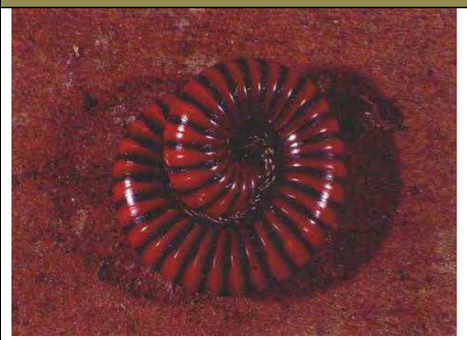
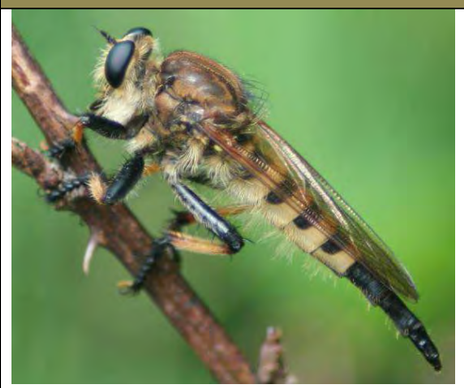
Annexure1. Details of animal species included in the conservation planning process identifying those species for which riparian and terrestrial habitats are regarded as important for species conservation.

Scientific name	English Name	Photo / Illustration	Description	Habitat preference / Priority areas for species conservation (Nesting sites etc)	Corridor design considerations	Riparian corridors	Terrestrial corridors
Afrixalus spinifrons intermedius	Natal leaf-folding frog	 Source: Mr V. Caruthers	A smallish frog (16 – 24 mm length) with a vertical pupil and tiny black "dots" (asperities) on the skin that are distributed rather evenly over the dorsal surface. Its colour is ivory to golden yellow above with a broad brown median band or wedge confined to the posterior part of the back. There is a light to dark unmarked brown band along each side of the body and the ventral surface is off-white	Inhabits marshes, dams, floodplains and river banks and also occurs in highland wetland areas. Inhabit the leaf axils of arums, reeds and sedges and are commonly located in arum lily flowers.	Maintenance of wetland and riparian areas and associated corridors should provide adequate connectivity for this species.	Y	N
Anthus brachyurus	Short-tailed Pipit	 Source :http://www.birdinfo.co.za/rarebirds/06_short-tailed_pipit.htm	The Short-tailed Pipit has a height of 12 cm and weighs around 16 gm. The head is coloured black, brown while the bill is coloured brown. The Anthus brachyurus has a white coloured throat, pink legs and a black, brown coloured back. The eyes are brown.	Their preferred habitat during the breeding season is short sparse grassland, while in the winter months are also recorded on short seasonally flooded grassland. Winter burning of grassland is important for the maintenance of short ankle-high grassland in which this species breeds. This species has been recorded at Darvil, Foxhill and Bisley Nature Reserve.	Given the mobility of birds, corridor design is not regarded as particularly important. This species can effectively “hop” from one area of suitable habitat to another. Primary management interventions should be aimed at ensuring maintenance of areas of preferred habitat identified in the systematic conservation plan.	N	N
Aonyx capensis	African clawless otter	 Source: http://itech.pjc.edu/sctag/extra/africanclawless2.jpg	The African clawless otter is the larger of the two species of otters occurring in southern Africa. It lacks the spotting of the neck, throat and chest which is found on the other species, the spotted-necked otter. As the name suggests the clawless otter has no claws on the digits and the digits are not webbed or used in propulsion when swimming (as is the case in the spotted necked otter).	Unpolluted streams and rivers with good supply of food (crabs) and dense riverine vegetation and other cover (holes, boulders). Dams provide less suitable habitat	Maintenance of wetland and riparian areas and associated corridors should provide adequate connectivity for this species.	Y	N

Scientific name	English Name	Photo / Illustration	Description	Habitat preference / Priority areas for species conservation (Nesting sites etc)	Corridor design considerations	Riparian corridors	Terrestrial corridors
Barbus gurneyi	Redtail barb	 Source: John Craigie, KZN Wildlife	Mouth terminal, with 2 pairs of barbells. Ripe males develop numerous conical tubercles on forehead, snout and lower jaws. Clear brown with dark scale borders, a thin band along body ends in a small distinct spot at base of caudal fin; fins pale yellow, turning orange-red in breeding males. Attains 100 mm standard length.	Altitudes of 300 – 1000 m, especially in clear, small streams of the sandstone belt. It favours pools that have sufficient vegetation cover.	Not specifically included in this study. Management of riparian corridors will however be important in limiting impacts to this species.	Y	N
Bradypodion melanocephalum	Black-headed dwarf chameleon	 Source: Dr. Adrian Armstrong	A small (max 11cm length) grey-brown chameleon. It has a row of horizontal small triangular flaps on the throat. The belly is slightly lighter than the flanks. Along the back is a row of enlarged tubercles (spikes). The back of the head is produced into a small casque (slightly pointed protrusion) and it has a “row” of enlarged flat scales along the side of the flanks. The gular grooves in the throat are white in colour.	Inhabits grasslands, wooded grasslands and forest edges in moist vegetation types. Typically forage in tall, thick grassland. Typically roost on thick-stemmed grasses but also roosts on woody trees and shrubs and occasionally on shrubs and trees just inside the forest margin (not typically in closed forest). Often located near moist areas (wetlands & river banks). Areas of low grassland / burnt or overgrazed grassland areas are not favoured by this species.	Although slow moving, corridors would be useful in promoting the maintenance of remaining populations of this species. Given the species ability to use a range of habitat types, even somewhat degraded areas (e.g. areas infested by alien plants) may act as suitable corridors for this species. Riparian corridors may also be effective in maintaining connectivity between remnant habitat patches.	Y	Y
Camaricoproctus planidens	No common name	 Source: Dr. Michelle Hamer	Up to 8cm long, stout, with light brown and black banding. Usually very sluggish, and spends most time curled up in the litter.	Leaf litter, often at base of trees, may also be in top 30cm of soil.	Although corridors are potentially useful linkages between areas of suitable habitat, the mobility of this species is extremely limited. As such, fine-scale changes in habitat characteristics are likely to form barriers to dispersal. Management of remaining areas of suitable habitat is therefore likely to be more important than creation of corridors for this species.	N	N

Scientific name	English Name	Photo / Illustration	Description	Habitat preference / Priority areas for species conservation (Nesting sites etc)	Corridor design considerations	Riparian corridors	Terrestrial corridors
Centrobolus lawrencei	Lawrence's red millipede	 Source: Dr. Michelle Hamer	Head black, legs yellowish brown, body with black and red bands. Species can only be confirmed by examination of male gonopods (modified legs on 7th segment of male)	Leaf litter, or on tree trunk or branches.	Although corridors are potentially useful linkages between areas of suitable habitat, the mobility of this species is extremely limited. As such, fine-scale changes in habitat characteristics are likely to form barriers to dispersal. Management of remaining areas of suitable habitat is therefore likely to be more important than creation of corridors for this species.	N	N
Circus ranivorus	African Marsh-Harrier	 Source: http://www.warwicktarboton.co.za/birdpgs/165AMHar.html	The African Marsh Harrier is found in southern, central and east Africa from South Africa to Sudan. The adult is 44-49cm long and is mostly brown with streaking on the forewings and underparts merging with deep rufous belly and thighs. The tail is brown with bold black barring which is visible in flight. The bill is black and the legs, feet and iris are yellow. The juvenile is dark chocolate brown with a whitish breast, buff shoulders and a brown iris. This species is not often heard calling except during courtship when the male gives a soft woot and the female a chip. In South Africa, breeding occurs throughout the year and nests are built of sticks, reed stems and grass and usually placed in a reed bed over water. These birds feed mainly on small rodents, birds and frogs.	Usually found in inland and coastal wetlands and moist areas adjacent to grasslands. In Pietermaritzburg known breeding sites are located at Darvil Sewage works and Foxhill.	Given the mobility of this species, corridor design is not regarded as particularly important. This species can effectively "hop" from one area of suitable habitat to another. Primary management interventions should be aimed at ensuring maintenance of areas of preferred habitat identified in the systematic conservation plan. Maintenance of corridors which include wetland and riparian areas will help promote conservation of suitable habitat for this species.	N	N
Crex crex	Corn crake	 Source: http://www.kolkatabirds.com/corncrake8sa.jpg	The adult Corn Crake is 22-25 cm long and has mainly brown, heavily spotted upper parts, a blue-grey head and neck, and reddish streaked flanks. It has a short bill and shows chestnut wings and long dangling legs in flight.	This species prefers grassland and savannah, with grasses up to 2 m tall, especially where grass is burnt in the dry season. Also uses rank grass near rivers, sewage works and ponds, the edges of old lands, longer grass on airfield fringes, and reed beds. This rarely seen non-breeding palaearctic migrant and has been recently recorded in Bisley Nature Reserve.	Given the mobility of this species, corridor design is not regarded as particularly important. This species can effectively "hop" from one area of suitable habitat to another. Primary management interventions should be aimed at ensuring maintenance of areas of preferred habitat identified in the systematic conservation plan.	N	N

Scientific name	English Name	Photo / Illustration	Description	Habitat preference / Priority areas for species conservation (Nesting sites etc)	Corridor design considerations	Riparian corridors	Terrestrial corridors
Crocidura maquassiensis	Makwassie musk shrew	 Source: Dr. Peter Taylor	Shrews are similar in appearance to rodents but possess a much longer snout, smaller ears and shorter legs. Unlike forest shrews (Myosorex spp) which have no obvious bristles on the tail, and have a coarse, dark-brown fur, musk shrews (Crocidura spp) and dwarf shrews (Suncus spp) have tails with conspicuous bristles and a smoother grey to brown coloured fur. Musk shrews are distinguished from dwarf shrews in their larger body size and in having a more brownish fur (dwarf shrews are grey coloured). The Makwassie musk shrew is the smallest musk shrew in the region, having a mass of 6g, and head and body length of about 60mm and a tail length of about 40mm. This is still larger than the least dwarf shrew (Suncus infinitesimus) which also occurs in the region but has a mass of 3g, head and body length of 50mm and a tail length of 25mm.	The species is likely to occur in undisturbed wetland areas and moist grasslands. Particularly in rank vegetation and / or rocky areas.	Corridors are potentially important for this species, although habitat characteristics of the corridor are likely to affect use by this small shrew. Given the species preference for wetland areas and moist grassland, maintenance of riparian corridors may provide a reasonable level of connectivity between areas of suitable habitat.	N	Y
Curvella caloglypta	Ribbed curvella	 Source: Dr. Dai Herbert	Shell small, relatively broad and somewhat globular, with a distinctively blunt apex; fragile and translucent, with strong but thin, arched axial riblets which cover almost the entire shell. Glossy, pale translucent milky white. Length up to 6.0 mm.	A poorly known and evidently very rare species recorded on very few occasions, particularly in recent years. Endemic to the KZN Midlands and recorded from the PMB botanical gardens in the early 1900's.	Although corridors are potentially useful linkages between areas of suitable habitat, the mobility of this species is extremely limited. As such, fine-scale changes in habitat characteristics are likely to form barriers to dispersal. Management of remaining areas of suitable habitat is therefore likely to be more important than creation of corridors for this species.	N	N
Dasophrys natalensis	Natal robberfly	No photo available. See Londt (1981) p. 670 Figs 107–112 (wing & male genitalia) for detailed drawings and more detailed description. A photo of another species of robber fly is provided below to provide some indication of general characteristics of this group.	This is the largest of all known Dasophrys species, found in forest patches in KwaZulu-Natal. It has dark red-brown antennae and thorax. Abdomen is black with gold pruinescence.	Occurs in Mistbelt forest margins, found in mid to late summer. The species is notoriously difficult to catch; living in the tree canopy or along margins of forest and appears to like sunny spots where it can bask amongst twigs and branches.	Given the mobility of this species, corridors between forest patches are likely to contribute to the conservation of this species.	N	Y

Scientific name	English Name	Photo / Illustration	Description	Habitat preference / Priority areas for species conservation (Nesting sites etc)	Corridor design considerations	Riparian corridors	Terrestrial corridors
		 Source: http://www.dpughphoto.com/images/robberfly%20eno%20cole%2081705%202.JPG					
Dasophrys umbripennis	Shaded-winged robberfly	No photo available. See Londt (1981) p. 690 Figs 179–184 (wing & male genitalia) for detailed drawings and more detailed description.	This robber fly has a black head and antennae. The thorax is also black with fine gold pruinescence. The abdomen is dark red-brown with orange-brown bristles.	The species occurs in forest margins and woodland and has been occasionally recorded in Pietermaritzburg gardens. It apparently flies from early winter through into midsummer.	Given the mobility of this species, fine-scale corridors between forest patches are likely to contribute to the conservation of this species.	N	Y
Doratogonus cristulatus	Cristulate black millipede	 Source: Dr. Michelle Hamer	Large (up to 12cm), black, shiny millipede with brown legs. Species can only be confirmed by examination of male gonopods (modified legs on 7th segment of male)	Eggs laid in thick vegetation, in soil or rotting logs or in cattle dung. Adults in leaf litter, under rocks or logs, or top 50cm of soil, in cool, wet weather often seen on soil / vegetation.	Although corridors are potentially useful linkages between areas of suitable habitat, the mobility of this species is extremely limited. As such, fine-scale changes in habitat characteristics are likely to form barriers to dispersal. Management of remaining areas of suitable habitat is therefore likely to be more important than creation of corridors for this species.	N	N
Gnomeskelus burius	Plough-share keeled millipede	 Source: Dr. Michelle Hamer	Gnomeskelus species: Keeled millipedes: all cream or white coloured, small (generally less than 2cm long), lacking eyes, with 20 segments, and small keels on each side of each segment. Species can only be distinguished on the male gonopods – modified legs on the 7th segment (these structures are quite obvious).	In rotting logs, under rocks or logs, in leaf litter.			

Scientific name	English Name	Photo / Illustration	Description	Habitat preference / Priority areas for species conservation (Nesting sites etc)	Corridor design considerations	Riparian corridors	Terrestrial corridors
Gnomeskelus circulipes	Circular-gonopod keeled millipede	No photo available	As for Gnomeskelus burius	In rotting logs, under rocks or logs, in leaf litter.			
Gnomeskelus jaculator	Javelin flat-backed millipede	No photo available	As for Gnomeskelus burius	In rotting logs, under rocks or logs, in leaf litter.			
Gnomeskelus larvatus	Ghost keeled millipede	No photo available	As for Gnomeskelus burius	In rotting logs, under rocks or logs, in leaf litter.			
Gnomeskelus retrusus	Obscure keeled millipede	No photo available	As for Gnomeskelus burius	In rotting logs, under rocks or logs, in leaf litter.			
Gnomeskelus tuberosus urbanus	Urban lumpy keeled millipede	No photo available	As for Gnomeskelus burius	In rotting logs, under rocks or logs, in leaf litter.			
Ischiolobos mesotopos	Midlands robberfly	No photo available. See Londt (2005b) p. 243 Fig. 6 (entire male), p. 248 Figs 63–64 (female genitalia) Figs 68–70 (male genitalia) Fig. 80 (distribution map) for detailed drawings and more detailed description.	The head is primarily black with black antennae. Thorax and abdomen also primarily black.	Known from Mistbelt grassland, and appears to favour tall grass areas. The species flies from November to February.	Given the mobility of this species, fine-scale corridors between grassland patches are likely to contribute to the conservation of this species.	N	Y
Labeobarbus natalensis	KwaZulu-Natal yellowfish	 Source: Mr. Douglas Macfarlane	Dorsal fin in front of pelvics, primary ray may be flexible (usually in upland fish) or spinous (lowland localities). Barbells well developed, as long as or greater than eye orbit diameter. Colour variable, depending on water clarity and body condition. Fry silvery with irregular dark markings, juvenile's loose dark marks but remain silvery. Adult's olive above, sides bronze, cream below. Attains 638 mm total length.	Found in a wide variety of habitats from pools and the rapids of clear streams to deep turbid waters of larger rivers and impoundments.	Not specifically included in this study. Management of riparian corridors will however be important in limiting impacts to this species.	Y	N
Lioptilus nigricapillus	Bush Blackcap	 Source http://www.hardaker.co.za/bushblackcap1.htm	The Bush Blackcap is distributed from the Eastern Cape through the KwaZulu-Natal interior, Zululand, Eastern Free State and Swaziland to the northern Transvaal. The adults are small in size, 16-18cm, and the sexes are alike in appearance. The top of the head and chin are jet black, the back is brown and the rest of the under parts are light grey. The legs and feet are light pink and the bright pink coral bill contrasts strikingly with the black cap. The juvenile is duller than the adult with light brown wash below, dull brown black cap and dusky pink bill. The call comprises a jumble of rapid, loud melodious notes. Breeding occurs from November to January and cup-shaped nests are placed between 1-6m above the ground in the branches of a leafy tree. Their diet consists predominantly of	Favours afro-montane and mistbelt forest patches and adjacent scrubby hillsides particularly Leucosidea and Buddleia thickets. Breeding sites within the Msunduzi LM have been recorded at Queen Elizabeth Park, Ferncliff and Doreen Clark (Just outside Municipality).	Given the mobility of this species, corridor design is not regarded as particularly important. This species can effectively "hop" from one area of suitable habitat to another. Primary management interventions should be aimed at ensuring maintenance of areas of preferred habitat identified in the systematic conservation plan.	N	N

Scientific name	English Name	Photo / Illustration	Description	Habitat preference / Priority areas for species conservation (Nesting sites etc)	Corridor design considerations	Riparian corridors	Terrestrial corridors
			fruit and insects.				
Microchaetus caementerii	Large Pietermaritzburg earthworm	 Source: Dr. Danuta Plisko	Large, near one meter long. Only identifiable from Microchaetus papillatus by carefully assessing the reproductive system, this is slightly different.	Thought to be extinct. Only known records are from Darvil, Scottsville golf course, St Peters church yard, Scottsville and the centre of town (Boschoff street & Liberty Life building). Suitable habitat was probably primary grassland.	Connectivity is likely to be important for the persistence of this species.	N	Y
Microchaetus papillatus	Green giant earthworm	 Source: Dr. Danuta Plisko	Large species, typically longer than one meter in length. Large, with greenish tint. build large hard casts	Indigenous, undisturbed grasslands, small patches between bushes or agriculture fields	Connectivity is likely to be important for the persistence of this species although corridors may include agricultural lands (rather than only pristine areas).	N	Y
Millenarius graminosus	Grassland millennium robberfly	No photo available. See Londt (2005a) p. 55 Figs 44–48 (male & female genitalia), Figs 52–55 (copulation, oviposition) for detailed drawings and more detailed description.	The head is dark red-brown to black with blackish antennae. Thorax and abdomen both dark red-brown to black with no shiny bare areas.	The species occurs in Mistbelt grassland habitats between December & April.	Given the mobility of this species, fine-scale corridors between grassland patches are likely to contribute to the conservation of this species.	Y	N
Miniopterus fraterculus	Lesser long-fingered bat	 Source:	See below for general description of bats of the genus Miniopterus. Miniopterus fraterculus is slightly smaller than M. natalensis with a forearm length (a standard measure of size in bats measured from wrist to elbow) of around 41-45 mm (42-50mm in M. natalensis) almost impossible to distinguish in the field.	The species utilizes two bat roosts in the Municipality, one at Town Bush cave and another at Doornhoek Tunnel (Old Mine). The species coexists with M. natalensis but in much smaller numbers. No important breeding roosts known within the Municipality	Although maintenance of corridors would provide an additional safeguard for the protection of this species, maintenance of roost sites and appropriate habitat for foraging is regarded as more important for the conservation of this species.	N	N

Scientific name	English Name	Photo / Illustration	Description	Habitat preference / Priority areas for species conservation (Nesting sites etc)	Corridor design considerations	Riparian corridors	Terrestrial corridors
		http://www.mammalogy.org/mil_images/images/ mid/396.jpg					
Miniopterus natalensis	Natal long-fingered bat	 Source: Dr. Peter Taylor	These bats belong to the “vesper” family of bats having a plain face and tail enclosed within the membrane. Long-fingered bats of the genus Miniopterus have an elongated third finger which gives the wing a “bent” look when folded. They are dark brown in colour with a distinctive raised forehead. They can congregate in dense clusters on the walls of caves, individuals packed closely together with thumb claws and hind claws attached to the substrate or each other (thus giving them the alternative name of “clinging bats”)	The species has been recorded at two cave sites in the municipality, Town Bush cave and Doornhoek Tunnel. The latter is an important breeding roost. Much of the foraging takes place within 1km of the cave.			
Myotis tricolor	Temminck's hairy bat	 Source: Dr. Peter Taylor	These bats also bats belong to the “vesper” family of bats having a plain face and tail enclosed within the membrane. They have a distinctive orange coloration which makes them quite easy to spot when they roost in clusters on the walls of caves. They also roost in dense masses as shown below left). They may roost together with long-fingered bats, or horseshoe bats where their orange colour contrasts clearly with the darker brown colour of the latter. The picture on upper left shows two Temminck’s hairy bats on either side of a Geoffrey’s horseshoe bat. Note: photograph provided by Joy Coleman; these bats were photographed roosting in Town Bush Cave	The species utilizes two bat roosts in the Municipality, one at Town Bush cave and another at Doornhoek Tunnel (Old Mine). The latter is an important breeding roost. This species appears to prefer rugged terrain and mountainous areas.			
Natalina quekettiana	Quekett’s cannibal snail	 Source: Dr. Dai Herbert	Shell with low spire and rounded whorls; umbilicus moderately wide and deep; upper surface dull and sculptured by close-set axial riblets, base smoother and glossy. Olive-brown above becoming olive-greenish below. Diameter rarely more than 30 mm. Animal dark brown to blackish.	Described from PMB and currently known only from Ferncliff Nature Reserve. Almost certainly occurs only in indigenous mist-belt forest. A real PMB special. This snail is carnivorous and probably occurs at relatively low population densities	Given the apparent specific habitat requirements (forest) and low mobility of this species, maintenance of remnant forest patches is regarded as more important than developing corridors between forest patches.	N	N

Scientific name	English Name	Photo / Illustration	Description	Habitat preference / Priority areas for species conservation (Nesting sites etc)	Corridor design considerations	Riparian corridors	Terrestrial corridors
Orthoporoides (new Spp)	No common name	 Source: Dr. Michelle Hamer	Males up to 7cm long, slender, shiny black, with red head; females larger, black with greyish-black, with black head and legs.	In top 30cm of soil or leaf litter, often around base of trees, may also be found climbing up tree trunks	Although corridors are potentially useful linkages between areas of suitable habitat, the mobility of this species is extremely limited. As such, fine-scale changes in habitat characteristics are likely to form barriers to dispersal. Management of remaining areas of suitable habitat is therefore likely to be more important than creation of corridors for this species.	N	N
Orycteropus afer	Aardvark	 Source: http://www.gruntandsmell.com/images/aardvark.jpg	This species is unmistakable. Pig-like in general appearance they have a body mass of around 50kg, long ears, an elongated snout and four digits on fore and hind feet sharply armed with long robust claws for digging through termite mounds to obtain their food. The long tail is white is colour.	Prefers open grasslands with presence of termite mounds	Maintenance of corridors between areas of suitable habitat (open grassland areas) is regarded as very important for this species. Corridors would however need to be of suitable habitat as this species is unlikely to move through heavily transformed areas (other than agricultural lands).	N	Y
Otomops martiensseni	Large-eared free-tailed bat	 Source: Dr. Peter Taylor	This bat belongs to the free-tailed family of bats, in which the tail protrudes beyond the hind margin of the tail membrane. They are large bats (mass around 30g, and forearm length of 63mm) with distinctive forward-projecting bonnet-like ears which attach to the long pig-like snout. The coloration is also highly distinctive with the tan-coloured dorsal fur contrasting with the white band around the shoulder and throat. In KZN they have only been found roosting in attics of houses (below left).	Species occurs primarily towards Durban, with two records from the KZN Wildlife QEP building. The species uses artificial roost (old buildings) in SA, preferring areas of rugged terrain.	Although maintenance of corridors would provide an additional safeguard for the protection of this species, maintenance of roost sites and appropriate habitat for foraging is regarded as more important for the conservation of this species.	N	N

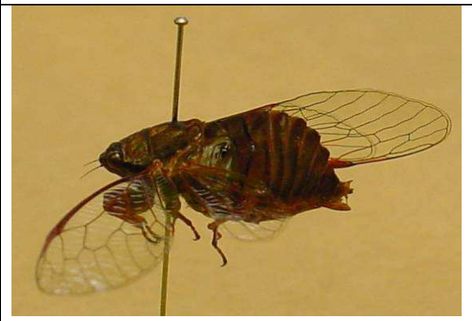
Scientific name	English Name	Photo / Illustration	Description	Habitat preference / Priority areas for species conservation (Nesting sites etc)	Corridor design considerations	Riparian corridors	Terrestrial corridors
Ourebia ourebi ourebi	Oribi	 Source: http://www.huntafrica.ca/animals/oribi.jpg	A distinctive antelope with straight erect horns, pure white belly and underside of tail.	This species prefers open grasslands in flat or undulating terrain. Areas of rank grass or patches of woody vegetation act as important refugia for resting and raising young.	Maintenance of terrestrial corridors is likely to contribute to the persistence of oribi populations. The main constraint to movement is however likely to be the presence of fences that limit movement. Translocation of species is a known viable option for maintaining diversity between isolated populations. Creation of terrestrial corridors has therefore not been prioritized for this species.	N	N
Patinatius bidentatus simulator	No common name	No photo available	Up to 4cm long, slender, yellowish coloured, with distinct black / brownish patterning along back	Leaf litter, often at base of trees, may also be in top 30cm of soil.	Although corridors are potentially useful linkages between areas of suitable habitat, the mobility of this species is extremely limited. As such, fine-scale changes in habitat characteristics are likely to form barriers to dispersal. Management of remaining areas of suitable habitat is therefore likely to be more important than creation of corridors for this species.	N	N
Philantomba monticola bicolor	Blue duiker	 Source: http://i.pbase.com/u36/dougj/large/17052209.152_5265P.jpg	The smallest of the duikers, having distinctively short horns which are present in both sexes. They have a distinctive smooth blue-grey colour, rounded posture and are only found in indigenous forest.	A forest specialist species, persisting in areas of low disturbance (habitat loss & dog predation).	Corridors may be potentially beneficial for this species. It should be noted however that management considerations (controlling snaring, dog poaching etc) are likely to be more important in maintaining habitat populations than linking suitable habitats with terrestrial corridors. Riparian corridors typically include woody vegetation and may also act as useful links between areas of suitable habitat.	Y	Y

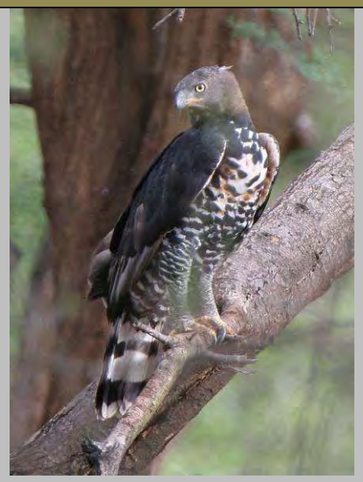
Scientific name	English Name	Photo / Illustration	Description	Habitat preference / Priority areas for species conservation (Nesting sites etc)	Corridor design considerations	Riparian corridors	Terrestrial corridors
Poecilogale albinucha	Striped weasel	 Source: Mr. David Rowe Rowe	This small carnivore can be distinguished on its distinctive skunk-like black and white markings. Unlike the African polecat (Ictonys striatus) which is long-haired, the striped weasel is short-haired.	Specialist of highland and mistbelt moist grassland. Known to occur at QE Park.	Maintenance of corridors may be potentially beneficial for this mobile species.	Y	Y
Polemaetus bellicosus	Martial eagle	 Source http://www.sa-venues.com/wildlife/birds_martial_eagle.htm	The Martial Eagle occurs throughout Africa south of the Sahara and in southern Africa is distributed across the region except Lesotho and the South Western Cape. The adult is 78-83cm long and has a dark brown head and breast. The underparts are spotted and in flight, the dark brown underwings are key features which distinguish it from the smaller Black-chested Snake Eagle. Other features include a relatively short tail, a short crest, yellow iris and pale greenish or bluish white feet. The juvenile has a brown head, grey flecked neck and brownish grey upper parts. The underparts are initially white and the tail is relatively short and finely barred. The species is not particularly vocal but in display gives a rapid kwi-kwi-kwi-kloee-kloee. Breeding occurs mainly between April and June with nests consisting of large platforms of sticks in a tall tree or pylon. Their diet varies regionally but comprises mainly small mammals, birds and reptiles.	This species is generally found in woodlands, open savannah or grasslands with clusters of large trees or pylons used for nest sites. There are no known breeding sites in Msunduzi LM. Although this is regarded as an important species, it has very large home ranges. Note: Despite this species using areas within the Municipality, it is not possible to identify particular areas that should be set aside specifically for the conservation of this species. This species was therefore not included in the conservation planning process.	Not specifically included in this study. It is worth noting however that the mobility of this species means that this eagle can fly between patches of suitable habitat with ease, making corridors less important for the persistence of this species.	N	N
Proandricus thornvillensis	Thornville earthworm	Not available	Large, extending to 40-45 cm. Grey to greenish dorsally	Indigenous grasslands, bushes on the river banks, in moist or wet sites; sometimes in well soaked soil; known only from Thornville area, along of the road to a local school (right side of the road P-mburg - Richmond) - presently only small areas of species persistence along bank of river.	Given the preference of this species for moist sites, maintenance of suitable riparian corridors is likely to be important for the persistence of this species.	Y	N

Scientific name	English Name	Photo / Illustration	Description	Habitat preference / Priority areas for species conservation (Nesting sites etc)	Corridor design considerations	Riparian corridors	Terrestrial corridors
Pronolagus crassicaudatus	Natal red hare	 Source: Dr. Peter Taylor	The Natal red hare has a uniformly reddish brown tail (above and below) which distinguishes it from the more common scrub hare which has a tail which is white underneath and black on top. The ears are relatively shorter in Natal red hares compared with scrub hares. Natal red hares are restricted to occurring on rocky slopes often below cliffs.	Specialist of rocky grass slopes in hilly terrain	Connectivity is likely to be important for the maintenance of isolated populations of this species. Habitat should however be of suitable habitat (grassland / rocky grassland) to facilitate movement between populations.	N	Y
Python sebae natalensis	Southern African Python	 Source: http://www.blueplanetbiomes.org /images/afr_rock_python.jpg	The largest snake in southern Africa, averaging 3-4m. Large specimens over 5m are rare nowadays. Thickset with a triangular head, distinct neck and a thick tail. Dark brown above with grey-brown blotches and dark speckling with widely spaced dark blotches on the sides. Blotches on the upper parts are typically irregularly connected with sinuous dark brown bands. There is a dark arrowhead marking on the crown of the head. The underside is white to dirty-white with dark blotches.	Fairly widespread, preferring rocky outcrops and moist, rocky, well wooded valleys in arid and moist savannah. They are water-dependant species, never found far from permanent water.	Maintenance of corridors between areas of suitable habitat is likely to contribute to the conservation of this species. At present however, no areas of suitable size have been identified for the persistence of this species in the Msunduzi Municipality. Management of existing open space and creation of riparian corridors is however likely to contribute to the conservation of this species.	Y	N
Rhinolophus clivosus zuluensis	Geoffroy's horseshoe bat	 Source: Dr. Peter Taylor	Horseshoe bats are immediately recognized by the complicated noseleaf structure on the face, which comprises a lower horseshoe-shaped crescent and upper flaps which rise to a pointed tip (in leaf-nosed bats this erect pointed flap is missing). Of the two horseshoe bats found in the region Rhinolophus clivosus is larger than R. simulator, being a medium-sized bat having a forearm length of 43 (45-60) mm and a mass of 17g.	Cave dependant species. The species utilizes two bat roosts in the Municipality, one at Town Bush cave and another at Doornhoek Tunnel (Old Mine). Occasionally recorded in winter months from storm drains in central Pietermaritzburg. Heavily reliant on tree cover for foraging.	Although maintenance of corridors would provide an additional safeguard for the protection of this species, maintenance of roost sites and appropriate habitat for foraging is regarded as more important for the conservation of this species.	N	N

Scientific name	English Name	Photo / Illustration	Description	Habitat preference / Priority areas for species conservation (Nesting sites etc)	Corridor design considerations	Riparian corridors	Terrestrial corridors
Rhinolophus simulator	Bushveld horseshoe bat	 Source: Dr. Peter Taylor	See above: R. simulator can be distinguished from R. clivosus on its size, being a smaller bat, having a mass of around 9g and a forearm length of around 44 (42-48)mm	Cave dependant species. The species utilizes a single bat roost in the Municipality, at Doornhoek Tunnel (Old Mine), although found occasionally at Town Bush Cave. Heavily reliant on tree cover for foraging.			
Rhopaleskelus pietermaritzburgensi	Pietermaritzburg keeled millipede	See Gnomeskelus	Similar to Gnomeskelus. Species can only be confirmed by examination of male gonopods (modified legs on 7th segment of male)	In rotting logs, under rocks or logs, in leaf litter.	Although corridors are potentially useful linkages between areas of suitable habitat, the mobility of this species is extremely limited. As such, fine-scale changes in habitat characteristics are likely to form barriers to dispersal. Management of remaining areas of suitable habitat is therefore likely to be more important than creation of corridors for this species.	N	N
Schoenicola brevirostris	Broad-tailed Warbler	 Photo by Alan Manson, Cedara, KwaZulu-Natal	The Broad-tailed Warbler occurs from Cameroon and Ethiopia in the north through to the moister eastern parts of Southern Africa. The adults are small in size, 15-16cm and alike in appearance. The upperparts are buffy or rusty brown and contrast with the long broad blackish tail that is barred buff underneath. The juvenile has a shorter, narrower tail with more rufous upperparts. The call is a slow deliberate, high-pitched tsee, tsee, tsee, tsee. Breeding takes place from November through March and the nest comprises a bulky cup of loosely woven coarse, dry grass. Their diet consists of insects.	Inhabits marshy grassland, tall rank grassland along drainage lines and moist grassy hillsides. Breeding sites in the Pietermaritzburg area have been recorded at Darvil, Foxhill and Thornville,	Given the mobility of this species, corridor design is not regarded as critically important. Maintenance of riparian corridors will however help promote movement between areas of suitable habitat for this species.	Y	N

Scientific name	English Name	Photo / Illustration	Description	Habitat preference / Priority areas for species conservation (Nesting sites etc)	Corridor design considerations	Riparian corridors	Terrestrial corridors
Sheldonia burnupi	Burnup's tail-wagger	 Source: Dr. Dai Herbert	Shell small to moderate in size, rounded and very fragile. Shell translucent, pale yellowish with colour of underlying tissues showing through, the apical whorls whitish. Diameter up to 15.0 mm.	Rediscovered in 2004, this snail inhabits grassland in the mist belt of the KZN Midlands, to which it is endemic. Within the municipality the grassland of Wiley Park and beneath World's View seem to provide the most suitable habitat	Given the apparent specific habitat requirements (grassland) and low mobility of this species, maintenance of habitat in known localities is regarded as more important than developing corridors between areas of suitable habitat.	N	N
Sphaerotherium hanstromi	Hanstrom's pill millipede	 Source: Dr. Michelle Hamer	Colour may vary. Species can only be confirmed by examination of various characters – modified legs of male on last segment.	In rotting logs, under rocks or logs, in leaf litter.	Although corridors are potentially useful linkages between areas of suitable habitat, the mobility of this species is extremely limited. As such, fine-scale changes in habitat characteristics are likely to form barriers to dispersal. Management of remaining areas of suitable habitat is therefore likely to be more important than creation of corridors for this species.	N	N
Spinotarsus destructus	Destructive slender-spined millipede	 Source: Dr. Michelle Hamer	Long (up to 7cm), slender, dark brown coloured, with small pair of spines on last segment. Snake-like behaviour when threatened. Species can only be confirmed by examination of male gonopods (modified legs on 7th segment of male)	Under rocks and cattle dung			
Spinotarsus dingaanus	Dingaan's slender-spined millipede	No photo available	Long (up to 7cm), slender (less than 0.3cm wide), dark brown coloured, with small pair of spines on last segment. Snake-like behaviour when threatened. Species can only be confirmed by examination of male gonopods (modified legs on 7th segment of male)	In rotting logs, under rocks or logs, in leaf litter.			
Spinotarsus krausi	Kraus' slender-spined millipede	No photo available	Long (up to 7cm), slender (less than 0.3cm wide), with small pair of spines on last segment. Snake-like behaviour when threatened. Colour may be	In rotting logs, under rocks or logs, in leaf litter.			

Scientific name	English Name	Photo / Illustration	Description	Habitat preference / Priority areas for species conservation (Nesting sites etc)	Corridor design considerations	Riparian corridors	Terrestrial corridors
			different. Species can only be confirmed by examination of male gonopods (modified legs on 7th segment of male)				
Spinotarsus lawrencei	Lawrence's slender-spined millipede	No photo available	Long (up to 7cm), slender (less than 0.3cm), with small pair of spines on last segment. Snake-like behaviour when threatened. Colour may be different. Species can only be confirmed by examination of male gonopods (modified legs on 7th segment of male)	In rotting logs, under rocks or logs, in leaf litter.			
Spinotarsus maritzburgensis	Maritzburg slender-spined millipede	 Source: Dr. Michelle Hamer	Long (up to 7cm), slender (less than 0.3cm), dark brown coloured, with small pair of spines on last segment. Snake-like behaviour when threatened. Species can only be confirmed by examination of male gonopods (modified legs on 7th segment of male)	Under rocks, in leaf litter or top 30cm of soil.			
Stagira purpurea	Purple cicada	 Source: Dr. Adrian Armstrong	A small reddish-purple coloured cicada with green underneath the thorax. Forewing length = 19 mm.	Eastern Mistbelt forests. Prefers forest edge and other areas within the forest with good light penetration.	Given the mobility of this species, corridors between forest patches are likely to contribute to the conservation of this species.	N	Y

Scientific name	English Name	Photo / Illustration	Description	Habitat preference / Priority areas for species conservation (Nesting sites etc)	Corridor design considerations	Riparian corridors	Terrestrial corridors
Stephanoaetus coronatus	African Crowned Eagle	 Source http://www.hardaker.co.za/africancrownedeagle1.htm	The African Crowned Eagle is distributed across Tropical Africa but in South Africa is found discontinuously to the south and east largely because of fragmented habitat. The adult is 80-90cm in length with the female considerably larger than the male. The plumage is dark and blotched and the underparts are barred. In flight, the short broad wings are rufous in front and white behind with black barring. The iris is pale yellow, the bill is black and the gape and feet are yellow. The head and underparts of the juvenile are initially creamy white and the upperparts are light grey brown with a scalloped appearance. The tail is broadly barred and the neck is white, distinguishing it from the grey-fleck of the juvenile Martial Eagle. During aerial display, the female call is a melodious kewick-kewick-kewick and the male is a deeper kooi-kooi-kooi. In South Africa, breeding takes place mainly from August to October and large stick platform nests are built in the tallest canopy trees. Ninety-eight percent of their diet comprises small mammals including hyraxes, monkeys, antelope, hares, mongooses and genets.	Generally occurs in dense indigenous forest or woodlands, riparian forest or gum and pine plantations. Known nest sites in the Msunduzi LM have been located below Roberts Road and Queen Elizabeth Park and at Ferncliff and Winterskloof. Most know nest sites have been in large gum trees rather than in natural forest areas. Conservation of this species should focus on conservation of nest sites (currently not mapped) and instilling a conservation ethic that promotes the conservation of this and other raptor species. Note: Despite this species using areas within the Municipality, it is not possible to identify particular areas that should be set aside specifically for the conservation of this species. This species was therefore not included in the conservation planning process.	Not specifically included in this study. It is worth noting however that the mobility of this species means that this eagle can fly between patches of suitable habitat with ease, making corridors less important for the persistence of this species.	N	N
Tritogenia shawi	Shaw's earthworm	No photo available	In life moderate in size, compact, as “20-25 sausage roll, not pigmented	Only from indigenous, not disturbed grasslands and woody areas, sometimes been found in freshly made gardens but not persisting under extended agriculture practices.	Connectivity is likely to be important for the persistence of this species.	N	Y
Typhloxenus modestus	Modest millipede	 Source: Dr. Michelle Hamer	Minute (less than 1cm), white / cream coloured, resembles a caterpillar, with tufts of long bristles along sides of body.	In leaf litter, may also be found in trees on bark of trunk or branches	Although corridors are potentially useful linkages between areas of suitable habitat, the mobility of this species is extremely limited. As such, fine-scale changes in habitat characteristics are likely to form barriers to dispersal. Management of remaining areas of suitable habitat is therefore likely to be more important than creation of corridors for this species.	N	N

Scientific name	English Name	Photo / Illustration	Description	Habitat preference / Priority areas for species conservation (Nesting sites etc)	Corridor design considerations	Riparian corridors	Terrestrial corridors
Tyto capensis	African Grass-Owl, Grass Owl	 Source http://www.warwicktarboton.co.za/birdpgs/393GrOwl.html	The Grass Owl is found in Asia, Australia and Africa where it is distributed from Ethiopia to the eastern and moister parts of South Africa. The adults are 34-37cm long and resemble the Barn Owl. The upperparts are dark brown and the underparts are whitish with a buffy breast. In flight, the legs and yellowish pink feet protrude past a short tail. The white to pale brownish heart-shaped face contrasts with dark eyes. The juvenile is similar to the adult but buffier below. The call is a muted screech or a high pitched churring hiss. In South Africa, breeding occurs between February and April with nests comprised of a flimsy pad at the end of a tunnel of dense grass. Their diet includes rodents, predominantly vlei rats, birds and insects.	Usually occurs in long grass near water, vleis or marshes. May also be found in dense short grassland. In Pietermaritzburg breeding sites have been recorded at Thornville and Foxhill.	Given the mobility of this species, corridor design is not regarded as critically important, with birds able to fly between areas of suitable habitat. Maintenance of riparian corridors will however help promote movement between areas of suitable habitat for this species.	Y	N
Ulodesmus bispinosus	Two-spined soil millipede	See Ulodesmus major	Keeled millipedes: more robust than Gnomeskelus, also without eyes, yellowish / golden brown colour, with distinct keels along sides of segments. Species can only be confirmed by examination of male gonopods (modified legs on 7th segment of male)	In rotting logs, under rocks or logs, in leaf litter or in top 30cm soil.	Although corridors are potentially useful linkages between areas of suitable habitat, the mobility of this species is extremely limited. As such, fine-scale changes in habitat characteristics are likely to form barriers to dispersal. Management of remaining areas of suitable habitat is therefore likely to be more important than creation of corridors for this species.	N	N
Ulodesmus fossor	Digger soil millipede	See Ulodesmus major	As above.	In rotting logs, under rocks or logs, in leaf litter or in top 30cm soil.			
Ulodesmus major	Major soil millipede	 Source: Dr. Michelle Hamer	Large Ulodesmus, up to 4cm long and 0.5cm wide. Species can only be confirmed by examination of male gonopods (modified legs on 7th segment of male)	In rotting logs, under rocks or logs, in leaf litter or in top 30cm soil.			