



**TRANSNET NATIONAL PORTS AUTHORITY**

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# **Richards Bay Port Ecological Assessment: Cassuarina**

## **FAUNAL ASSESSMENT**

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## SPECIALIST REPORT DETAILS

This report has been prepared as per the requirements of Section 32 of Government Notice No. R. 543 dated 18 June 2010 (Environmental Impact Assessment Regulations) under sections 24(5), 24M and 44 of the National Environmental Management Act, 1998 (Act 107 of 1998).

Signed:

Date: March 2016

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### Declaration

I, **Stephen Leslie Burton**, declare that I –

- *act as an independent specialist consultant in the field of Ecology and have undertaken the **Faunal Assessment** for the site identified for assessment and known as **Cassuarina in Richards Bay Port, in KwaZulu-Natal;***
- *do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2010;*
- *have and will not have any vested interest in the proposed activity proceeding;*
- *have no, and will not engage in, conflicting interests in the undertaking of the activity;*
- *undertake to disclose, to the competent authority, any material information that have or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document required in terms of the Environmental Impact Assessment Regulations, 2010; and*
- *will provide the competent authority with access to all information at our disposal regarding the application, whether such information is favourable to the applicant or not.*

# TRANSNET NATIONAL PORTS AUTHORITY

## RICHARDS BAY PORT ECOLOGICAL ASSESSMENT: CASSUARINA

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# TRANSNET NATIONAL PORTS AUTHORITY

## RICHARDS BAY PORT ECOLOGICAL ASSESSMENT: CASSUARINA

### FAUNAL ASSESSMENT

#### 1 INTRODUCTION

**SiVEST SA (Pty) Ltd (SiVEST) Environmental Division** was appointed by the **Transnet National Ports Authority (TNPA)** to undertake a specialist Faunal Assessment for Cassuarina within the Richards Bay Port, KwaZulu-Natal.

The purpose of this study is to assess the present ecological state of the faunal diversity within the study site. Appropriate recommendations have been provided.

##### ***1.1 Assumptions and Limitations***

This study has only focused on the identification of faunal species that may occur on site, or were noted on site during extensive fieldwork. Night time surveys for frog and chameleon species were limited to three 4 hour field sessions in a number of the wetland units for frog species, and within vegetation units that contained the correct mix of ecotonal plant species that chameleons frequent.

A thorough vegetation identification exercise was not undertaken, as this forms part of the vegetation assessment that is the focus of another report.

#### 2 LOCAL SETTING

The study site is located within Richards Bay Port, Kwazulu-Natal and is a large portion of land that includes a mangrove swamp and a large wetland system (see **Figure 1** below). The study site is bounded in the south and west by salt water systems, and the majority of the terrestrial system is dominated by alien plant species, with some indigenous vegetation present (for further information regarding the vegetation and wetlands of the site please see the vegetation and wetland reports for this area).



Figure 1: Site Overview

### 3 METHODOLOGICAL APPROACH

#### 3.1 Desktop Assessment

There are 6 species of fauna that are highlighted by the EKZSW CBA data (Refer to Table 1 below), as potentially occurring across the site, including two millipede species, two grasshopper species, one mollusc, and one butterfly. The millipede species vary from forest related species, to grassland species, and these will be assessed during the fieldwork, but both of the species noted as potentially occurring on the site are unlikely to occur as they have very limited ranges, and do not occur anywhere near the study area. The butterfly species is closely associated with coastal dune forest and is unlikely to occur on the site. The mollusc species, and the two grasshopper species may occur, and will be assessed on site during the survey. The potential presence of Chameleons and Frogs will require night time surveys of the various wetland and grassland areas during fieldwork.

**Table 1. Species predicted to occur from EKZNW CBA database**

Scientific Name	Common Name or group
<i>Teriomima zuluana</i>	Zulu Buff
<i>Whitea coniceps</i>	Grasshopper
<i>Parepistaurus eburneatus</i>	Grasshopper
<i>Orthoporoides corrugatus</i>	millipede
<i>Centrobolus fulgidus</i>	millipede
<i>Gulella zuluensis</i>	Mollusc

In addition to the above, the South African Bird Atlas Database was also queried to determine which bird species have been recorded within the study area. The complete list includes 337 species as listed in **Table 2** below.

**Table 2. Species recorded in the South African Bird Atlas database**

Common name	Scientific Name	Conservation Status
Grebe, Little	<i>Tachybaptus ruficollis</i>	
Pelican, Pink-backed	<i>Pelecanus rufescens</i>	Vulnerable
Pelican, Great White	<i>Pelecanus onocrotalus</i>	Near Threatened
Gannet, Cape	<i>Morus capensis</i>	Vulnerable
Cormorant, White-breasted	<i>Phalacrocorax carbo</i>	
Cormorant, Cape	<i>Phalacrocorax capensis</i>	Near Threatened
Cormorant, Reed	<i>Phalacrocorax africanus</i>	
Darter, African	<i>Anhinga rufa</i>	
Heron, Grey	<i>Ardea cinerea</i>	
Heron, Black-headed	<i>Ardea melanocephala</i>	
Heron, Goliath	<i>Ardea goliath</i>	
Heron, Purple	<i>Ardea purpurea</i>	
Egret, Great	<i>Egretta alba</i>	
Egret, Little	<i>Egretta garzetta</i>	
Egret, Yellow-billed	<i>Egretta intermedia</i>	
Egret, Cattle	<i>Bubulcus ibis</i>	
Heron, Squacco	<i>Ardeola ralloides</i>	
Heron, Green-backed	<i>Butorides striata</i>	
Heron, Black	<i>Egretta ardesiaca</i>	
Bittern, Little	<i>Ixobrychus minutus</i>	
Night-Heron, Black-crowned	<i>Nycticorax nycticorax</i>	
Hamerkop, Hamerkop	<i>Scopus umbretta</i>	

Common name	Scientific Name	Conservation Status
Openbill, African	<i>Anastomus lamelligerus</i>	Near Threatened
Stork, Saddle-billed	<i>Ephippiorhynchus senegalensis</i>	Endangered
Stork, Yellow-billed	<i>Mycteria ibis</i>	Near Threatened
Stork, Woolly-necked	<i>Ciconia episcopus</i>	Near Threatened
Stork, White	<i>Ciconia ciconia</i>	
Ibis, African Sacred	<i>Threskiornis aethiopicus</i>	
Ibis, Glossy	<i>Plegadis falcinellus</i>	
Ibis, Hageda	<i>Bostrychia hagedash</i>	
Spoonbill, African	<i>Platalea alba</i>	
Flamingo, Greater	<i>Phoenicopterus ruber</i>	Near Threatened
Flamingo, Lesser	<i>Phoenicopterus minor</i>	Near Threatened
Goose, Spur-winged	<i>Plectropterus gambensis</i>	
Goose, Egyptian	<i>Alopochen aegyptiacus</i>	
Pygmy-Goose, African	<i>Nettapus auritus</i>	Near Threatened
Shoveler, Cape	<i>Anas smithii</i>	
Duck, African Black	<i>Anas sparsa</i>	
Duck, Yellow-billed	<i>Anas undulata</i>	
Teal, Red-billed	<i>Anas erythrorhyncha</i>	
Teal, Cape	<i>Anas capensis</i>	
Teal, Hottentot	<i>Anas hottentota</i>	
Duck, White-faced	<i>Dendrocygna viduata</i>	
Duck, Fulvous	<i>Dendrocygna bicolor</i>	
Duck, White-backed	<i>Thalassornis leuconotus</i>	
Vulture, Palm-nut	<i>Gypohierax angolensis</i>	
Falcon, Peregrine	<i>Falco peregrinus</i>	Near Threatened
Falcon, Lanner	<i>Falco biarmicus</i>	Near Threatened
Hobby, Eurasian	<i>Falco subbuteo</i>	
Falcon, Amur	<i>Falco amurensis</i>	
Hawk, African Cuckoo	<i>Aviceda cuculoides</i>	
Kite, Black & Yellow-billed	<i>Milvus migrans</i>	
Kite, Yellow-billed	<i>Milvus aegyptius</i>	
Kite, Black-shouldered	<i>Elanus caeruleus</i>	
Honey-buzzard, European	<i>Pernis apivorus</i>	
Eagle, Long-crested	<i>Lophaetus occipitalis</i>	

Common name	Scientific Name	Conservation Status
Eagle, African Crowned	<i>Stephanoaetus coronatus</i>	
Buzzard, Lizard	<i>Kaupifalco monogrammicus</i>	
Snake-eagle, Brown	<i>Circaetus cinereus</i>	
Snake-eagle, Black-chested	<i>Circaetus pectoralis</i>	
Snake-eagle, Southern Banded	<i>Circaetus fasciolatus</i>	Vulnerable
Fish-eagle, African	<i>Haliaeetus vocifer</i>	
Buzzard, Steppe	<i>Buteo vulpinus</i>	
Sparrowhawk, Little	<i>Accipiter minullus</i>	
Sparrowhawk, Black	<i>Accipiter melanoleucus</i>	
Goshawk, African	<i>Accipiter tachiro</i>	
Marsh-harrier, African	<i>Circus ranivorus</i>	Vulnerable
Harrier-Hawk, African	<i>Polyboroides typus</i>	
Osprey, Osprey	<i>Pandion haliaetus</i>	
Spurfowl, Natal	<i>Pternistis natalensis</i>	
Spurfowl, Swainson's	<i>Pternistis swainsonii</i>	
Quail, Common	<i>Coturnix coturnix</i>	
Guineafowl, Helmeted	<i>Numida meleagris</i>	
Guineafowl, Crested	<i>Guttera edouardi</i>	
Buttonquail, Kurrichane	<i>Turnix sylvaticus</i>	
Rail, African	<i>Rallus caerulescens</i>	
Crake, Black	<i>Amaurornis flavirostris</i>	
Flufftail, Buff-spotted	<i>Sarothrura elegans</i>	
Swamphen, African Purple	<i>Porphyrio madagascariensis</i>	
Moorhen, Common	<i>Gallinula chloropus</i>	
Coot, Red-knobbed	<i>Fulica cristata</i>	
Finfoot, African	<i>Podica senegalensis</i>	Vulnerable
Crane, Grey Crowned	<i>Balearica regulorum</i>	Vulnerable
Bustard, Denham's	<i>Neotis denhami</i>	
Bustard, Black-bellied	<i>Lissotis melanogaster</i>	Near Threatened
Jacana, African	<i>Actophilornis africanus</i>	
Jacana, Lesser	<i>Microparra capensis</i>	Near Threatened
Painted-snipe, Greater	<i>Rostratula benghalensis</i>	Near Threatened
Turnstone, Ruddy	<i>Arenaria interpres</i>	
Plover, Common Ringed	<i>Charadrius hiaticula</i>	



Common name	Scientific Name	Conservation Status
Plover, Lesser Sand	<i>Charadrius mongolus</i>	
Plover, White-fronted	<i>Charadrius marginatus</i>	
Plover, Kittlitz's	<i>Charadrius pecuarius</i>	
Plover, Three-banded	<i>Charadrius tricollaris</i>	
Plover, Greater Sand	<i>Charadrius leschenaultii</i>	
Plover, Grey	<i>Pluvialis squatarola</i>	
Lapwing, Crowned	<i>Vanellus coronatus</i>	
Lapwing, Black-winged	<i>Vanellus melanopterus</i>	
Lapwing, Blacksmith	<i>Vanellus armatus</i>	
Lapwing, African Wattled	<i>Vanellus senegallus</i>	
Snipe, African	<i>Gallinago nigripennis</i>	
Sandpiper, Curlew	<i>Calidris ferruginea</i>	
Stint, Little	<i>Calidris minuta</i>	
Knot, Red	<i>Calidris canutus</i>	
Sanderling, Sanderling	<i>Calidris alba</i>	
Ruff, Ruff	<i>Philomachus pugnax</i>	
Sandpiper, Terek	<i>Xenus cinereus</i>	
Sandpiper, Common	<i>Actitis hypoleucos</i>	
Sandpiper, Marsh	<i>Tringa stagnatilis</i>	
Greenshank, Common	<i>Tringa nebularia</i>	
Sandpiper, Wood	<i>Tringa glareola</i>	
Godwit, Bar-tailed	<i>Limosa lapponica</i>	
Curlew, Eurasian	<i>Numenius arquata</i>	
Whimbrel, Common	<i>Numenius phaeopus</i>	
Avocet, Pied	<i>Recurvirostra avosetta</i>	
Stilt, Black-winged	<i>Himantopus himantopus</i>	
Plover, Crab	<i>Dromas ardeola</i>	
Thick-knee, Water	<i>Burhinus vermiculatus</i>	
Thick-knee, Spotted	<i>Burhinus capensis</i>	
Courser, Bronze-winged	<i>Rhinoptilus chalcopterus</i>	
Pratincole, Collared	<i>Glareola pratincola</i>	Near Threatened
Skua, Subantarctic	<i>Catharacta antarctica</i>	
Gull, Kelp	<i>Larus dominicanus</i>	
Gull, Grey-headed	<i>Larus cirrocephalus</i>	

Common name	Scientific Name	Conservation Status
Gull, Hartlaub's	<i>Larus hartlaubii</i>	
Tern, Caspian	<i>Sterna caspia</i>	Near Threatened
Tern, Common	<i>Sterna hirundo</i>	
Tern, Sandwich	<i>Sterna sandvicensis</i>	
Tern, Lesser Crested	<i>Sterna bengalensis</i>	
Tern, Swift	<i>Sterna bergii</i>	
Tern, Little	<i>Sterna albifrons</i>	
Tern, White-winged	<i>Chlidonias leucopterus</i>	
Tern, Whiskered	<i>Chlidonias hybrida</i>	
Pigeon, Speckled	<i>Columba guinea</i>	
Olive-pigeon, African	<i>Columba arquatrix</i>	
Dove, Red-eyed	<i>Streptopelia semitorquata</i>	
Turtle-dove, Cape	<i>Streptopelia capicola</i>	
Dove, Laughing	<i>Streptopelia senegalensis</i>	
Dove, Namaqua	<i>Oena capensis</i>	
Dove, Tambourine	<i>Turtur tympanistria</i>	
Wood-dove, Emerald-spotted	<i>Turtur chalcospilos</i>	
Dove, Lemon	<i>Aplopelia larvata</i>	
Green-pigeon, African	<i>Treron calvus</i>	
Turaco, Purple-crested	<i>Gallirex porphyreolophus</i>	
Cuckoo, Red-chested	<i>Cuculus solitarius</i>	
Cuckoo, Black	<i>Cuculus clamosus</i>	
Cuckoo, Jacobin	<i>Clamator jacobinus</i>	
Cuckoo, African Emerald	<i>Chrysococcyx cupreus</i>	
Cuckoo, Klaas's	<i>Chrysococcyx klaas</i>	
Cuckoo, Diderick	<i>Chrysococcyx caprius</i>	
Malkoha, Green	<i>Ceuthmochares australis</i>	
Owl, Barn	<i>Tyto alba</i>	
Owl, Marsh	<i>Asio capensis</i>	
Eagle-owl, Spotted	<i>Bubo africanus</i>	
Nightjar, European	<i>Caprimulgus europaeus</i>	
Nightjar, Fiery-necked	<i>Caprimulgus pectoralis</i>	
Nightjar, Square-tailed	<i>Caprimulgus fossii</i>	
Swift, African Black	<i>Apus barbatus</i>	

Common name	Scientific Name	Conservation Status
Swift, White-rumped	<i>Apus caffer</i>	
Swift, Little	<i>Apus affinis</i>	
Palm-swift, African	<i>Cypsiurus parvus</i>	
Mousebird, Speckled	<i>Colius striatus</i>	
Mousebird, Red-faced	<i>Urocolius indicus</i>	
Trogon, Narina	<i>Apaloderma narina</i>	
Kingfisher, Pied	<i>Ceryle rudis</i>	
Kingfisher, Giant	<i>Megaceryle maximus</i>	
Kingfisher, Half-collared	<i>Alcedo semitorquata</i>	Near Threatened
Kingfisher, Malachite	<i>Alcedo cristata</i>	
Pygmy-Kingfisher, African	<i>Ispidina picta</i>	
Kingfisher, Mangrove	<i>Halcyon senegaloides</i>	Vulnerable
Kingfisher, Brown-hooded	<i>Halcyon albiventris</i>	
Kingfisher, Striped	<i>Halcyon chelicuti</i>	
Bee-eater, European	<i>Merops apiaster</i>	
Bee-eater, Blue-cheeked	<i>Merops persicus</i>	
Bee-eater, White-fronted	<i>Merops bullockoides</i>	
Bee-eater, Little	<i>Merops pusillus</i>	
Roller, European	<i>Coracias garrulus</i>	
Roller, Broad-billed	<i>Eurystomus glaucurus</i>	
Hoopoe, African	<i>Upupa africana</i>	
Hornbill, Trumpeter	<i>Bycanistes bucinator</i>	
Barbet, Black-collared	<i>Lybius torquatus</i>	
Barbet, White-eared	<i>Stactolaema leucotis</i>	
Tinkerbird, Red-fronted	<i>Pogoniulus pusillus</i>	
Tinkerbird, Yellow-rumped	<i>Pogoniulus bilineatus</i>	
Barbet, Crested	<i>Trachyphonus vaillantii</i>	
Honeyguide, Greater	<i>Indicator indicator</i>	
Honeyguide, Scaly-throated	<i>Indicator variegatus</i>	
Honeyguide, Lesser	<i>Indicator minor</i>	
Honeybird, Brown-backed	<i>Prodotiscus regulus</i>	
Woodpecker, Golden-tailed	<i>Campethera abingoni</i>	
Woodpecker, Cardinal	<i>Dendropicos fuscescens</i>	
Woodpecker, Olive	<i>Dendropicos griseocephalus</i>	

Common name	Scientific Name	Conservation Status
Lark, Rufous-naped	<i>Mirafra africana</i>	
Lark, Sabota	<i>Calendulauda sabota</i>	
Swallow, Barn	<i>Hirundo rustica</i>	
Swallow, White-throated	<i>Hirundo albigularis</i>	
Swallow, Wire-tailed	<i>Hirundo smithii</i>	
Swallow, Grey-rumped	<i>Pseudhirundo griseopyga</i>	
Swallow, Red-breasted	<i>Hirundo semirufa</i>	
Swallow, Greater Striped	<i>Hirundo cucullata</i>	
Swallow, Lesser Striped	<i>Hirundo abyssinica</i>	
Martin, Rock	<i>Hirundo fuligula</i>	
House-martin, Common	<i>Delichon urbicum</i>	
Martin, Sand	<i>Riparia riparia</i>	
Martin, Brown-throated	<i>Riparia paludicola</i>	
Martin, Banded	<i>Riparia cincta</i>	
Saw-wing, Black (Southern race)	<i>Psaldoprocne holomelaena</i>	
Cuckoo-shrike, Black	<i>Campephaga flava</i>	
Cuckoo-shrike, Grey	<i>Coracina caesia</i>	
Drongo, Fork-tailed	<i>Dicrurus adsimilis</i>	
Drongo, Square-tailed	<i>Dicrurus ludwigii</i>	
Oriole, Eurasian Golden	<i>Oriolus oriolus</i>	
Oriole, Black-headed	<i>Oriolus larvatus</i>	
Crow, Pied	<i>Corvus albus</i>	
Crow, Cape	<i>Corvus capensis</i>	
Tit, Southern Black	<i>Parus niger</i>	
Bulbul, Dark-capped	<i>Pycnonotus tricolor</i>	
Brownbul, Terrestrial	<i>Phyllastrephus terrestris</i>	
Greenbul, Yellow-bellied	<i>Chlorocichla flaviventris</i>	
Greenbul, Sombre	<i>Andropadus importunus</i>	
Thrush, Kurrichane	<i>Turdus libonyanus</i>	
Thrush, Groundscraper	<i>Psophocichla litsipsirupa</i>	
Ground-thrush, Spotted	<i>Zoothera guttata</i>	Endangered
Chat, Familiar	<i>Cercomela familiaris</i>	
Stonechat, African	<i>Saxicola torquatus</i>	
Robin-chat, Chorister	<i>Cossypha dichroa</i>	

Common name	Scientific Name	Conservation Status
Robin-chat, Red-capped	<i>Cossypha natalensis</i>	
Robin-chat, Cape	<i>Cossypha caffra</i>	
Scrub-robin, Brown	<i>Cercotrichas signata</i>	
Scrub-robin, White-browed	<i>Cercotrichas leucophrys</i>	
Warbler, Garden	<i>Sylvia borin</i>	
Warbler, Willow	<i>Phylloscopus trochilus</i>	
Reed-warbler, Great	<i>Acrocephalus arundinaceus</i>	
Swamp-warbler, Lesser	<i>Acrocephalus gracilirostris</i>	
Reed-warbler, African	<i>Acrocephalus baeticatus</i>	
Warbler, Marsh	<i>Acrocephalus palustris</i>	
Rush-warbler, Little	<i>Bradypterus baboecala</i>	
Crombec, Long-billed	<i>Sylvietta rufescens</i>	
Apalis, Bar-throated	<i>Apalis thoracica</i>	
Apalis, Rudd's	<i>Apalis ruddi</i>	Near Threatened
Apalis, Yellow-breasted	<i>Apalis flavida</i>	
Camaroptera, Green-backed	<i>Camaroptera brachyura</i>	
Cisticola, Zitting	<i>Cisticola juncidis</i>	
Neddicky, Neddicky	<i>Cisticola fulvicapilla</i>	
Cisticola, Rattling	<i>Cisticola chiniana</i>	
Cisticola, Red-faced	<i>Cisticola erythrops</i>	
Cisticola, Croaking	<i>Cisticola natalensis</i>	
Cisticola, Lazy	<i>Cisticola aberrans</i>	
Prinia, Tawny-flanked	<i>Prinia subflava</i>	
Flycatcher, Spotted	<i>Muscicapa striata</i>	
Flycatcher, African Dusky	<i>Muscicapa adusta</i>	
Flycatcher, Ashy	<i>Muscicapa caerulescens</i>	
Tit-flycatcher, Grey	<i>Myioparus plumbeus</i>	
Flycatcher, Pale	<i>Bradornis pallidus</i>	
Flycatcher, Southern Black	<i>Melaenornis pammelaina</i>	
Flycatcher, Fiscal	<i>Sigelus silens</i>	
Warbler, Dark-capped Yellow	<i>Chloropeta natalensis</i>	
Batis, Chinspot	<i>Batis molitor</i>	
Wattle-eye, Black-throated	<i>Platysteira peltata</i>	Near Threatened
Crested-flycatcher, Blue-mantled	<i>Trochocercus cyanomelas</i>	

Common name	Scientific Name	Conservation Status
Paradise-flycatcher, African	<i>Terpsiphone viridis</i>	
Wagtail, African Pied	<i>Motacilla aguimp</i>	
Wagtail, Cape	<i>Motacilla capensis</i>	
Wagtail, Mountain	<i>Motacilla clara</i>	
Wagtail, Yellow	<i>Motacilla flava</i>	
Pipit, African	<i>Anthus cinnamomeus</i>	
Pipit, Striped	<i>Anthus lineiventris</i>	
Longclaw, Yellow-throated	<i>Macronyx croceus</i>	
Fiscal, Common (Southern)	<i>Lanius collaris</i>	
Shrike, Red-backed	<i>Lanius collurio</i>	
Boubou, Southern	<i>Laniarius ferrugineus</i>	
Puffback, Black-backed	<i>Dryoscopus cubla</i>	
Tchagra, Black-crowned	<i>Tchagra senegalus</i>	
Bush-shrike, Olive	<i>Telophorus olivaceus</i>	
Bush-shrike, Orange-breasted	<i>Telophorus sulfureopectus</i>	
Bush-shrike, Gorgeous	<i>Telophorus quadricolor</i>	
Bush-shrike, Grey-headed	<i>Malaconotus blanchoti</i>	
Nicator, Eastern	<i>Nicator gularis</i>	
Brubru, Brubru	<i>Nilaus afer</i>	
Starling, Common	<i>Sturnus vulgaris</i>	
Myna, Common	<i>Acridotheres tristis</i>	
Starling, Wattled	<i>Creatophora cinerea</i>	
Starling, Violet-backed	<i>Cinnyricinclus leucogaster</i>	
Starling, Cape Glossy	<i>Lamprotornis nitens</i>	
Starling, Black-bellied	<i>Lamprotornis corruscus</i>	
Starling, Red-winged	<i>Onychognathus morio</i>	
Sunbird, Purple-banded	<i>Cinnyris bifasciatus</i>	
Sunbird, White-bellied	<i>Cinnyris talatala</i>	
Sunbird, Grey	<i>Cyanomitra veroxii</i>	
Sunbird, Olive	<i>Cyanomitra olivacea</i>	
Sunbird, Collared	<i>Hedydipna collaris</i>	
Sunbird, Amethyst	<i>Chalcomitra amethystina</i>	
Sunbird, Scarlet-chested	<i>Chalcomitra senegalensis</i>	
Sparrow, House	<i>Passer domesticus</i>	

Common name	Scientific Name	Conservation Status
Petronia, Yellow-throated	<i>Petronia superciliaris</i>	
Weaver, Dark-backed	<i>Ploceus bicolor</i>	
Weaver, Spectacled	<i>Ploceus ocularis</i>	
Masked-weaver, Lesser	<i>Ploceus intermedius</i>	
Weaver, Village	<i>Ploceus cucullatus</i>	
Weaver, Cape	<i>Ploceus capensis</i>	
Weaver, Yellow	<i>Ploceus subaureus</i>	
Weaver, Southern Brown-throated	<i>Ploceus xanthopterus</i>	
Masked-weaver, Southern	<i>Ploceus velatus</i>	
Weaver, Thick-billed	<i>Amblyospiza albifrons</i>	
Quelea, Red-billed	<i>Quelea quelea</i>	
Quelea, Red-headed	<i>Quelea erythrops</i>	
Bishop, Southern Red	<i>Euplectes orix</i>	
Widowbird, Red-collared	<i>Euplectes ardens</i>	
Widowbird, White-winged	<i>Euplectes albonotatus</i>	
Widowbird, Fan-tailed	<i>Euplectes axillaris</i>	
Mannikin, Bronze	<i>Spermestes cucullatus</i>	
Mannikin, Red-backed	<i>Spermestes bicolor</i>	
Twinspot, Green	<i>Mandingoa nitidula</i>	
Firefinch, African	<i>Lagonosticta rubricata</i>	
Firefinch, Red-billed	<i>Lagonosticta senegala</i>	
Waxbill, Orange-breasted	<i>Amandava subflava</i>	
Waxbill, Blue	<i>Uraeginthus angolensis</i>	
Waxbill, Grey	<i>Estrilda perreini</i>	
Waxbill, Common	<i>Estrilda astrild</i>	
Whydah, Pin-tailed	<i>Vidua macroura</i>	
Indigobird, Dusky	<i>Vidua funerea</i>	
Indigobird, Village	<i>Vidua chalybeata</i>	
Canary, Cape	<i>Serinus canicollis</i>	
Canary, Yellow-fronted	<i>Crithagra mozambicus</i>	
Canary, Brimstone	<i>Crithagra sulphuratus</i>	
Bunting, Cinnamon-breasted	<i>Emberiza tahapisi</i>	
Bunting, Golden-breasted	<i>Emberiza flaviventris</i>	
Tern, Black	<i>Chlidonias niger</i>	

Common name	Scientific Name	Conservation Status
Gull, Franklin's	<i>Larus pipixcan</i>	
Dove, Rock	<i>Columba livia</i>	
Crow, House	<i>Corvus splendens</i>	
Duck, Mallard	<i>Anas platyrhynchos</i>	
White-eye, Cape	<i>Zosterops virens</i>	
Turaco, Livingstone's	<i>Tauraco livingstonii</i>	
Coucal, Burchell's	<i>Centropus burchellii</i>	
Cisticola, Rufous-winged	<i>Cisticola galactotes</i>	
Sparrow, Southern Grey-headed	<i>Passer diffusus</i>	

Ten reptile species of conservation importance have been recorded within the Richards Bay region and may potentially occur in the study area. These are listed in **Table 3** below.

**Table 3. Reptile species recorded in the Richards Bay area**

Common Name	Scientific Name	Conservation Status
Gaboon Adder	<i>Bitis gabonica</i>	-
Setaro's Dwarf Chameleon	<i>Bradypodion setaroi</i>	Least Concern
Nile Crocodile	<i>Crocodylus niloticus</i>	Least Concern
Green Mamba	<i>Dendroaspis angusticeps</i>	-
Natal Hinge-backed Tortoise	<i>Kinixys natalensis</i>	Near threatened
Forest Thread Snake	<i>Leptotyphlops sylvicolus</i>	-
Pygmy wolf snake	<i>Lycophidion pygmaeum</i>	-
Southern African Python	<i>Python natalensis</i>	-
Eastern Long-tailed Seps	<i>Tetradactylus africanus</i>	Least Concern

Six amphibians of conservation concern may occur in the area, and these are listed below in

**Table 4.**

**Table 4. Amphibian species recorded in the Richards Bay area**

Common Name	Scientific Name	Conservation Status
Natal leaf-folding frog	<i>Afrixalus spinifrons</i>	Near Threatened
Whistling rain frog	<i>Breviceps sopranus</i>	-
KwaZulu caco	<i>Cacosternum sp. B</i>	-
Striped caco	<i>Cacosternum striatum</i>	-
Spotted shovel-nosed frog	<i>Hemisus guttatus</i>	Vulnerable
Pickersgill's reed frog	<i>Hyperolius pickersgilli</i>	Critically Endangered

Due to the degraded nature of the sites, and the high interference by humans across the site the likelihood of large mammal species occurring on site are low, and they are probably locally extinct. A number of smaller species that may occur on site are listed in **Table 5** below.



Table 5. Mammal species recorded in the Richards Bay area that may occur on site.

Common Name	Scientific Name	Conservation Status
Rough-haired golden mole	<i>Chrysospalax villosus</i>	Vulnerable
Slater's tiny mouse shrew	<i>Myosorex sclateri</i>	Near Threatened
White-tailed mouse	<i>Mystromys albicaudatus</i>	Endangered

### 3.2 Site Assessment

The assessment of fauna within the study area was undertaken over a number of days, and involved days of fieldwork, as well as night time surveys of the area's most likely to harbour the nocturnal species noted above. In addition, active searches were undertaken for a number of species, specifically the invertebrates such as the snails, millipedes and any other species of conservation significance.

## 4 GENERAL STUDY AREA

As previously mentioned, the study area is approximately 247 ha in size and includes large areas of wetland and mangrove. The area has been extensively degraded through the dumping of litter and the use of the area for recreational pursuits such as fishing.

## 5 FAUNA ON SITE

### 5.1 Predicted Important Species by Ezemvelo KZN Wildlife

Ezemvelo KZN Wildlife's C-Plan database predicts that the following species of conservation significance may occur on the site, and that the site is wholly transformed.

- *Teriomima zuluana* (Zulu Buff) – This species requires Coastal forest, and this is not present on the site, and is therefore unlikely to occur.
- *Whitea coniceps* (Grasshopper) – This species is unlikely to occur on site due to the lack of grassland habitat that this species requires.
- *Parepistaurus eburlineatus* (Grasshopper) – This species is unlikely to occur on site due to the lack of grassland habitat that this species requires.
- *Orthoporoides corrugatus* (Millipede) – This species may occur on site, but no millipede species were noted during the field survey.

- *Centrobolus fulgidus* (Millipede) – This species may occur on site, but no millipede species were noted during the field survey.
- *Gulella zuluensis* (Mollusc) – This species was not recorded on site, and is not likely to occur due to its requirement for forest habitat.

After having undertaken a site visit, and having undertaken focused active searches for the species listed above, it is concluded that the species listed above do not occur within the majority of the proposed study site. This is due to the degradation that has been imparted on the site. The prevalence of feral cats within the area also makes it unlikely that even small mammals, are unlikely to be inhabiting the remaining vestiges of natural vegetation on site. In conclusion, no species of conservation significance was observed during the fieldwork undertaken.

## 5.2 Threatened Birds

**Table 2** lists all the birds that have been recorded in the study area. While many of these bird species are listed as near threatened, vulnerable or endangered, only a few of these conservation significant species are likely to make use of the study area. The various stork species (Black Stork - *Ciconia nigra*, Woolly-necked Stork – *Ciconia episcopus*, African Openbill – *Anastomas lemeligerus*, Saddle-billed Stork – *Ephippiorhynchus senegalensis*, and the Yellow-billed Stork – *Mycteria ibis*) could make use of the various vegetation units associated with open wetland areas, and large freshwater bodies. The various eagle species (specifically the African Fish-Eagle - *Haliaeetus vocifer*) are also likely to hunt over the site. Various other species may make use of the waterbodies and wetlands on the site, such as the African Marsh Harrier – *Circus ranivorus*, the Greater Painted Snipe – *Rostratula benghalensis*, White-faced Duck – *Dendrocygna viduata*, African Pygmy Goose – *Nettapus auritus*, African Finffot – *Podica senegalensis*, Lesser Jacana – *Microparra capensis*, and the Greater and Lesser Flamingos (see **Figure 2** below). In addition, the presence of the mangrove ecosystem means the Mangrove Kingfisher – *Halcyon senegaloides* may make use of this area, and has been recorded with the Richards Bay Harbour Area. In addition, the Half-collared Kingfisher – *Alcedo semitorquata* may also occur on the site.



Figure 2: Greater Flamingo feeding in the shallows adjacent to the shore of the study site.

### 5.3 Mammals

Two mammal species were recorded during the field survey. The mammals recorded are common species that occur in a wide range of habitats. None are listed as Red Data/protected species. The species recorded include the Natal multimammate mouse (*Mastomys natalensis*), and the Single-striped mouse (*Lemniscomys rosalia*).

The only large mammal seen on site were Vervet Monkeys (*Cercopithecus pygerythrus*) which are a cosmopolitan species that thrive when living in close proximity to humans, as long as they are not hunted or persecuted.

### 5.4 Reptiles

A number of reptiles were noted during the field survey, however, none of these species are considered rare. All species noted have wide distributions, and wide habitat preferences. The species noted included the Ornate Sandveld Lizard (*Nucras ornata*), and the Flap-neck Chameleon (*Chamaeleo dilepsis*).

## **5.5 Amphibians**

Four amphibian species were recorded in or adjacent to the study area. These are the Common river frog (*Amieta angolensis*), Tinker reed frog (*Hypercolius tuberilinguis*), Guttural toad (*Amietophrynus gutturalis*) and Argus reed frog (*Hyperolius argus*). None of the recorded species are restricted in terms of habitat and distribution, or classified as Red Data species. The number of calling frogs was generally very low, and may relate to the drier than normal conditions associated with the current drought.

## **6 RECOMMENDATIONS**

From a faunal perspective, the study area has low conservation value. The fauna of the site is directly dependent on the wetland and vegetation units of the site, and the careful management of these wetlands and vegetation units will benefit the fauna of the area. Therefore, the following is recommended:

- ✓ Alien plant clearing must be undertaken within the entire study area;
- ✓ Community outreach regarding poaching of fauna should be undertaken;
- ✓ Rehabilitation of both wetland, and vegetation communities would improve faunal diversity across the site.

## **7 CONCLUSIONS**

The majority of the study site is degraded and conservation efforts should be initiated to remove alien plants from the system to allow faunal species diversity to improve within the area.

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