a possible peat age of approximately 11,600 years.

Great Escarpment Mountains Peatland Eco-region

The Great Escarpment Mountain Peatland Eco-region covers 17.6 % of the total peatland eco-region area and 14 known peatlands (3 % of the total recorded peatlands) occur in the region. It is the second largest eco-region and contains the fifth largest number of known peatlands. The major land use in the eco-region is forestry and c.21% of the area has been altered from a natural state. The major land-use encroachment on the peatlands is also afforestation.

The peatlands in this region vary in extent from 1.6 ha to 298 ha, with a total area of 696 ha. Peat thickness varies from 0.75 m to 4,7 m with an average of 1.52 m.

The majority of the known peatlands are valleybottom fens with the dominant vegetation cover being grasses and sedges and to a lesser extent *Phragmites australis* and *Carex* species. The largest peatlands are reed- and sedge-dominated and these have developed the thickest peats. The reed and sedge peat tends to be fibrous to medium fine peat. The grass and sedge peats are mostly medium to fine grained peat.

Peatland utilisation and impacts include water abstraction, agriculture, grazing, afforestation, draining, headcut and donga erosion, roads, fences and dams. In a few areas, siltation is also a problem.

The peatlands are better developed in the south than in the north, but this is not a clearly-defined boundary. The Wakkerstroom peatland (a reed and sedge dominated peatland in the middle of the eco-region) was dated at 780 ± 40 BP at a peat depth of 2.2 m, with a peat accumulation rate of 2.8 mm/year. In contrast, the Watervalvlei peatland (a reed and sedge dominated peatland in the southern area) was dated at $10\ 745 \pm 30$ BP at a peat depth of 4.6 m. This peatland has a peat accumulation rate of 0.43 mm/year.

Eastern Uplands Peatland Eco-region

This eco-region covers 29.4 % of the total peatland eco-region area and 4 known peatlands (0.9 % of the total recorded peatlands) occur in this region. It is the largest peatland eco-region, but it contains the third least number of known peatlands. The major land use is cultivation and c.44% of the area has been altered from a natural state. The major land-use encroachment on the peatlands is also cultivation.

The peatlands in this region vary in extent from 1.2 ha to 114 ha, with a total area of 246 ha of peatland. Peat thickness varies from 0.6 m to 1.9 m with an average of 1.25 m.

The majority of the known peatlands are valleybottom fens with the dominant vegetation cover being bulrushes (*Typha capensis*) and sedges, as well as grasses to a lesser extent. *Phragmites australis* and *Carex* species also occur. The reed/sedge peat tends to be a fibrous to medium fine peat. The bulrush /grass and sedge peats are mostly medium- to fine-grained.

Peatland utilisation and impacts include water abstraction, agriculture, grazing, afforestation, draining, headcut and donga erosion, roads, fences and dams.

The peatlands in this region are, in general, poorly developed with respect to peat thickness and most seem to have developed more recently. The Mvoti peatland was dated at 400 ± 50 years BP at a peat depth of 1.65 m. Over this period, peat accumulated at a rate of 4.1 mm/year.

Natal Coastal Plain Peatland Eco-region

The Natal Coastal Plain Eco-region covers 7.1 % of the total peatland eco-region area and 306 known peatlands (c.66 % of the total recorded peatlands) occur in this region. It is the fifth largest eco-region and contains the largest and highest density of peatlands of all the eco-regions. The major land use is forestry and c.38% of the area has been altered from a natural state. The major land-use encroachment on the peatlands is cultivation.

The peatlands vary in extent from 0.5 ha to 3 925 ha, with a total area of 20,230 ha. Peat thickness varies from 0.2 m to 10 m with an average of 2.03 m. These volumes were not reflected in the original database used for this eco-region and as such have not been included in the linked peatland attribute tables for this eco-region. The largest mire is the Mkuze Delta dominated by *Phragmites australis*, a *Carex* species and *Cyperus papyrus*. Swamp forest are also associated with this system.

The majority of the peatlands are interdune valleybottom fens and the dominant vegetation cover is reeds and sedges (*Cyperus papyrus*, *Phragmites australis* and *Carex* species) as well as swamp forests. Grasses and sedges occur to a lesser extent. The reed/sedge and swamp forest peat tends to be coarse fibrous to medium fine. The grass and sedge peats are mostly medium fine fibrous to fine -grained.

Peatland utilisation and impacts include intensive *in situ* horticulture, water abstraction, agriculture, grazing, afforestation and draining.

Two distinct peat age trends are present in these peatlands. Most peatlands are younger than 7000 years and are distributed across the eco-region. Two of the peatlands (Mfabeni and Mhlanga) are of Pleistocene age and are located in the southern area of the eco-region. Mfabeni is most probably one of the oldest active peat accumulating wetlands in the world. It was dated at 43,000 + 4900 - 3000 BP at a peat depth of 9.9 m. During the period 43,000 – 11,000 years BP (the late Pleistocene), peat accumulated at 0.23 mm/year, while during the period 11,000 years BP to present (Holocene), the peat accumulated at 0.43 mm/year (5290 ± 70 BP at a depth of 2.5 m).

Conclusion

The distribution of the Whitewinged Flufftail is not only restricted to the upland wetlands of southern Africa. These birds have now been shown to occur in the coastal wetlands of Maputaland, KwaZulu-Natal. There is a strong correlation between the distribution of the Whitewinged Flufftail and mires dominated by *Carex* species mixed with *Phragmites australis*, *Typha capensis* and often also *Cyperus fastigiatus*. The distribution of peatlands within these eco-regions could serve as a template to determine a broader distribution range for the Whitewinged Flufftail. More birds might be occurring in these peatlands in the eco-regions and further research is required to determine the extent of the Whitewinged Flufftail's dependency on mire habitat in South Africa.

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Figure 1: Whitewinged Flufftail male (top left, bottom left) and female (right). Reproduced from Taylor & van Perlo (1998).



Figure 2: South African sites at which the Whitewinged Flufftail occurs regularly and/or in significant numbers.

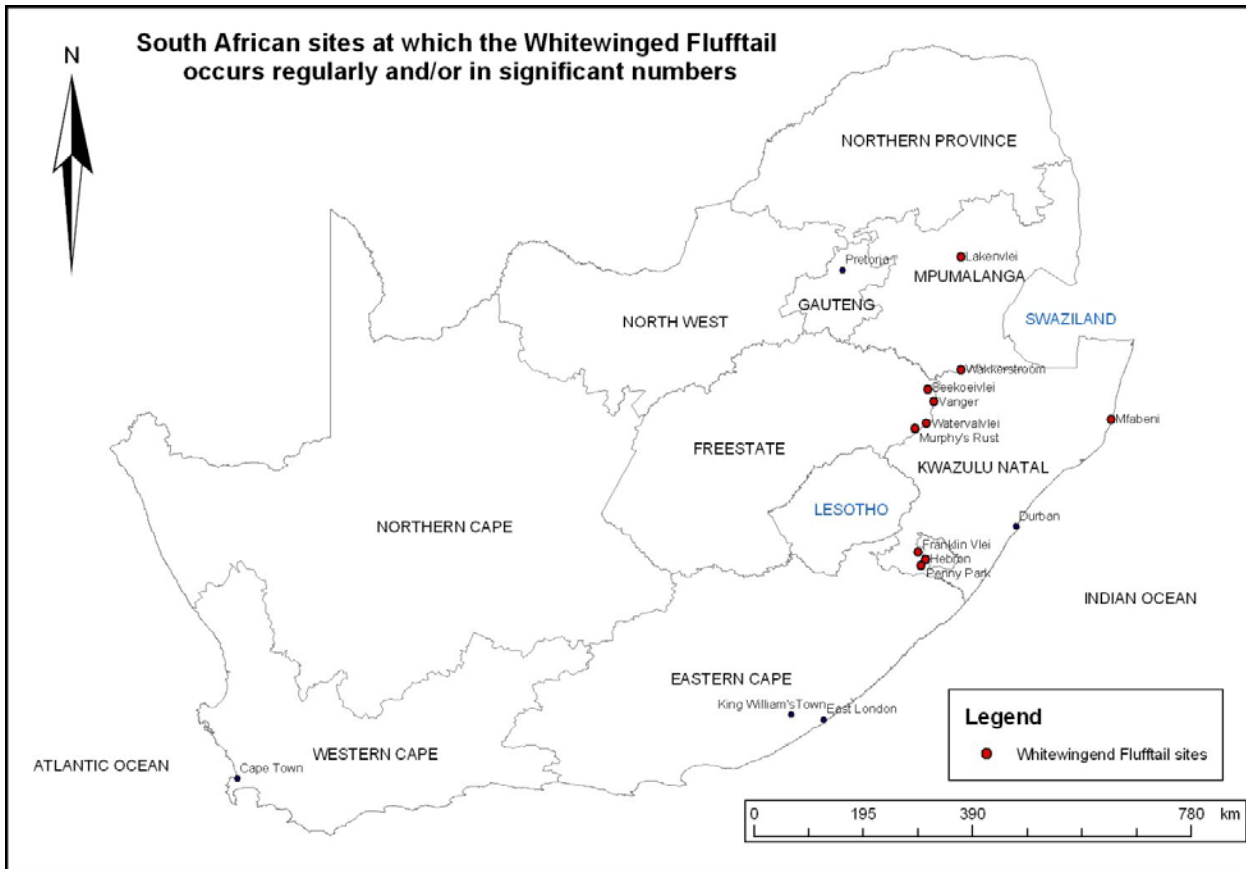
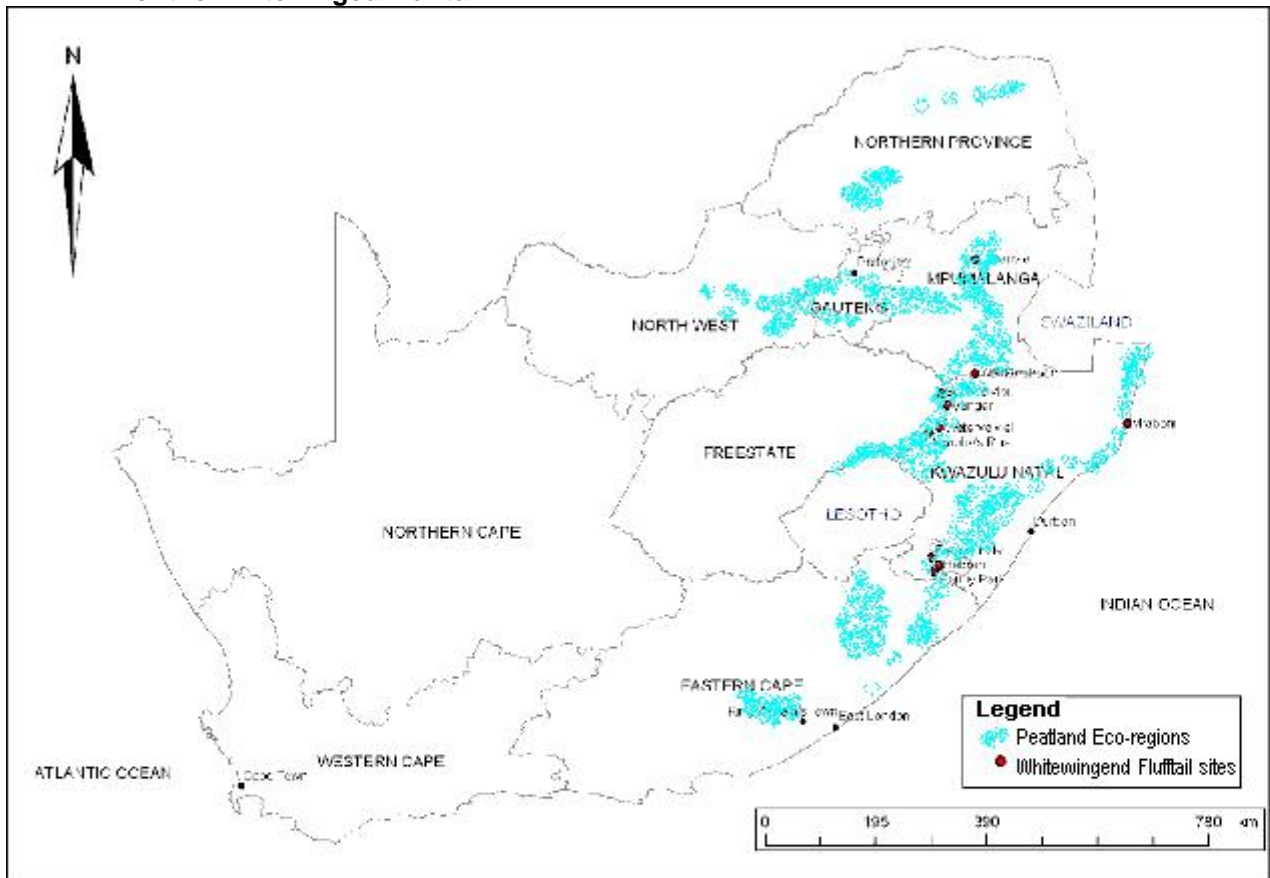


Figure 3: Peatland Eco-Regions in South Africa sites which could indicate new distribution ranges for the Whitewinged Flufftail.



Citation:

Taylor, P.B. and Grundling, P. 2003. THE IMPORTANCE OF SOUTH AFRICAN MIRES AS HABITAT FOR THE ENDANGERED WHITEWINGED FLUFFTAIL (*SAROTHRURA AYRESI*). In: Couwenberg, J. & Joosten, H. (eds.) International Mire Conservation Group, Newsletter Issue 2003/2, July 2003.

APPENDIX 2: National White-winged Flufftail Action Planning workshop programmes.



Species Action Plan Stakeholder Workshop, White-winged Flufftail *Sarothrura ayresi*.
Wakkerstroom, 26 – 29 May 2003.

Workshop Programme.

	26 May	27 May	28 May
8:30 – 13:00	<p>Welcome (MD/DC). Introductions & 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 (DC)</p>	<p>Recap of day 1 (SE)</p> <p>Group work: Problem tree analyses.</p> <p>Group presentations and discussions: - Report back on problem tree. - Review brainstorm of issues. - Prioritise issues at highest level.</p>	<p>Recap of day 3. Agree the Vision and Aim of the Action Plan. (SE)</p> <p>Group work: Formulation of Project Concepts.</p> <p>Group presentations and discussions: - Report back on Project Concepts.</p>
13:00 – 14:00	LUNCH		
14:00 – 18:00	<p>Response to presentation (DC/MD/SE) - any gaps? - questions & answers?</p> <p>Identify main issues affecting implementation of a White-winged Flufftail Action Plan? (SE)</p> <p>What are the main issues (threats) affecting the White-winged Flufftail? (SE)</p> <p>Evaluation (ALL).</p>	<p>Group work: Draft the Objectives. - Consider the life-span of the Action Plan (3 – 5 years).</p> <p>Group presentations and discussions: - Report back on Objectives. - Prioritise the Objectives.</p> <p>Evaluation (ALL).</p>	<p>Group work: Completion of Projects Table.</p> <p>Group presentations and discussions: - Report back on completed Projects Table.</p> <p>Monitoring & Evaluation Plan. - Why? / How? / Who? / When?</p> <p>Adoption of the White-winged Flufftail Action Plan.</p> <p>Evaluation (All).</p>

MD = Malcolm Drummond, **DC** = Deon Coetzee, **SE** = Steven W. Evans, **ALL** = everyone.

White-winged Flufftail Action Plan stakeholder workshop, 26 – 28 May 2003.

Facilitators Programme:

Date & Time.	Time (min)	Activity	Description	Person responsible
Monday 26th May 2003: Day 1.				
08:30 – 08:45	15	Welcome	Plenary. Brief welcome to everyone by a member of the Middlepunt Wetland Trust (White-winged Flufftail). Introduction of the facilitator.	Malcolm Drummond / Deon Coetzee
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
10:00 – 10:30	30	Tea/Coffee Break		
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.	Deon Coetzee
12:30 – 14:00	90	LUNCH		
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 White-winged Flufftail Action Plan?	Plenary – Cards (Over-heads). Brainstorm the risks & opportunities (include ongoing projects). Group and discuss.	Steven W. Evans
16:00 – 16:30	30	Tea/Coffee Break		
16:30 – 18:00	90	What are the main issues (threats) affecting the White-winged Flufftail?	Plenary – Cards. Brainstorm, group and discuss cards.	Steven W. Evans
18:00 – 18:05		Evaluation	Happy, medium, sad face.	Steven W. Evans
19:00 -		DINNER		

Tuesday 27th May 2003: Day 2.				
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
13:00 – 14:00	60	LUNCH		
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
15:30 – 16:00	30	Teal/Coffee		
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
19:00 -		DINNER		

Wednesday 28th May 2003: Day 3.				
08:30 – 09:00	30	Recap of day 2.		
09:00 – 10:00	60	Agree the Vision and Aim 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
12:30 – 13:30	60	LUNCH		
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
17:30 – 17:45	15	Workshop close.	Votes of thanks.	Deon Coetzee / Malcolm Drummond / Steven W. Evans
17:45 – 18:00	15	Final Evaluation	Happy, medium, sad face	Steven W. Evans

Notes:

- 1) Put up two sheets of flipchart paper in one corner for people to anonymously record their complaints / concerns.
- 2) Put up paper for those wanting to serve as editors of the draft White-winged Flufftail Action Plan to record their names and e-mail addresses.

- Problem tree analyses.

Compile cards effects: White-winged Flufftail – pop decline (reduced br. success / increased adult mortality/off-take
- habitat loss

- Prepare cards of explanation of rules to workshop techniques.

- Print over-heads in black and white.

**White-winged Flufftail Action Plan Stakeholder Workshop,
26 – 28 June 2003.**

OBJECTIVES:

The objectives that are determined appropriate for the Cape Parrot 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 4: Considerations when describing project concepts.

PROJECT CONCEPTS.

The following filters should be considered when developing project concepts for the White-winged Flufftail Action Plan.

- Is the project relevant?
- Does it contribute to achieving the overall aim of the White-winged Flufftail 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 White-winged Flufftail Action Plan. The Action Plan contributes to conserving White-winged Flufftail.

APPENDIX 5: Profile of the Middelpunt Wetland Trust.

Middelpunt Wetland Association was formed in 1994 with the prime objective of conserving the critically endangered White-winged Flufftail and its habitat. A formal trust was registered in 2002. The trustees are Deon Coetzee (Chairman), Warwick Tarboton, Les Underhill, Sandy de Witt and Malcolm Drummond.

In 1994 there were three known sites in South Africa where the bird had been intermittently recorded during the summer season. One of these was the Middelpunt vlei on a farm between Belfast and Dullstroom. To protect this vlei, a ten-year lease was negotiated with the owner. Five kilometres of one-metre deep draining trenches down the edges of the vlei, which had been dug in 1982, were filled-in to return the water table to its original level. The other two vleis where the bird had occurred were Wakkerstroom and Franklin in East Griqualand.

Since then a programme of monitoring and research has been undertaken. Fortuitously, in 1995, the bird was rediscovered by local and British scientists in Ethiopia. Consequently, we sponsored Barry Taylor, who had done work for us locally, to go to Ethiopia to study the bird and its habitat there. He was successful in finding a few birds, including a female with three chicks, thus establishing that the WWF breeds in Ethiopia during their July/August rainy season.

He also discovered that the bird inhabited marshes with mixed grasses and sedges compared to the South African caryx sedge habitat. With this new habitat knowledge the trust again made use of Barry's services to look for new South African sites where the bird might occur during our summer season. He found six new sites, viz. two more in East Griqualand and four in the eastern Free State.

In 1998 we again sent Barry Taylor to Ethiopia where he found the first scientifically recorded nest at a new site in Berga wetland, about 90 kilometres from Ethiopia. The nest contained five eggs.

The trust has undertaken an ongoing programme of monitoring and conservation since then. Deon Coetzee and Warwick Tarboton went to Ethiopia in December 2001 with the main objective of trying to protect the two known breeding sites. Both marshes were under considerable threat through privatization of state-owned dairy farms, which would have resulted in unmanaged grazing of the marshes during the breeding season. They were successful in managing to get governmental agreement to stop issuing hunting licences for the marshes.

One marsh, Weserbi, has been privatized, but with the exclusion of the marsh, which is now under government conservation control. The second marsh, Berga, is still under state dairy control. The Ethiopian Wildlife and Natural History Society (EWNHS) has initiated successful conservation action through the formation of a site support group.

The Berga site support group has provided protection to the marsh, during the breeding season, to prevent cutting of grasses and sedges for the culturally important Ethiopian coffee ceremony. A major problem for the Berga community was the 10-kilometre walk to the nearest primary school, which was too far for the small children to walk each day.

The support group suggested that the building of a schoolroom, which could double as a meeting room for the village elders and the support group, would really benefit the community. Middelpunt Wetland Trust financed one half of the building of the schoolroom, which was completed in July 2003. Two shifts of 48 children each will be schooled there.

In 2003 a partnership was formed between Eskom, BirdLife South Africa and Middelpunt Wetland Trust to mitigate potential disturbance and damage, which could potentially be caused by the construction of the Braamhoek pumped storage scheme. The Bedford Chatsworth marsh, at the top dam site in the eastern Free State, is one of the White-winged Flufftail sites discovered by Barry Taylor for Middelpunt Wetland Trust.

We have already seen substantial and direct benefits from this partnership through the Eskom sponsorship of both the South African and Ethiopian White-winged Flufftail species action plan workshops in 2003. Both workshops were facilitated by Steven Evans of BirdLife South Africa.

The trustees of Middelpunt Wetland Trust are confident that this new partnership will help extend knowledge and understanding of the White-winged Flufftail and its conservation needs.

For more information please contact Malcolm Drummond, BirdLife South Africa, P.O. Box 515, Randburg 2125, South Africa. Tel 011 789 1122, Fax 011 789 5188, email: publicrelations@birdlife.org.za and www.birdlife.org.za or Deon Coetzee, Middlepunt Wetland Trust, 082 490 1212 or tel. & fax 011 884 2739.

APPENDIX 6: Profile of BirdLife South Africa.



Description and Mission

BirdLife South Africa (BLSA) is an 8000-member, nationwide, conservation and birding non-government organisation with 27 branches and 18 affiliates around South Africa. Founded in 1930 as the Southern African Ornithological Society, the name was changed to BirdLife South Africa in 1996.

The mission of BirdLife South Africa is to promote the enjoyment, conservation, study and understanding of wild birds and their habitats. Increasingly, the context of BirdLife South Africa is about taking action for birds through people at all levels of South African society.

History and development

Founded as a scientific society for the study of ornithology, the membership grew in the 1970s and 1980s to include a significant component of recreational birders, organized through local branches. In 1995, the Council of the Society determined a new direction to develop education and conservation action programmes, to be given effect through the appointment of a professional executive. A full-time director was appointed from 1 January 1996. The impetus and funding for action programmes increased with links to the BirdLife International partnership that began in 1996.

The Society has developed rapidly. Since 1996, annual budgets have grown from about R300 000 to over R8 million in 2003, and from 2 part-time staff members in 1995 to the current 36 full-time and part-time staff. Programmes have increased from none to nineteen. The Society now plays a significant role in training, education, conservation, guide training, skills upliftment, job creation and avitourism. The Society owns its own headquarters (the Lewis House, donated by the Tony and Lisette Lewis Foundation) in Johannesburg, has the Wakkerstroom guide training and avitourism centre, and programme staff in Cape Town and Richards Bay. In 2004, a field officer will be located in the Eastern Cape.

BirdLife International

BirdLife South Africa is the Partner in South Africa of BirdLife International, which is the world's largest voluntary coalition of nationally based conservation organisations, represented by 2.5 million members in 106 countries. A secretariat based in Cambridge, England, provides the central administration for regional partnerships within BirdLife International. The African Partnership, in which BirdLife South Africa plays a vital role, includes 18 African countries and is supported by a secretariat in Nairobi, Kenya.

BirdLife South Africa subscribes to the mission and values of BirdLife International, encapsulated through the themes of "Species, Sites, Habitats and People". BirdLife South Africa is represented by its Director on the African Regional Committee and he represents Africa on the Global Council of BirdLife International. These links allow BLSA to influence international conservation action through the collective strength of the coalition.

BirdLife South Africa takes part in several international programmes, We play a major role in the African Species working group of BirdLife International, and the seabird programme in Cape Town is part of the international programme to reduce seabird mortality as a bycatch of the longlining industry. The Richards Bay Rio Tinto programme is global and coordinated by BirdLife International. International programmes may expand significantly in the future, with four applications under development at present.

The RSPB (Royal Society for the Protection of Birds - the United Kingdom Partner of BirdLife International) has played a vital role with an in-country support programme for BirdLife South Africa, conducted within the context of the BirdLife International Partnership.

Publications and media

BirdLife South Africa publishes its own quarterly, national newsletter for its 8 000 members. This is a well-read, 40-page, word-heavy newsletter with advertising, which updates members on all our activities. Eight pages are published for the Society in each issue of *Africa – Birds & Birding*, which is renowned for its superb photographs and excellent text. It has a current circulation of 19 000 with a readership of about 120 000, and received the PICA award for best magazine in 1999 and 2000. Since 1930, BirdLife South Africa has published *Ostrich*, the premier scientific journal of ornithology in Africa. *Ostrich* has been the medium of choice for the publication of the proceedings of the four-yearly Pan-African Ornithological Congresses.

BirdLife South Africa has a website at www.birdlife.org.za, funded by Sasol, that contains much information about the Society, its activities, birds and birding. The site contains many useful facilities, such as a southern Africa bird finder and links to other complementary websites. It is currently receiving in excess of 1 000 visits a day.

In conjunction with the Avian Demography Unit at the University of Cape Town, we have published the *Atlas of Southern African Birds*, *The Important Bird Areas in Southern Africa* and the *Eskom Red Data Book of Birds of South Africa, Lesotho and Swaziland*. There have also been a number of other publications such as the *Nature and Value of Birding in South Africa*.

Structure

BirdLife South Africa's constitution defines a governing Council, which meets a minimum of twice annually and includes member representatives and designated members. Certain responsibilities and financial management have been delegated to the Board of Management, which meets six times a year.

Essentially, branches run recreational birding programmes with central elements of outings, indoor meetings and a newsletter. Many branches have conservation and education programmes.

The secretariat provides administration for membership and national programmes, fundraising, public relations and management of publications and formal meetings.

Programmes

The Sites and Species Programme, formerly the Important Bird Areas programme funded by the Global Environmental Facility, is funded by multiple sources. The programme centres on the conservation of a network of 121 sites in South Africa that are critical for the long-term survival of threatened species and focuses on threatened birds defined in a global Red list. It is run by Steven Evans.

The Learning for Sustainable Living Programme was started in 1998 and was funded by the British National Lottery, sourced by and managed in partnership with the RSPB. The programme has created a resource for all South African 9-13 year-olds using the environment to deliver various learning areas in the context of Outcomes-based education. As well as providing workbooks, teachers and subject advisers are trained through participation in workshops to use the resource in schools throughout South Africa. In June 2003, this project won the Green Trust Award for best environmental education programme. From 2004 this programme will be funded by South African sources.

The Wakkerstroom Programme began in 1998 with a grant of R1 million from Sappi. It is a multi-functional conservation, education and awareness facility situated on a farm adjacent to the Wakkerstroom wetland in Mpumalanga, in the heart of the proposed 1 500 000 hectare Ekangal Conservation Area. The centre promotes ecotourism and offers accommodation and camping, and is the home of the Guide Training programme. The facility is also available for hire for fully catered training courses, meetings and conferences. BirdLife South Africa has established a permanent bird-ringing site at the facility. David Nkhosi is a world-famous guide operating from these premises. Nigel Anderson manages the programme.

The Guide Training Programme was initiated through funding from Sasol in 1999 and has since trained 120 persons from previously disadvantaged communities as bird guides. The programme is evolving rapidly in association with the government-driven initiative to regulate the guiding industry in South Africa. Ecotourism, and bird-guiding in particular,

is a core focus of sustainable development programmes in South Africa. We are seeking to involve the broader South African community in bird conservation by creating ownership and economic development relating to birds through birding tourism. Andre Botha and John Isom run this programme.

The Seabird programme, founded in 1997, focuses on the conservation of seabirds by reduction of longlining mortality through the introduction of mitigation measures and awareness in South Africa waters. The programme officer is Samantha Petersen.

The Building on Experience Programme is funded by the British High Commission and began in 2002. A tried and tested BirdLife International and RSPB framework is used to train selected representatives in governance, administration and management. The programme will run for the second year in 2004, and will eventually provide assistance to 40 conservation NGOs from the previously disadvantaged sectors in organisational development. Andre Botha manages this programme.

The Richards Bay Rio Tinto Programme. Funded by Rio Tinto and Richards Bay Minerals, it began in 2002 and aims to promote the awareness and conservation of birds through avitourism. Through the creation of a partnership with Richards Bay Minerals and a range of local stakeholders, the programme will expand and enhance the operation of the Zululand Birding Route and create a network of birding sites with trained guides from local communities, and market this resource nationally and internationally. The programme aims to ensure the long-term survival of birds in Richards Bay and greater Zululand area through awareness, job creation and input into long-term planning, and thus also promote the value of birds and natural habitats in a far wider area. Duncan Pritchard is the programme coordinator with Sakhamuzi Mhlongo, the development officer / community liaison officer.

The Oppenheimer De Beers Programme is funded by the Oppenheimer Family and De Beers and began in 2003. It is a broad-based initiative using skills development and will use education, research and monitoring, and development of birding tourism to create an array of opportunities at some of the sites owned by the Oppenheimer Trust and De Beers in southern Africa. This programme is part of the much larger Kopanang initiative led by the Oppenheimer businesses and the Department of Environmental Affairs and Tourism. The objective is to integrate a range of NGOs and organisations in a synergistic programme to empower communities to create a sustainable environment. It will initially concentrate on the Oppenheimer and De Beers properties and their surrounding communities. Soza Simango is the Programme Manager.

The Braamhoek programme is a result of the mitigation process for the building of a new pumped storage scheme on the Drakensberg escarpment. A partnership between Eskom, BirdLife South Africa and Middelpunt Wetland Trust has been established to deliver important bird and habitat conservation results on a regional, national and international scale. Several farms will be consolidated into a single unit, the Bedford Wetland Park, which will be managed for effective conservation. Fairly extensive gully and sheet erosion and damage to the wetland will be rehabilitated.

Northern Cape Birding and Eco-Guide Development Initiative. R 200 000 has been provided by the National Lotteries Board to train bird guides for Important Bird Areas in the Northern Cape. One component of this project is the establishment of BirdLife's first branch in this Province. The programme builds on a process developed at the Blue Swallow Natural Heritage Site IBA in Kaapschehoop. It is managed by Steven Evans and implemented by Duan Biggs.

Rudd's Lark Study. David Maphisa is undertaking an MSc on Rudd's Lark in a three-way partnership between the Percy Fitzpatrick Institute of African Ornithology, the RSPB and BirdLife South Africa, funded by the RSPB. Rudd's Lark is the only South African species listed as Critically Endangered in the Threatened Birds of the World. This project will help develop our species programme and produce an experienced black researcher.

Tourism Programmes. BirdLife South Africa is developing avitourism through the implementation of community-based BirdLife Birding Routes. The birding routes will combine existing resources into exciting avitourism destinations that will conform to standards agreed with the Department of Environmental Affairs and Tourism. These will ensure not only high standards of service and product quality, but also the mechanisms to drive community participation and transformation. The Richards Bay Rio Tinto initiative forms part of the foundation of this programme. Funding has been received for three birding routes. Soutpansberg Birding route has been funded by the Jensen Foundation, and seeks to support the creation of a Soutpansberg birding route. Staff members involved are Steven Evans and John Isom. Overberg Birding Route has received funding in 2004 to create a birding route in the south-western Cape, centred in the Overberg area, and is managed by Anton Odendal. The development of the Mpumalanga Birding Route centred on Nelspruit is supported by funding from Germany, and is managed by John Isom.

BirdLife Travel seeks to promote Birding tourism in South Africa, channelling birders through birding routes and seeking to support conservation of birds through adding value in terms of sustainable and responsible tourism.

Cape Parrot Working Group. This became a working group of BirdLife South Africa in 2003 with a full-time officer to be situated in the Eastern Cape in 2004. The programme focuses on field action for the highly endangered Cape Parrot.

Clear Channel Bird Sanctuary. This is an urban bird sanctuary in Sandton area funded by Clear Channel Independent.

The National Trust of BirdLife South Africa funds tertiary research and other educational activities. Expenditure is financed by income from the trust's capital.

Partnerships

BirdLife South Africa seeks to build long-term partnerships with partners such as corporates, aid agencies and NGOs. Such partnerships should be mutually beneficial, addressing the needs of all parties. BirdLife South Africa believes that it represents quality branding and seeks to involve appropriate institutions to further its aims. A Corporate Policy governs partnerships with companies. Some partnership details, not previously described, are itemised below.

Avian Demography Unit (ADU) at the University of Cape Town. There are a number of monitoring programmes, including CAR (Coordinated Avifaunal Road Counts), BIRP (Birds in Reserves Project), CWAC (Coordinated Wetland Counts) and SAFRING (the South African Bird Ringing Unit), managed by the ADU, participated in through data collection by BirdLife South Africa members and supported financially by the Society.

The Percy Fitzpatrick Institute of African Ornithology houses BirdLife South Africa's extensive book and journal holdings in the Niven Library at the University of Cape Town and provides an office for the seabird programme.

Endangered Wildlife Trust (EWT). Steven Evans, IBA officer at BirdLife South Africa, is also manager of the Blue Swallow Working Group of the Endangered Wildlife Trust. We are developing closer ties with the South African Crane Working Group of the EWT.

Worldwide Fund for Nature South Africa. BirdLife South Africa has close ties with WWF-SA established primarily through the Sappi-WWF-SA Wakkerstroom centre, and which now also includes the education, Richards Bay Avitourism and seabird conservation programmes, for which WWF-SA has provided funding.

Middelpunt Wetland Trust. The Middelpunt wetland Trust was founded to research and take action for the White-winged Flufftail in South Africa and Ethiopia has achieved significant successes over the years. Through the Braamhoek programme, BirdLife South Africa has established a formal working partnership with the trust.

Corporates. BirdLife South Africa has current or past major programmes or donations with several corporates, including Sasol (Guide-training programme and many smaller programmes), Sappi (Sappi-WWF-SA Wakkerstroom centre), E. Oppenheimer & Son and De Beers (Oppenheimer De Beers programme), Richards Bay Minerals and Rio Tinto (Richards Bay Avitourism programme), Anglo American (Education and Wakkerstroom facilities), Mazda Wildlife Fund (Sites and Species programme and Wakkerstroom) and Eskom (Braamhoek programme and Red Data for Birds).

International Conferences

In 1998, BirdLife South Africa hosted the very successful 22nd International Ornithological Congress (IOC) in Durban with 1 100 delegates, combining it with a National Festival of Birds and Exhibition. This was the first IOC to be held on the African continent. In October 2001, BirdLife South Africa managed the launch of the Directory of Important Bird Areas for Africa. We will host the four-yearly World Congress of BirdLife International in February 2004 in Durban, with an anticipated 600 delegates from 115 countries – also a first for Africa.

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