

Location of Majuba Mistbelt Forest and Moist Grassland showing original area of ecosystem

184. Maputaland Wooded Grassland (CB 2)

Reference number CB 2

Listed under Criterion A1

Biome Indian Ocean Coastal Belt

Province KwaZulu-Natal

Municipalities Umhlabuyalingana LM, Mtubatuba LM,

Mbonambi LM, uMhlathuze LM and

KZNDMA27

Original area of ecosystem 99 000 ha

Remaining natural area of ecosystem (%) 53%

Proportion of ecosystem protected 17% of original area

Known number of species of special concern 5 endemic plant species

Geographical location

In South Africa from the Mozambique border near KwaNgwanase southwards to Sileza, Sibaya, Mseleni, Mbaz-wana, Sodwana Bay, Ozabeni, eastern and western shores of Lake St Lucia, KwaMbonambi and as far south as near Richards Bay.

Description

Generally flat landscape of the Maputaland coastal plain supporting coastal sandy grasslands rich in geoxylic suffrutices, dwarf shrubs, small trees and very rich herbaceous flora. Excluded from the ecosystem are the many interdune depression wetlands and hygrophilous grasslands neighbouring the wooded grasslands. At least five endemic plant species occur in the ecosystem.

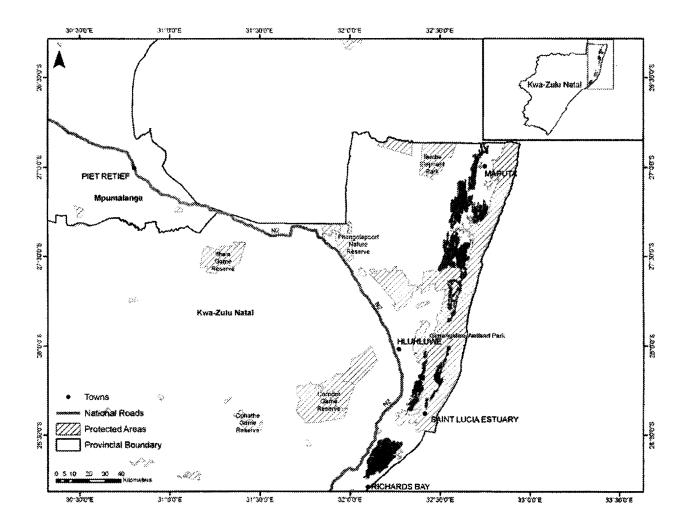
Other information

Approximately 17% of the ecosystem is protected mainly in the isiMangaliso Wetland Park.

Reference

Mucina, L., Scott-Shaw, R., Rutherford, M.C., Camp, K.G.T., Matthews, W.S., Powrie, L.W. & Hoare, D.B. 2006. Indian Ocean Coastal Belt. In: L. Mucina & M.C. Rutherford (eds). The

Vegetation of South Africa, Lesotho and Swaziland. *Strelitzia* **19**: 577-578. South African National Biodiversity Institute, Pretoria.



Location of Maputaland Wooded Grassland showing original area of ecosystem

185. Marikana Thornveld (SVcb 6)

Reference number SVcb 6

Listed under Criterion A1

Biome Savanna

Provinces North West and Gauteng

Municipalities Nokeng tsa Taemane LM, Kungwini LM,

Local Municipality of Madibeng, Rustenburg

LM and City of Tshwane MM

Original area of ecosystem 253 000 ha

Remaining natural area of ecosystem (%) 55%

Proportion of ecosystem protected 0% of original area

Known number of species of special concern

Geographical location

Occurs on plains from the Rustenburg area in the west, through Marikana and Brits to the Pretoria area in the east.

Description

Open Acacia karroo woodland, occurring in valleys and slightly undulating plains, and some lowland hills. Shrubs are more dense along drainage lines, on termitaria and rocky outcrops or in other habitat protected from fire.

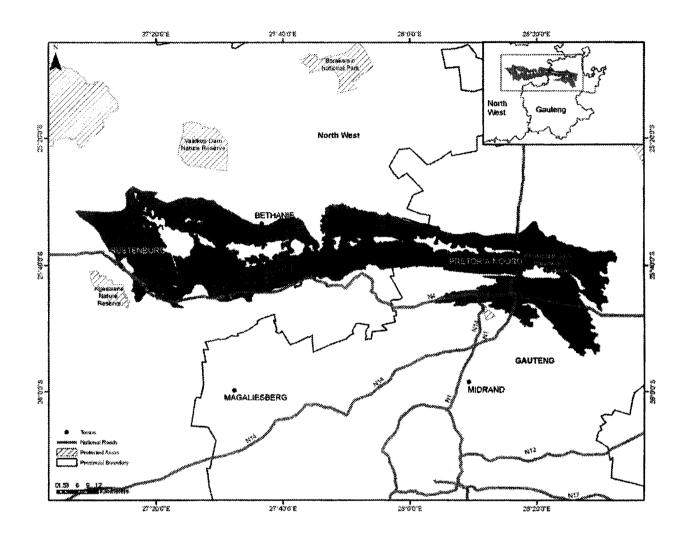
Other Information

The ecosystem is found in, for example, Magaliesberg Nature Area and in other reserves, mainly in De Onderstepoort Nature Reserve.

Reference

Rutherford, M.C., Mucina, L., Lotter, M.C., Bredenkamp, G.J., Smit, J.H.L., Scott-Shaw, R., Hoare, D.B., Goodman, P.S., Bezuidenhout, H., Scott, L., Ellis, F., Powrie, L.W., Siebert, F., Mostert, T.H., Henning, B.J., Venter, C.E., Camp, K.G.T., Siebert, S.J., Matthews, W.S., Burrows, J.E., Dobson, L., van Rooyen, N., Schmidt, E., Winter, P.J.D., du Preez, P.J., Ward,

R.A., Williamson, S. & Hurter, P.J.H. 2006. Savanna Biome. In: L. Mucina & M.C. Rutherford (eds). The Vegetation of South Africa, Lesotho and Swaziland. *Strelitzia* **19**: 463-464. South African National Biodiversity Institute, Pretoria.



Location of Marikana Thornveld showing original area of ecosystem

186. Marwaqa (KZN 67)

Reference number KZN 67

Listed under Criterion F

Biome Grassland and Forest

Province KwaZulu-Natal

Municipalities Ingwe LM and Kwa Sani LM

Original area of ecosystem 4 000 ha

Remaining natural area of ecosystem (%) 99%

Proportion of ecosystem protected 0% of original area

Known number of species of special concern 6 threatened or endemic plant and animal

species including those listed below

Geographical location

Himeville (2929DA). Ecosystem includes lowlands and wetlands associated with crane nesting sites. Ecosystem delineated by topography and refined by excluding peripheral plantations and urban settlements. It includes cultivated fields, which are important habitat for crane foraging, and manmade impoundments, which have associated wetlands important for flufftails.

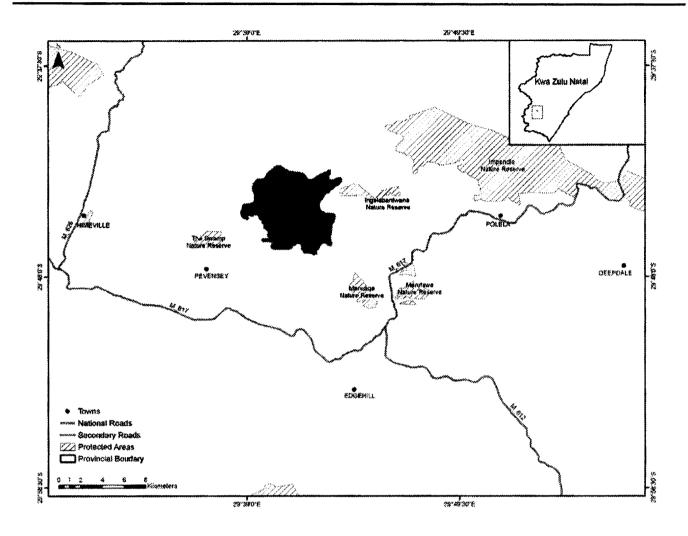
Description

Key biodiversity features include one bird species, the Wattled Crane; one mammal species, the Oribi; two millipede species including *Centrobolus tricolor*, *Doratogonus montanus*; two plant species for example *Kniphofia brachystachya*; one reptile species, *Bradypodion thamnobates*; and four vegetation types including Drakensberg Foothill Moist Grassland, Eastern Mistbelt Forest, Mooi River Highland Grassland and Southern KwaZulu-Natal Moist Grassland.

Other information

The ecosystem is not protected.

Reference



Location of Marwaqa showing original area of ecosystem

187. Michaelhouse Grasslands (KZN 68)

Reference number KZN 68

Listed under Criterion F

Biome Grassland and Forest

Province KwaZulu-Natal

Municipality uMngeni LM

Original area of ecosystem 13 000 ha

Remaining natural area of ecosystem (%) 18%

Proportion of ecosystem protected 0% of original area

Known number of species of special concern 13 threatened or endemic plant and animal

species including those listed below

Geographical location

Howick (2930AC). Ecosystem confined to the Midlands Mistbelt Grassland. Ecosystem delineated by the Fort Nottingham Lowland Grassland threatened ecosystem (KZN 52) in the west; by the Easingwold Grasslands threatened ecosystem (KZN 48) in the north; by the crest of the Dargle Ridge in the south; and by the contours defining the base of the hills upon which the N3 is situated in the east.

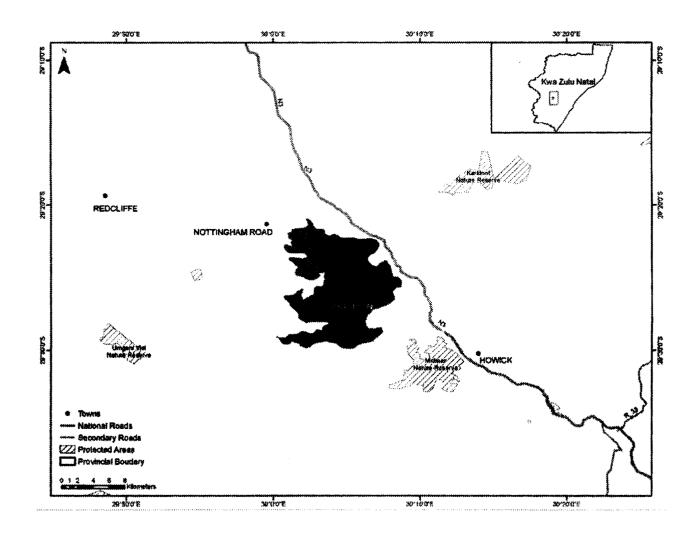
Description

Key biodiversity features include one amphibian species, *Afrixalus spinifrons intermedius*; one bird species, the Wattled Crane; five millipede species including *Centrobolus decoratus*, *Centrobolus tricolor*, *Doratogonus hoffmani*, *Doratogonus montanus* and *Doratogonus natalensis*; five plant species including *Geranium natalense*, *Kniphofia brachystachya*, *Kniphofia buchananii*, *Plectranthus rehmannii*, *Senecio exuberans*; one reptile species, *Bradypodion thamnobates*; and three vegetation types including Drakensberg Foothill Moist Grassland, Eastern Mistbelt Forest and Midlands Mistbelt Grassland.

Other information

The ecosystem is not protected.

Reference



Location of Michaelhouse Grasslands showing original area of ecosystem

188. Midiands Mistbelt Grassland (Gs 9)

Reference number Gs 9

Listed under Criterion A1

Biome Grassland

Provinces KwaZulu-Natal and Eastern Cape

Municipalities Mbizana LM, Ntabankulu LM, Qaukeni LM,

Port St Johns LM, Umzimvubu LM,

UMuziwabantu LM, uMshwathi LM, uMngeni LM, Mooi Mpofana LM, Impendle LM, The Msunduzi LM, Mkhambathini LM, Richmond LM, Nqutu LM, Msinga LM, Umvoti LM, Ulundi LM, Nkandla LM, Ndwedwe LM, Maphumulo

LM, Ingwe LM, Ubuhlebezwe LM and

Umzimkhulu LM

Original area of ecosystem 658 000 ha

Remaining natural area of ecosystem (%) 45%

Proportion of ecosystem protected < 1% of original area

Known number of species of special concern 9 endemic plant species

Geographical location

KwaZulu-Natal Midlands, scattered in a broad belt in the form of several major patches including Melmoth-Babanango area, Kranskop and Greytown, Howick Lions River, Karkloof, Balgowan, Cedara, Edendale, Hilton, Richmond, the Ixopo-Highflats area, Mount Malowe in the Umzimkhulu enclave of the Eastern Cape Province and the Harding-Weza area. The south western most section in the Eastern Cape Province falls in the Bulembu, Gxwaleni, Longweni and Flagstaff areas.

Description

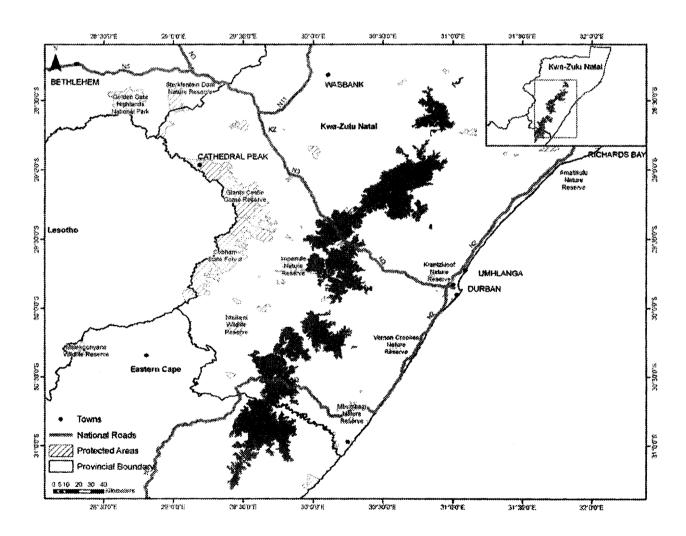
Hilly and rolling landscape mainly associated with a discontinuous east-facing scarp formed by dolerite intrusions (south of the Thukela River). Dominated by forb-rich, tall, sour *Themeda triandra* grasslands transformed by the invasion of native 'Ngongoni grass (*Aristida junciformis* subsp. *junciformis*). Only a few patches of the original species-rich grasslands remain.

Other information

Less than 1% is protected in Ngeli Nature Reserve, Impendie Nature Reserve, Blinkwater Nature Reserve, Qudeni Nature Reserve, Doreen Clark Nature Reserve, Karkloof Nature Reserve and Queen Elizabeth Park.

Reference

Mucina, L., Hoare, D.B., Lotter, M.C., du Preez, P.J., Rutherford, M.C., Scott-Shaw, R., Bredenkamp, G.J., Powrie, L.W., Scott, L., Camp, K.G.T., Cilliers, S.S., Bezuidenhout, H., Mostert, T.H., Siebert, S.J., Winter, P.J.D., Burrows, J.E., Dobson, L., Ward, R.A., Stalmans, M., Oliver, E.G.H., Siebert, F., Schmidt, E., Kobisi, K., & Kose, L. 2006. Grassland Biome. In: L. Mucina & M.C. Rutherford (eds). The Vegetation of South Africa, Lesotho and Swaziland. *Strelitzia* 19: 422-423. South African National Biodiversity Institute, Pretoria.



Location of Midlands Mistbelt Grassland showing original area of ecosystem

189. Midmar Valley (KZN 69)

Reference number KZN 69

Listed under Criterion F

Biome Grassland

Province KwaZulu-Natal

Municipality uMngeni LM

Original area of ecosystem 14 000 ha

Remaining natural area of ecosystem (%) 27%

Proportion of ecosystem protected 20% of original area

Known number of species of special concern 13 threatened or endemic plant and animal

species including those listed below

Geographical location

Merrivale (2930CA) and Howick (2930AC). Ecosystem deliniated, in the south, by the ridge of the mountains to the south of the Midmar Valley; in the east by a minor ridge running down to the N3, along the ridge to Catoridge and up the opposing minor ridge; in the north by contours along the top of the ridge towards Lions River, down to the contour indicating the edge of the Midmar floodplain in the; and in the west along the floodplain contour and the Gqishi River, until meeting the southern boundary of the ecosystem and including the Mount Ashley Ridge.

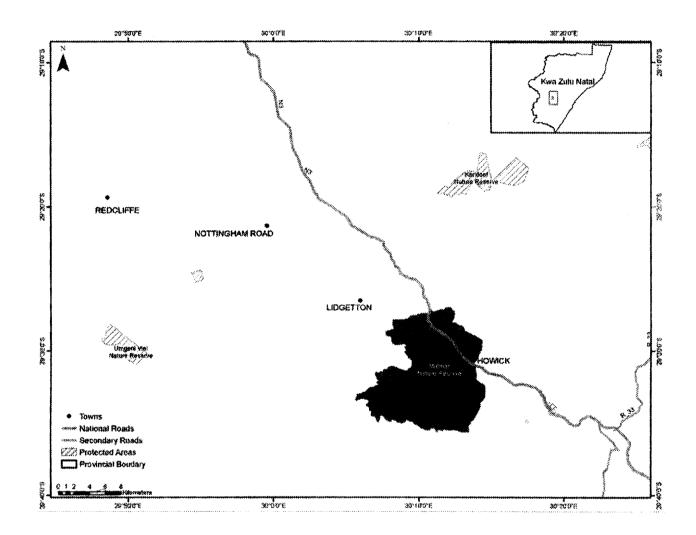
Description

Key biodiversity features include one bird species, the Wattled Crane; one mammal species, the Oribi; three millipede species including Centrobolus tricolor, Doratogonus cristulatus and Doratogonus montanus; five plant species including Dierama reynoldsii, Gerbera aurantiaca, Kniphofia buchananii, Plectranthus rehmannii and Senecio exuberans; three reptile species including Bradypodion bourquini, Bradypodion thamnobates and Scelotes bourquini; and two vegetation types including Midlands Mistbelt Grassland and Southern KwaZulu-Natal Moist Grassland.

Other information

About 20% of the ecosystem is protected in the Midmar Nature Reserve.

Reference



Location of Midmar Valley showing original area of ecosystem

190. Montagu Shale Renosterveld (FRs 7)

Reference number FRs 7

Listed under Criterion A1

Biome Fynbos

Province Western Cape

Municipalities Breede River/Winelands LM, Swellendam LM,

Kannaland LM, Hessegua LM, Oudtshoorn LM

and WCDMA02

Original area of ecosystem 164 000 ha

Remaining natural area of ecosystem (%) 57%

Proportion of ecosystem protected 2% of original area

Known number of species of special concern 14 Red Data plant species (EX, EW, CR, EN &

VU excl VU D2) and 18 endemic plant species

Geographical location

Patches in the western Little Karoo south of the Waboomberg and Warmwaterberg and south of the Anysberg and Klein Swartberg; along the northern foothills of the Langeberg and the southern foothills of the Anysberg, Klein Swartberg, Rooiberg and Gamkaberg; from The Koo in the west to Calitzdorp and Cloete's Pass in the east. The largest patch occurs between Montagu and Barrydale.

Description

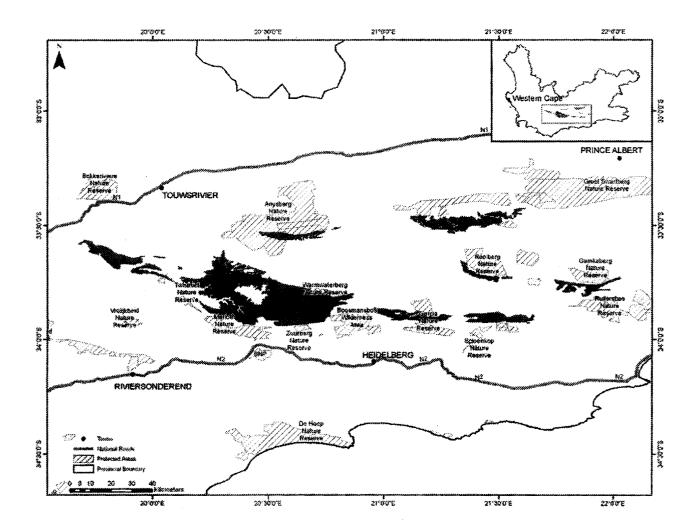
Undulating hilly landscape with broad valleys supporting open, tall shrubland in a medium dense matrix of short, divaricate shrubs, dominated by renosterbos. Transitions with Succulent Karoo ecosystems can be observed at lower altitudes. At least 18 endemic plant species and 14 Red Data List plant species occur in the ecosystem.

Other information

Approximately 2% of the ecosystem is protected in the Anysberg Nature Reserve, and an additional 4% found in private reserves such as Botterboom, Kanaland and Doornkloof.

Reference

Rebelo, A.G., Boucher, C., Helme, N., Mucina, L., & Rutherford, M.C. *et al.* 2006. Fynbos Biome. In: L. Mucina & M.C. Rutherford (eds). The Vegetation of South Africa, Lesotho and Swaziland. *Strelitzia* **19**: 180. South African National Biodiversity Institute, Pretoria.



Location of Montagu Shale Renosterveld showing original area of ecosystem

191. Mount Gilboa Plateau (KZN 70)

Reference number KZN 70

Listed under Criterion F

Biome Grassland and Forest

Province KwaZulu-Natal

Municipalities uMshwathi LM, uMngeni LM and Mooi

Mpofana LM

Original area of ecosystem 11 000 ha

Remaining natural area of ecosystem (%) 44%

Proportion of ecosystem protected 9% of original area

Known number of species of special concern 7 threatened or endemic plant and animal

species including those listed below

Geographical location

Howick (2930AC), Albert Falls (2930AD) and Mount Alida (2930AB). Ecosystem almost exclusively contained within the Drakensberg Foothill Moist Grassland and represents the eastern most extension of this grassland ecosystem within KwaZulu-Natal. Ecosystem delineated based on a combination of the Drakensberg Foothill Moist Grassland ecosystem boundary and contours of the slopes crest. In the south and east delineated by steep southward facing slopes and in the north by steep slopes leading into either Mooi River Highland Grassland and/or KwaZulu-Natal Highland Thornveld. In the west delineated by a small ridge.

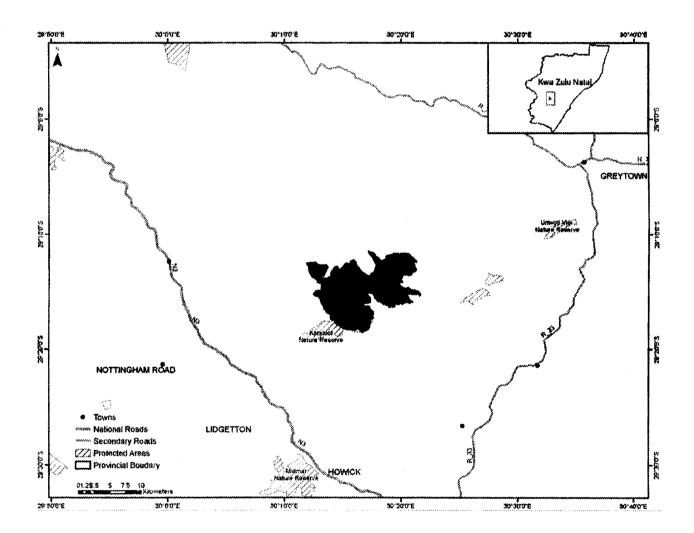
Description

Key biodiversity features include one amphibian species, *Afrixalus spinifrons intermedius*; two bird species including Wattled Crane and White-winged Flufftail; one mammal species, the Oribi; two millipede species including *Centrobolus tricolor* and *Doratogonus montanus*; one plant species, *Kniphofia brachystachya*; and five vegetation types including Drakensberg Foothill Moist Grassland, Eastern Mistbelt Forest, KwaZulu-Natal Highland Thornveld, Midlands Mistbelt Grassland and Mooi River Highland Grassland.

Other Information

About 9% of the ecosystem is protected in the Karkloof Nature Reserve.

Reference



Location of Mount Gilboa Plateau showing original area of ecosystem

192. Mount MacDonald Ridge and Wetlands (KZN 71)

Reference number KZN 71

Listed under Criterion F

Biome Grassland

Province KwaZulu-Natal

Municipality Greater Kokstad LM

Original area of ecosystem 11 000 ha

Remaining natural area of ecosystem (%) 70%

Proportion of ecosystem protected 0% of original area

Known number of species of special concern 8 threatened or endemic plant and animal

species including those listed below

Geographical location

Swartberg (3029AB). Ecosystem includes lowlands and wetlands associated with crane nesting sites. Ecosystem defined using topography and includes rocky areas along streams and valleys with woody patches of *Hesperantha woodii*. It extends in the south to include Fearnely National Heritage Site, incorporating a wetland.

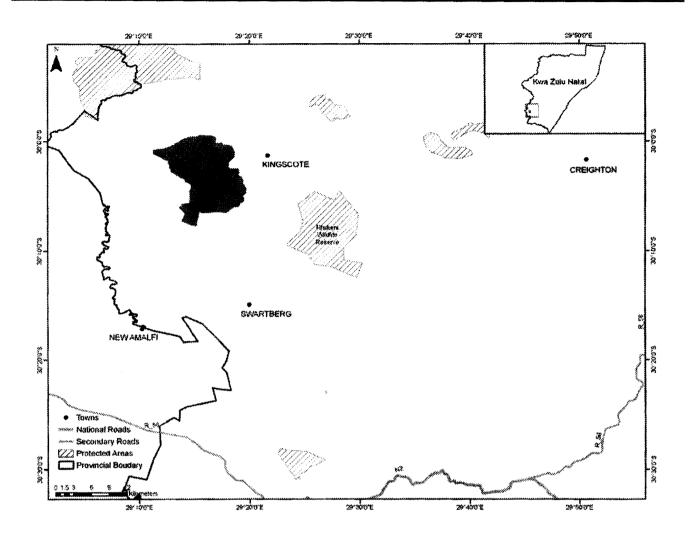
Description

Key biodiversity features include two bird species including Wattled Crane and White-winged Flufftail; two millipedes including *Centrobolus tricolor* and *Doratogonus montanus*; four plant species including *Dierama tysonii*, *Hesperantha woodii*, *Kniphofia brachystachya* and *Kniphofia breviflora*; and three vegetation types including Drakensberg Foothill Moist Grassland, East Griqualand Grassland and Southern Drakensberg Highland Grassland.

Other information

The ecosystem is not protected.

Reference



Location of Mount MacDonald Ridge and Wetlands showing original area of ecosystem

193. Mthatha Moist Grassland (Gs 14)

Reference number Gs 14

Listed under Criterion A1

Biome Grassland

Province Eastern Cape

Municipalities Mbhashe LM, Mnquma LM, Intsika Yethu LM,

Engcobo LM, Sakhisizwe LM, Elundini LM, Nyandeni LM, Mhlontlo LM and King Sabata

Dalindyebo LM

Original area of ecosystem 528 000 ha

Remaining natural area of ecosystem (%) 53%

Proportion of ecosystem protected < 1% of original area

Known number of species of special concern

Geographical location

Plains between Mthatha and Butterworth parallel to the coastline and excluding the river valleys that intrude landwards into the ecosystem.

Description

Undulating plains and hills supporting species-poor, sour, wiry grassland with *Eragrostis plana* and *Sporobolus africanus*, although in good condition it is more likely to be dominated by *Themeda triandra*.

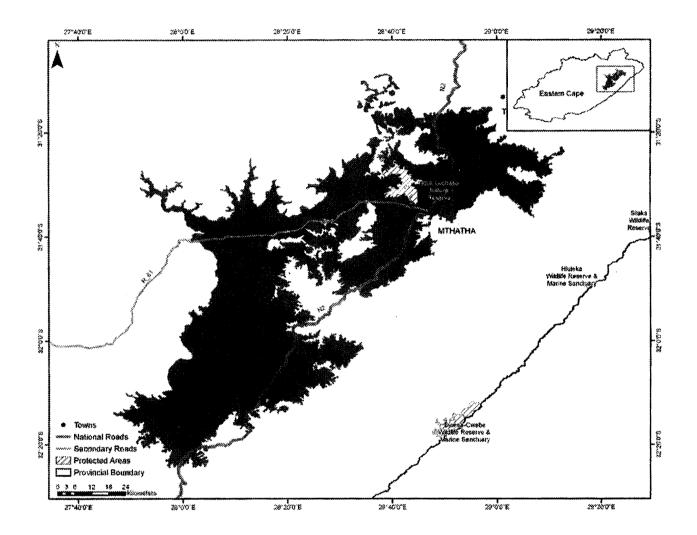
Other information

Only a small fraction is protected in the Luchaba and Nduli Wildlife Reserves.

Reference

Mucina, L., Hoare, D.B., Lotter, M.C., du Preez, P.J., Rutherford, M.C., Scott-Shaw, R., Bredenkamp, G.J., Powrie, L.W., Scott, L., Camp, K.G.T., Cilliers, S.S., Bezuidenhout, H., Mostert, T.H., Siebert, S.J., Winter, P.J.D., Burrows, J.E., Dobson, L., Ward, R.A., Stalmans, M., Oliver, E.G.H., Siebert, F., Schmidt, E., Kobisi, K., & Kose, L. 2006. Grassland Biome. In: L.

Mucina & M.C. Rutherford (eds). The Vegetation of South Africa, Lesotho and Swaziland. Strelitzia 19: 426-427. South African National Biodiversity Institute, Pretoria.



Location of Mthatha Moist Grassland showing original area of ecosystem

194. Namib Seashore Vegetation (AZd 1)

Reference number Azd 1

Listed under criteria A1

Biome Azonal

Province Northern Cape

Municipality Richtersveld LM

Original area of ecosystem 1 000 ha

Remaining natural area of ecosystem (%) 60%

Proportion of ecosystem protected 0% of original area

Known number of species of special concern

Geographical location

Richtersveld coast, between the Holgat River and Orange River mouth. The larger portion of this ecosystem extends further north along the Sperrgebiet coast into Namibia.

Description

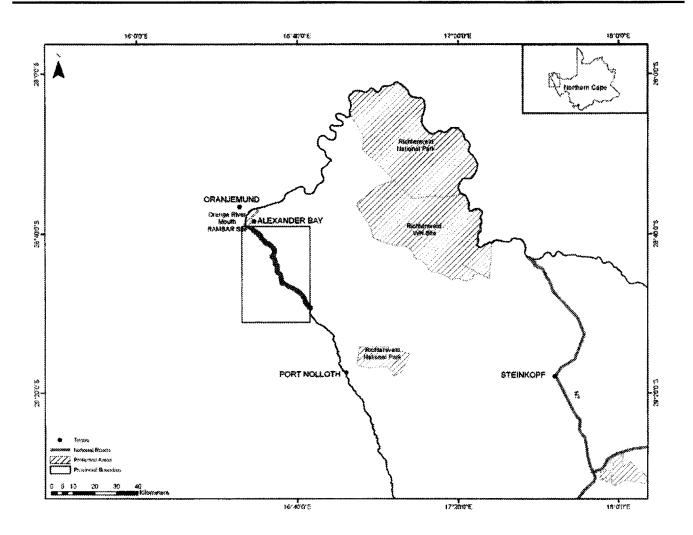
Slightly sloping beach and adjacent moving and fixed sand dunes with vegetation dominated by dwarf shrubs up to 1 m tall and spiny grasses on the windblown dunes. Small succulent dwarf shrubs are dominant on exposed rocky cliffs on the seafront.

Other information

The ecosystem is not protected, but some areas are off limits to the public due to coastal diamond mining.

Reference

Mucina, L., Rutherford, M.C., Powrie, L.W., Gerber, J., Bezuidenhout, H., Sieben, E.J.J., Cilliers, S.S., Du Preez, P.J., Manning, J.C., Hoare, D.B., Boucher, C., Rebelo, A.G., Bredenkamp, G.J., Siebert, F. 2006. Inland Azonal Vegetation. In: L. Mucina & M.C. Rutherford (eds). The Vegetation of South Africa, Lesotho and Swaziland. Strelitzia 19: 683-684. South African National Biodiversity Institute, Pretoria.



Location of Namib Seashore Vegetation showing original area of ecosystem (area of ecosystem enlarged for visibility at this scale)

195. New Amalfi Wetlands (KZN 72)

Reference number KZN 72

Listed under Criterion F

Biome Grassland

Province KwaZulu-Natal

Municipality Matatiele LM

Original area of ecosystem 7 000 ha

Remaining natural area of ecosystem (%) 81%

Proportion of ecosystem protected 0% of original area

Known number of species of special concern 4 threatened or endemic animal species

including those listed below

Geographical location

Cedarville (3029AC). Ecosystem includes lowlands and wetlands associated with crane nesting sites and the surrounding wetland features.

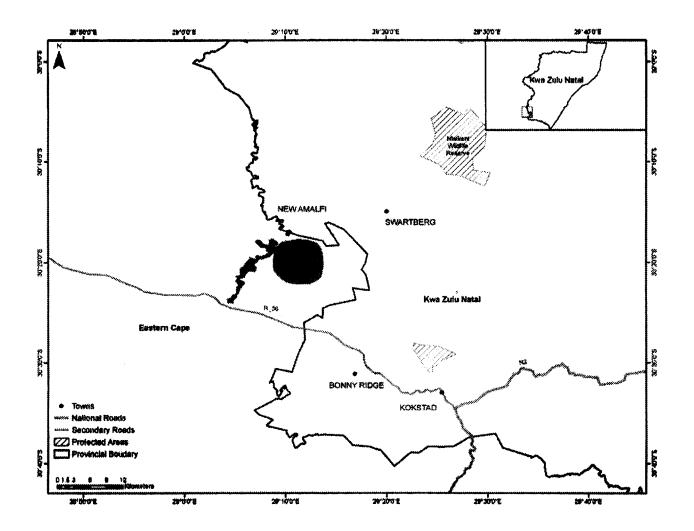
Description

Key biodiversity features include one amphibian species, *Leptopelis xenodactylus*; two bird species including Wattled Crane and White-winged Flufftail; one millipede species including *Centrobolus tricolor*; and two vegetation types including East Griqualand Grassland and Mabela Sandy Grassland.

Other information

The ecosystem is not protected.

Reference



Location of New Amaifi Wetlands showing original area of ecosystem

196. Ngongoni Veld (SVs 4)

Reference number SVs 4

Listed under Criterion A1

Biome Savanna

Provinces KwaZulu-Natal and Eastern Cape

Municipalities Mbizana LM, Ntabankulu LM, Qaukeni LM,

Port St Johns LM, Nyandeni LM, Mhlontlo LM, Ethekwini MM, Vulamehlo LM, Umzumbe LM, UMuziwabantu LM, Ezingoleni LM, Hibiscus Coast LM, uMshwathi LM, uMngeni LM, The Msunduzi LM, Mkhambathini LM, Richmond LM, Umvoti LM, Ulundi LM, Ntambanana LM, uMlalazi LM, Mthonjaneni LM, Nkandla LM,

Ndwedwe LM, Maphumulo LM, Ubuhlebezwe

LM and Umzimkhulu LM

Original area of ecosystem 1 005 000 ha

Remaining natural area of ecosystem (%) 61%

Proportion of ecosystem protected < 1% of original area

Known number of species of special concern

Geographical location

From Melmoth in the north to near Libode in the former Transkei including Eshowe, New Hanover, Camperdown, Eston, Richmond, Dumisa, Harding, Lusikisiki and the Libode area.

Description

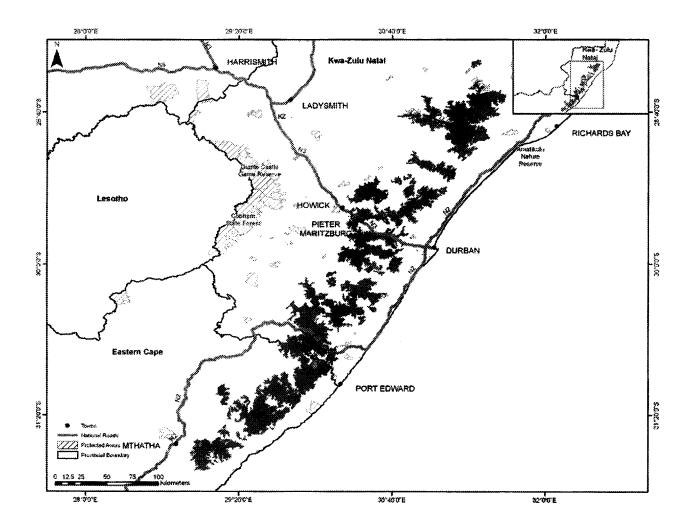
Dense, tall grassland overwhelmingly dominated by unpalatable, wiry Ngongoni grass (*Aristida junciformis*), with this monodominance associated with low species diversity. Wooded areas (thornveld) are found in valleys at lower altitudes, where this ecosystem grades into KwaZulu-Natal Hinterland Thornveld and Bhisho Thornveld. Termitaria support bush clumps with, for example, *Acacia* species, *Cussonia spicata*, *Ziziphus mucronata*, *Coddia rudis* and *Ehretia rigida*.

Other information

Less than 1% of the ecosystem is protected in the Ophathe and Vernon Crookes Nature Reserves.

Reference

Rutherford, M.C., Mucina, L., Lotter, M.C., Bredenkamp, G.J., Smit, J.H.L., Scott-Shaw, R., Hoare, D.B., Goodman, P.S., Bezuidenhout, H., Scott, L., Ellis, F., Powrie, L.W., Siebert, F., Mostert, T.H., Henning, B.J., Venter, C.E., Camp, K.G.T., Siebert, S.J., Matthews, W.S., Burrows, J.E., Dobson, L., van Rooyen, N., Schmidt, E., Winter, P.J.D., du Preez, P.J., Ward, R.A., Williamson, S. & Hurter, P.J.H. 2006. Savanna Biome. In: L. Mucina & M.C. Rutherford (eds). The Vegetation of South Africa, Lesotho and Swaziland. *Strelitzia* 19: 510-511. South African National Biodiversity Institute, Pretoria.



Location of Ngongoni Veld showing original area of ecosystem

197. Nieuwoudtville Shale Renosterveld (FRs 2)

Reference number FRs 2

Listed under Criterion A1

Biome Fynbos

Province Northern Cape

Municipality Hantam LM

Original area of ecosystem 16 000 ha

Remaining natural area of ecosystem (%) 58%

Proportion of ecosystem protected 0% of original area

Known number of species of special concern 17 endemic plant species

Geographical location

Bokkeveld Plateau at Nieuwoudtville extending in a 1–4 km wide strip 13 km south of Boererus on the Oorlogskloof River near Papkuilsfontein and almost 20 km north of Nieuwoudtville in the vicinity of Kleinplaas.

Description

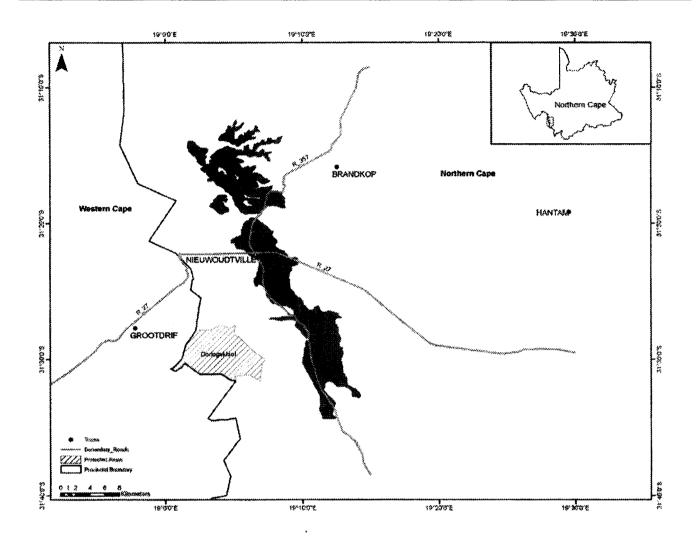
Flat tableland covered with uniformly structured low renosterveld shrubland with small, woody shrubs (0.5–1.6 m tall) and a variable grass layer. A diverse geophyte and annual community is prevalent in the wet season. Dominants are strongly related to soil, displaying large compositional turnover with soil texture, depth and aspect. The transition to fynbos in the west is abrupt and determined by sandstone geology. Progressively increasing aridity results in a more gradual transition to Hantam Karoo in the east. At least 17 endemic plant species occur in the ecosystem.

Other information

The ecosystem is not protected.

Reference

Rebelo, A.G., Boucher, C., Helme, N., Mucina, L., & Rutherford, M.C. *et al.* 2006. Fynbos Biome. In: L. Mucina & M.C. Rutherford (eds). The Vegetation of South Africa, Lesotho and Swaziland. *Strelitzia* 19: 176. South African National Biodiversity Institute, Pretoria.



Location of Nieuwoudtville Shale Renosterveld showing original area of ecosystem

198. Nkandla Forests and Grasslands (KZN 73)

Reference number KZN 73

Listed under Criterion F

Biome Grassland and Forest

Province KwaZulu-Natal

Municipality Nkandla LM

Original area of ecosystem 8 000 ha

Remaining natural area of ecosystem (%) 76%

Proportion of ecosystem protected 42% of original area

Known number of species of special concern 7 threatened or endemic plant and animal

species including those listed below

Geographical location

Nkandla (2831CA). Ecosystem incorporates the Nkandla Forest Reserve Complex (Nkandla Forest Reserve, Vungwini Nature Reserve, Mome Nature Reserve, Sibudeni Nature Reserve, Dhlabe Nature Reserve, Edodweni Nature Reserve and Mndunduzeli Nature Reserve). Ecosystem delineated in the north by the Thathe River, in the north east by the Mavungwini River and in the south by the Nsuze River.

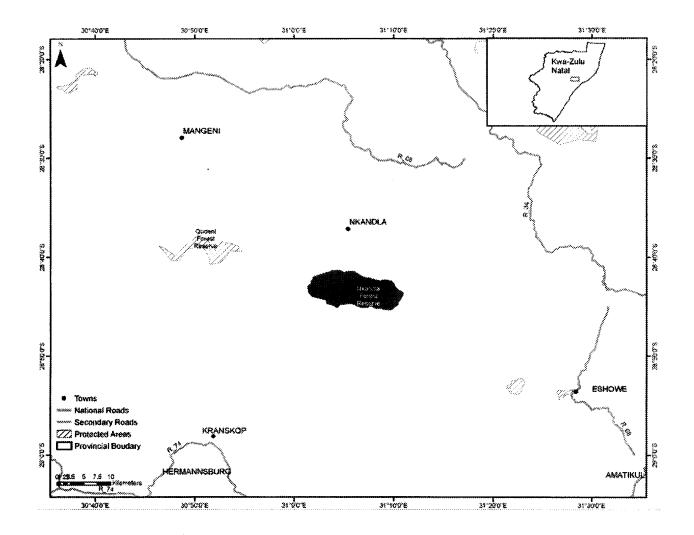
Description

Key biodiversity features include four millipede species including *Allawrencius nodulosus*, *Centrobolus bifidus*, *Centrobolus fulgidus*, and *Doratogonus peregrinus*; two plant species including *Aloe saundersiae* and *Kniphofia buchananii*; one reptile species, *Bradypodion nkandlae*; and three vegetation types including Eastern Scarp Forest, Midlands Mistbelt Grassland and Ngongoni Veld.

Other information

Approximately 42% of the ecosystem is protected in the Nkandla Forest Reserve, Vungwini Nature Reserve, Sibudeni Nature Reserve, Mome Nature Reserve, Dhlabe Nature Reserve, Edodweni Nature Reserve and Mndunduzeli Nature Reserve.

Reference



Location of Nkandla Forests and Grasslands showing original area of ecosystem

199. Nkunzi/Sundays River Grasslands (KZN 74)

Reference number KZN 74

Listed under Criterion F

Biome Grassland and Forest

Province KwaZulu-Natal

Municipalities Emnambithi-Ladysmith LM and Dannhauser

LM

Original area of ecosystem 26 000 ha

Remaining natural area of ecosystem (%) 77%

Proportion of ecosystem protected 0% of original area

Known number of species of special concern 5 threatened or endemic plant and animal

species including those listed below

Geographical location

Fort Mistake (2829BB) and Elandslaagte (2829BD). Ecosystem includes a system of grasslands and wetlands bounded by the Nkunzi River in the northeast and the Sundays River in the southwest. It incorporates the Sundays River wetlands, Bosberghoek Mountain, Slangberg Mountain and Snipe Marsh.

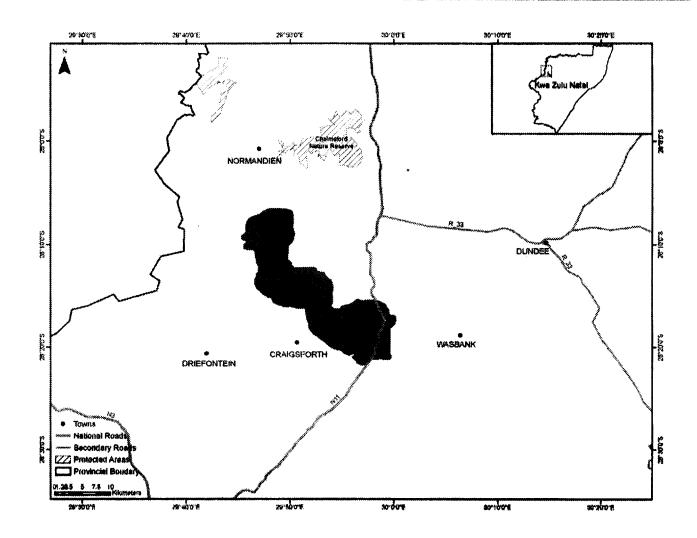
Description

Key biodiversity features include two bird species including the Wattled Crane and White-winged Flufftail; one mammal species, the Oribi; two plants species including *Kniphofia breviflora* and *Selago longicalyx*; and three vegetation types including Northern KwaZulu-Natal Moist Grassland, Low Escarpment Moist Grassland and Eastern Mistbelt Forest.

Other information

The ecosystem is not protected.

Reference



Location of Nkunzi/Sundays River Grasslands showing original area of ecosystem

200. Northern Escarpment Dolomite Grassland (Gm 22)

Reference number Gm 22

Listed under Criterion A1

Biome Grassland

Province Mpumalanga

Municipalities Greater Tubatse LM, Albert Luthuli LM,

Highlands LM, Thaba Chweu LM and

Mbombela LM

Original area of ecosystem 94 000 ha

Remaining natural area of ecosystem (%) 46%

Proportion of ecosystem protected 2% of original area

Known number of species of special concern 8 endemic plant species

Geographical location

From the high-lying dolomite grasslands of the Abel Erasmus Pass and Motlatse (Blyde) River (Vaalhoek) areas in the north, it extends southwards in a broad dolomite band along the Northern Escarpment, to as far south as the vicinity of Kaapsehoop.

Description

Very species-rich grasslands that occur along the Escarpment dolomite belt. The grasslands are characterised by a very diverse shrub layer which varies in height and density. The herbaceous component becomes more dense northwards as the climate becomes drier. At least eight endemic plant species occur in the ecosystem.

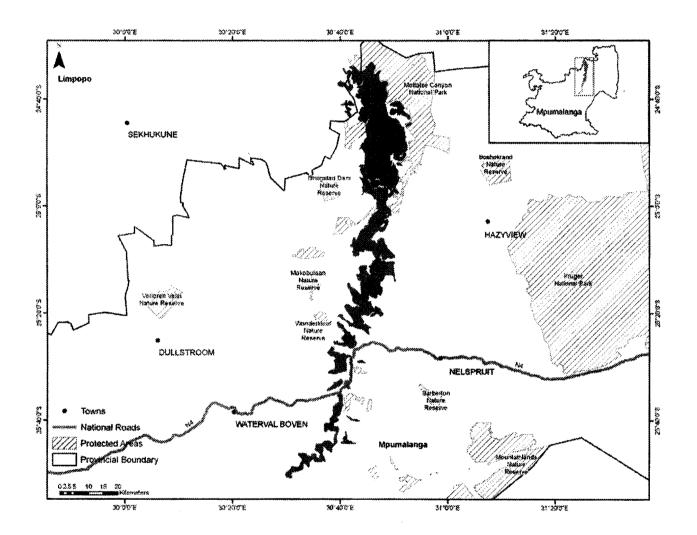
Other information

Approximately 2% of the ecosystem is protected within the Blyde River Canyon National Park. It is also found in the private Driekop Caves and London heritage sites in the north and in the Mooifontein and Mondi Cycad Reserve heritage sites in the south.

Reference

Mucina, L., Hoare, D.B., Lotter, M.C., du Preez, P.J., Rutherford, M.C., Scott-Shaw, R., Bredenkamp, G.J., Powrie, L.W., Scott, L., Camp, K.G.T., Cilliers, S.S., Bezuidenhout, H.,

Mostert, T.H., Siebert, S.J., Winter, P.J.D., Burrows, J.E., Dobson, L., Ward, R.A., Stalmans, M., Oliver, E.G.H., Siebert, F., Schmidt, E., Kobisi, K., & Kose, L. 2006. Grassland Biome. In: L. Mucina & M.C. Rutherford (eds). The Vegetation of South Africa, Lesotho and Swaziland. *Strelitzia* 19: 409-410. South African National Biodiversity Institute, Pretoria.



Location of Northern Escarpment Dolomite Grassland showing original area of ecosystem

201. Northern Qudeni Mistbelt Grasslands (KZN 75)

Reference number KZN 75

Listed under Criterion F

Biome Grassland

Province KwaZulu-Natai

Municipalities Nguthu LM and Nkandla LM

Original area of ecosystem 5 000 ha

Remaining natural area of ecosystem (%) 23%

Proportion of ecosystem protected 0% of original area

Known number of species of special concern 3 threatened or endemic plant and animal

species including those listed below

Geographical location

Qudeni (2830DB) and Fort Lois (2830BD). Ecosystem lies to the west of Madlozi Mountain and is delineated by the edge of the Midlands Mistbelt Grassland in the east.

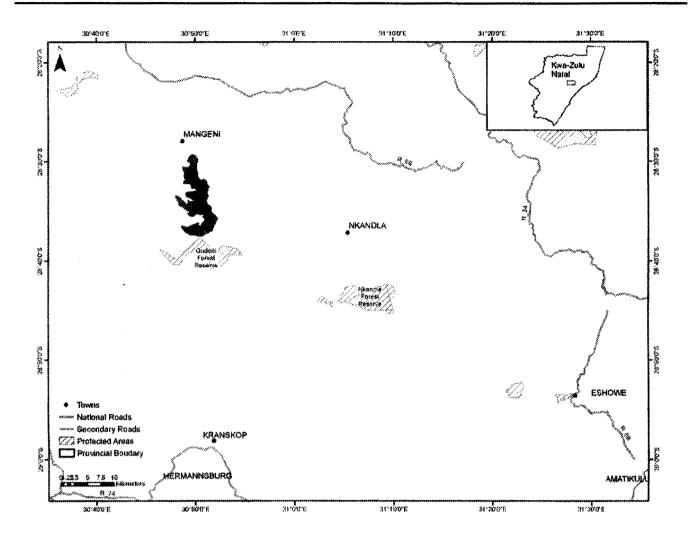
Description

Key biodiversity features include one millipede species, *Doratogonus natalensis*; one plant species, *Acalypha entumenica*; one reptile species *Bradypodion tilburyi*; and two vegetation types including Midlands Mistbelt Grassland and Northern KwaZulu-Natal Moist Grassland.

Other Information

The ecosystem is not protected.

Reference



Location of Northern Qudeni Mistbelt Grasslands showing original area of ecosystem

202. Ntsikeni Viei (KZN 76)

Reference number KZN 76

Listed under Criterion F

Biome Grassland and Forest

Province KwaZulu-Natal

Municipalities Greater Kokstad LM and Umzimkhulu LM

Original area of ecosystem 10 000 ha

Remaining natural area of ecosystem (%) 95%

Proportion of ecosystem protected 92% of original area

Known number of species of special concern 1 threatened animal species

Geographical location

Swartberg (3029AB). Ecosystem delineated by the boundary of the Ntsikeni Nature Reserve.

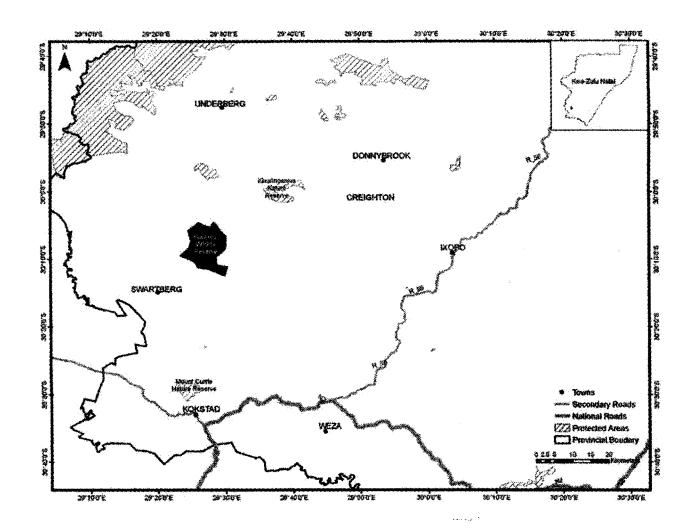
Description

Key biodiversity features include one bird species, the Wattled Crane; and two vegetation types including the Drakensberg Foothill Moist Grassland and Eastern Mistbelt Forest.

Other information

Approximately 92% of the ecosystem is protected by the Ntsikeni Nature Reserve.

Reference



Location of Ntsikeni Viei showing original area of ecosystem

203. Oakspring Valley (KZN 77)

Reference number KZN 77

Listed under Criterion F

Biome Grassland

Province KwaZulu-Natal

Municipalities uMngeni LM and Mooi Mpofana LM

Original area of ecosystem 2 000 ha

Remaining natural area of ecosystem (%) 46%

Proportion of ecosystem protected 0% of original area

Known number of species of special concern 6 threatened or endemic plant and animal

species including those listed below

Geographical location

Weston (2930AA). Ecosystem encompasses a single small watershed and is delineated by river channels to the north and west, and a small ridge in the east.

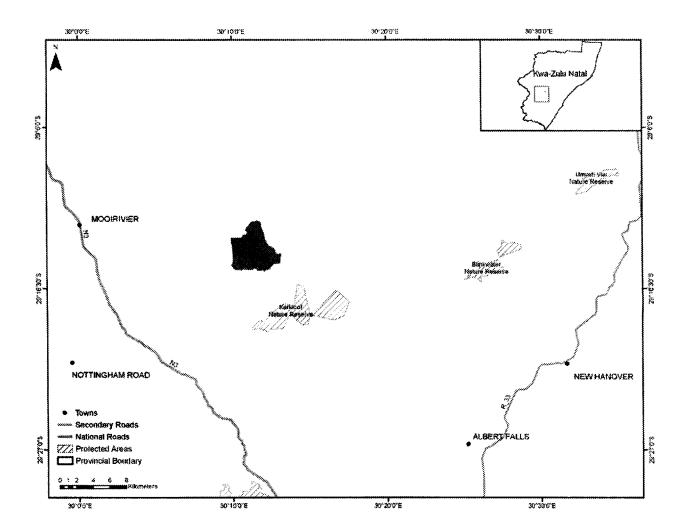
Description

Key biodiversity features include one amphibian species, *Afrixalus spinifrons intermedius*; one bird species, the Wattled Crane; one mammal species, the Oribi; two millipede species including *Centrobolus tricolor* and *Doratogonus montanus*; one plant species, *Kniphofia brachystachya*; and two vegetation types including Drakensberg Foothill Moist Grassland and Mooi River Highland Grassland.

Other information

The ecosystem is not protected.

Reference



Location of Oakspring Valley showing original area of ecosystem

204. Paulpietersburg Moist Grassland (Gm 15)

Reference number Gm 15

Listed under Criterion A1

Biome Grassland

Provinces KwaZulu-Natal and Mpumalanga

Municipalities Utrecht LM, eDumbe LM, Abaqulusi LM,

Mkhondo LM and Seme LM

Original area of ecosystem 333 000 ha

Remaining natural area of ecosystem (%) 58%

Proportion of ecosystem protected < 1% of original area

Known number of species of special concern 1 endemic plant species

Geographical location

Broad surrounds of Piet Retief, Paulpietersburg and Vryheid, extending westwards to east of Wakkerstroom. The ecosystem occurs in the uppermost catchments of the Phongolo River.

Description

Mainly undulating with moderately steep slopes, but valley basins are wide and flat and mountainous areas occur mostly along the northern and eastern boundary. Tall closed grassland rich in forbs and dominated by *Tristachya leucothrix*, *Themeda triandra* and *Hyparrhenia hirta*. Evergreen woody vegetation is characteristic on rocky outcrops. At least one endemic plant species occurs in the ecosystem.

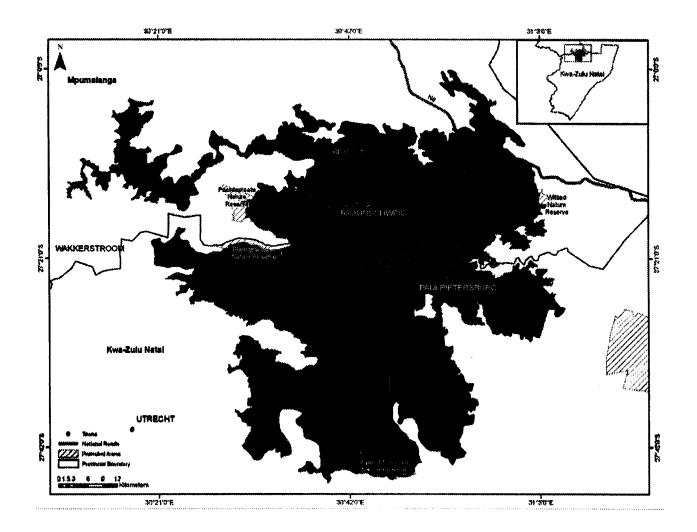
Other information

Only a very small portion of the ecosystem is protected in Witbad, Vryheid Mountain, Paardeplaats and Phongola Bush Nature Reserves. Small patches are also found in private reserves for example Rooikraal, Mhlongamvula and Kombewaria.

Reference

Mucina, L., Hoare, D.B., Lotter, M.C., du Preez, P.J., Rutherford, M.C., Scott-Shaw, R., Bredenkamp, G.J., Powrie, L.W., Scott, L., Camp, K.G.T., Cilliers, S.S., Bezuidenhout, H., Mostert, T.H., Siebert, S.J., Winter, P.J.D., Burrows, J.E., Dobson, L., Ward, R.A., Stalmans, M.,

Oliver, E.G.H., Siebert, F., Schmidt, E., Kobisi, K., & Kose, L. 2006. Grassland Biome. In: L. Mucina & M.C. Rutherford (eds). The Vegetation of South Africa, Lesotho and Swaziland. *Strelitzia* 19: 403. South African National Biodiversity Institute, Pretoria.



Location of Paulpietersburg Moist Grassland showing original area of ecosystem

205. Piketberg Quartz Succulent Shrubland (SKk 8)

Reference number SKk 8

Listed under Criterion C

Biome Succulent Karoo

Province Western Cape

Municipality Bergrivier LM

Original area of ecosystem 200 ha

Remaining natural area of ecosystem (%) 60%

Proportion of ecosystem protected 0% of original area

Known number of species of special concern 4 endemic plant species

Geographical location

Piketberg area, larger patch on the Farm Draaihoek between Piketberg and Eendekuil (at eastern foothills of the Piketberg Mountains), in the vicinity of Het Kruis and Redelingshuys (north of Piketberg Mountains) as well as near Sauer at the southwestern foot of the Piketberg Mountains.

Description

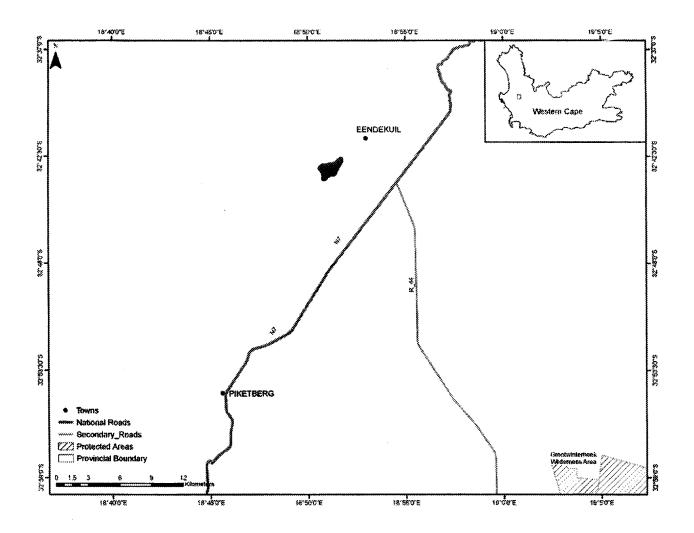
Low shrubland dominated by sturdy, succulent *Sarcocornia* from the *S. mossiana* complex, and accompanied by leaf-succulent, contracted vygies, especially in shallow trenches and depressions. Elevated sites (hummocks) with deeper soils support dense shrubland.

Other information

The ecosystem is not protected.

Reference

Mucina, L., Jürgens, N., le Roux, A., Rutherford, M.C., Schmiedel, U., Esler, K.J., Powrie, L.W., Desmet, P.G. & Milton, S.J. 2006. Succulent Karoo Biome. In: L. Mucina & M.C. Rutherford (eds). The Vegetation of South Africa, Lesotho and Swaziland. *Strelitzia* **19**: 276-277. South African National Biodiversity Institute, Pretoria.



Location of Piketberg Quartz Succulent Shrubland showing original area of ecosystem

206. Piketberg Sandstone Fynbos (FFs 6)

Reference number FFs 6

Listed under Criterion D1

Biome Fynbos

Province Western Cape

Municipality Bergrivier LM

Original area of ecosystem 46 000 ha

Remaining natural area of ecosystem (%) 87%

Proportion of ecosystem protected 0% of original area

Known number of species of special concern 41 Red Data plant species (EX, EW, CR, EN &

VU excl VU D2) and 39 endemic plant species

Geographical location

Mainly on the Piketberg Mountains in a triangle formed by Aurora, Het Kruis and the town of Piketberg but also on isolated hills to the north of the mountain including Driefonteinberg, Tiernesberg, Dassieberg and Klein Tafelberg.

Description

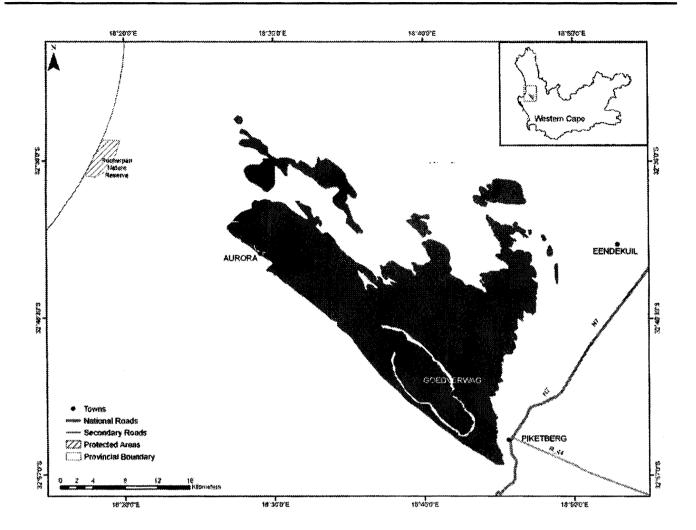
Large inselberg built of slowly eroding hard rocks towering over the surrounding sandy and shale plains of the West Coast. Mostly steep slopes, with some small plateaus and peaks. Vegetation is mainly closed restioland on deeper moister sands with low, sparse shrubs that become denser and the restios less pronounced in the drier habitats. Asteraceous and proteoid fynbos predominate in rocky areas, and Cape thicket is prominent as well. At least 39 endemic plant species and 41 Red Data List plant species occur in the ecosystem.

Other information

The ecosystem is not protected but 4% is found in private nature reserves.

Reference

Rebelo, A.G., Boucher, C., Helme, N., Mucina, L., & Rutherford, M.C. *et al.* 2006. Fynbos Biome. In: L. Mucina & M.C. Rutherford (eds). The Vegetation of South Africa, Lesotho and Swaziland. *Strelitzia* 19: 104-105. South African National Biodiversity Institute, Pretoria.



Location of Piketberg Sandstone Fynbos showing original area of ecosystem

207. Pondoland Scarp Forest (FOz V2)

Reference number FOz V2

Listed under Criterion A2

Biome Forest

Provinces Eastern Cape and KwaZulu-Natal

Municipalities Mbizana LM, Qaukeni LM, Umzumbe LM,

Ezingoleni LM and Hibiscus Coast LM

Original area of ecosystem Data not available

Remaining natural area of ecosystem 12 000 ha

Proportion of ecosystem protected 10% of remaining area

Known number of species of special concern 3 Red Data plant species (EX, EW, CR, EN &

VU excl VU D2)

Geographical location

Found on south-facing or east-facing slopes of the coastal scarp ridge, on sandstone outcrops (quartz arenites) in Pondoland in the north-eastern Transkei (Eastern Cape Province). Located from the complex of forests at, and immediately north of, Port St. Johns and reaching as far north as Oribi Gorge in southern KwaZulu-Natal.

Description

Tall (15-25 m) species-rich forests found on Msikaba Formation Sandstones of the coastal scarp ridge. Structurally diverse with open substrata and poorly developed herb layer. Wooded steep slopes of gorges are a characteristic of this forest ecosystem. The forest comprises three distinct strata, with a well developed seedling and sapling stratum and a poorly developed herb layer. Underneath the canopy the forest is relatively open and trees are mostly single stemmed. Pondoland Scarp forests are 'hotspots' of species richness and fall within the Pondoland Centre of Endemism. At least three Red Data List plant species occur in the ecosystem.

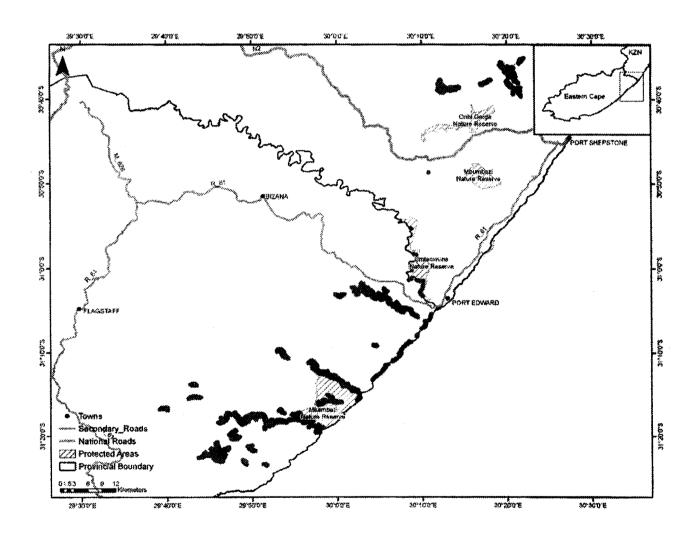
Other information

Approximately 10% of the ecosystem is protected. Pondoland Scarp Forest is generally less well conserved and managed than the Eastern Scarp Forest of KwaZulu-Natal and many large forests have already been destroyed.

References

Mucina, L. & Geldenhuys, C.J. 2006. Afrotemperate, Subtropical and Azonal Forests. In: L. Mucina & M.C. Rutherford (eds). The Vegetation of South Africa, Lesotho and Swaziland. *Strelitzia* **19**: 602-603. South African National Biodiversity Institute, Pretoria.

Von Maltitz, G., Mucina, L., Geldenhuys, C., Lawes, M., Eeley, H., Adie, H., Vink, D., Flemming, G. & Bailey, C. 2003. Classification System for South African Indigenous Forests. An objective classification for the Department of Water Affairs and Forestry. Environmentek Report ENV-P-C 2003-017, CSIR, Pretoria.



Location of Pondoland Scarp Forest (area of ecosystem enlarged for visibility at this scale)

208. Pudsey/Otterburn Wetlands (KZN 78)

Reference number KZN 78

Listed under Criterion F

Biome Grassland

Province KwaZulu-Natal

Municipalities Ingwe LM and Kwa Sani LM

Original area of ecosystem 5 000 ha

Remaining natural area of ecosystem (%) 27%

Proportion of ecosystem protected 0% of original area

Known number of species of special concern 5 threatened or endemic plant and animal

species including those listed below

Geographical location

Pevensey (2929DC). Ecosystem includes lowlands and wetlands associated with crane nesting sites. Ecosystem defined by topography and refined by excluding peripheral plantations and urban settlements. It includes cultivated fields, which are important habitat for crane foraging, and manmade impoundments which have associated wetlands important for flufftails.

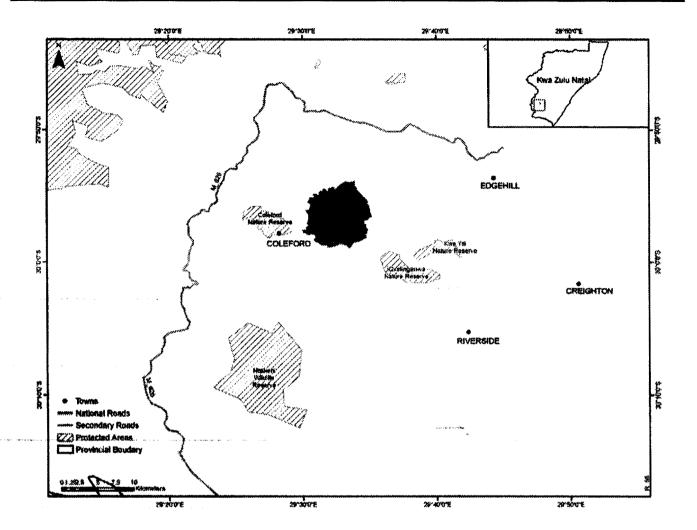
Description

Key biodiversity features include one bird species, the Wattled Crane; two millipede species including *Centrobolus tricolor* and *Doratogonus montanus*; one plant species *Kniphofia brachystachya*; one reptile species, *Bradypodion thamnobates*; and one vegetation type, the Drakensberg Foothill Moist Grassland.

Other information

The ecosystem is not protected.

Reference



Location of Pudsey/Otterburn Wetlands showing original area of ecosystem

209. Rand Highveld Grassland (Gm 11)

Reference number Gm 11

Listed under Criterion A1

Biome Grassland

Provinces Gauteng, North West, Free State and

Mpumalanga

Municipalities Ekurhuleni MM, Moqhaka LM, Emfuleni LM,

Nokeng tsa Taemane LM, Kungwini LM, Westonaria LM, City of Johannesburg MM, Greater Marble Hall LM, Elias Motsoaledi LM, Makhuduthamaga LM, Delmas LM, Emalahleni

LM, Steve Tshwete LM, Highlands LM,

Thembisile LM, Rustenburg LM, Kgetlengrivier

LM, Ditsobotla LM, Ventersdorp LM,

Potchefstroom LM, Matlosana LM, Merafong

City LM and City of Tshwane MM

Original area of ecosystem 1 026 000 ha

Remaining natural area of ecosystem (%) 60%

Proportion of ecosystem protected 1% of original area

Known number of species of special concern 5 endemic plant species

Geographical location

In areas between rocky ridges from Pretoria to Witbank, extending onto ridges in the Stoffberg and Roossenekal regions as well as west of Krugersdorp centred in the vicinity of Derby and Potchefstroom, and extending southwards and north-eastwards.

Description

Highly variable landscape with extensive sloping plains and a series of ridges slightly elevated over undulating surrounding plains. The vegetation is species-rich, wiry, sour grassland alternating with low, sour shrubland on rocky outcrops and steeper slopes. The most common grasses on the plains belong to the genera *Themeda*, *Eragrostis*, *Heteropogon* and *Elionurus*. High diversity of herbs, many of which belong to the Asteraceae, is also a typical feature. Rocky

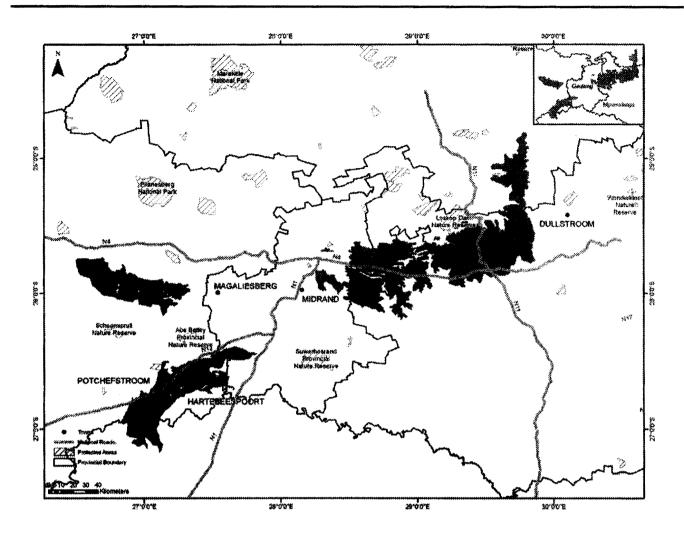
hills and ridges carry sparse (savannoid) woodlands with *Protea caffra* subsp. *caffra*, *P. welwitschii*, *Acacia caffra* and *Celtis africana*, accompanied by a rich suite of shrubs among which the genus *Rhus* (especially *R. magalismonata*) is most prominent. At least 5 endemic plant species occur in the ecosystem.

Other information

Approximately 1% of the ecosystem is protected in small patches in the Kwaggavoetpad, Van Riebeeck Park, Bronkhorstspruit and Boskop Dam Nature Reserves. The ecosystem is also found in private conservation areas for example Doornkop, Zemvelo, Rhenosterpoort and Mpopomeni.

Reference

Mucina, L., Hoare, D.B., Lotter, M.C., du Preez, P.J., Rutherford, M.C., Scott-Shaw, R., Bredenkamp, G.J., Powrie, L.W., Scott, L., Camp, K.G.T., Cilliers, S.S., Bezuidenhout, H., Mostert, T.H., Siebert, S.J., Winter, P.J.D., Burrows, J.E., Dobson, L., Ward, R.A., Stalmans, M., Oliver, E.G.H., Siebert, F., Schmidt, E., Kobisi, K., & Kose, L. 2006. Grassland Biome. In: L. Mucina & M.C. Rutherford (eds). The Vegetation of South Africa, Lesotho and Swaziland. *Strelitzia* 19: 399-400. South African National Biodiversity Institute, Pretoria.



Location of Rand Highveld Grassland showing original area of ecosystem

210. Saldanha Flats Strandveld (FS 3)

Reference number FS 3

Listed under Criterion A1

Biome Fynbos

Province Western Cape

Municipalities Bergrivier LM, Saldanha Bay LM, Swartland

LM and WCDMA01

Original area of ecosystem 76 000 ha

Remaining natural area of ecosystem (%) 48%

Proportion of ecosystem protected 11% of original area

Known number of species of special concern 26 Red Data plant species (EX, EW, CR, EN &

VU excl VU D2) and 2 endemic plant species

Geographical location

Extensive coastal flats from St Helena Bay and the southern banks of the Great Berg River near its mouth in the north to Saldanha and Langebaan in the south, with the southernmost extension at the coast near Yzerfontein and Rietduin.

Description

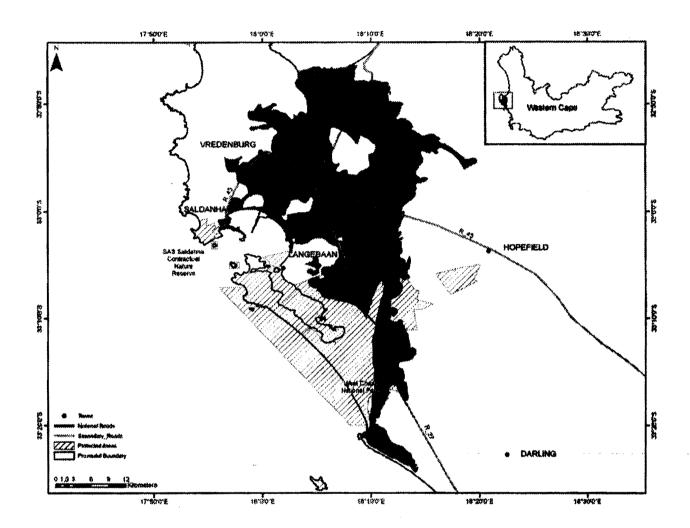
Sclerophyllous shrublands built of a sparse emergent and moderately tall shrub layer, with an open succulent shrub layer forming the undergrowth. Conspicuous displays of geophytes and annual herbaceous flora in spring. At least two endemic plant species and 26 Red Data List plant species occur in the ecosystem.

Other information

Approximately 11% is protected in the West Coast National Park and Yzerfontein Nature Reserve and a very small portion is also found in private conservation areas such as Jakkalsfontein and West Point.

Reference

Rebelo, A.G., Boucher, C., Helme, N., Mucina, L., & Rutherford, M.C. *et al.* 2006. Fynbos Biome. In: L. Mucina & M.C. Rutherford (eds). The Vegetation of South Africa, Lesotho and Swaziland. *Strelitzia* 19: 200-201. South African National Biodiversity Institute, Pretoria.



Location of Saldanha Flats Stranveld showing original area of ecosystem

211. Schweizer-Reneke Bushveld (SVk 3)

Reference number SVk 3

Listed under Criterion A1

Biome Savanna

Province North West

Municipalities Tswaing LM, Naledi LM, Mamusa LM, Greater

Taung LM and Lekwa-Teemane LM

Original area of ecosystem 203 000 ha

Remaining natural area of ecosystem (%) 57%

Proportion of ecosystem protected 0% of original area

Known number of species of special concern

Geographical location

Schweizer-Reneke area in the east to Amalia in the west and from the farming areas of around Broedersput in the north to Never Mind (Christiana District) in the south.

Description

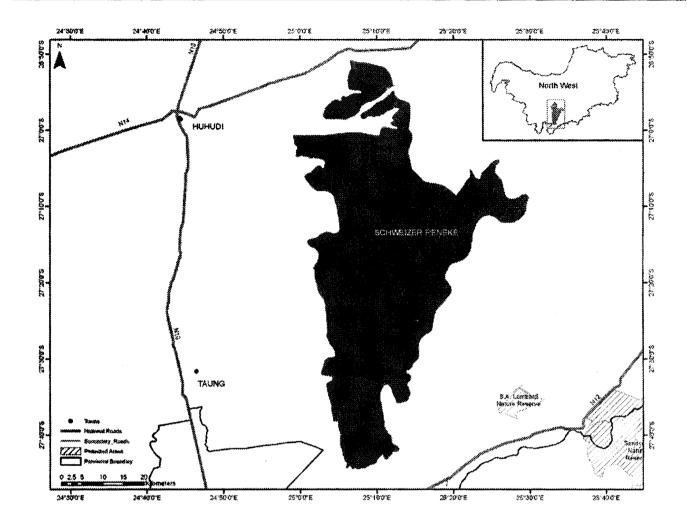
Plains, slightly undulating plains and some hills, supporting open woodland with a fairly dense shrub layer, with trees *Acacia erioloba*, *A. karroo*, *A. tortilis*, *Rhus lancea* and shrubs *A. hebeclada*, *Diospyros lycioides*, *Grewia flava* and *Tarchonanthus camphoratus*.

Other information

The ecosystem is not protected.

Reference

Rutherford, M.C., Mucina, L., Lotter, M.C., Bredenkamp, G.J., Smit, J.H.L., Scott-Shaw, R., Hoare, D.B., Goodman, P.S., Bezuidenhout, H., Scott, L., Ellis, F., Powrie, L.W., Siebert, F., Mostert, T.H., Henning, B.J., Venter, C.E., Camp, K.G.T., Siebert, S.J., Matthews, W.S., Burrows, J.E., Dobson, L., van Rooyen, N., Schmidt, E., Winter, P.J.D., du Preez, P.J., Ward, R.A., Williamson, S. & Hurter, P.J.H. 2006. Savanna Biome. In: L. Mucina & M.C. Rutherford (eds). The Vegetation of South Africa, Lesotho and Swaziland. *Strelitzia* 19: 516. South African National Biodiversity Institute, Pretoria.



Location of Schweizer-Reneke Bushveld showing original area of ecosystem

212. Sherwood Forest Collective (KZN 79)

Reference number KZN 79

Listed under Criterion F

Biome Grassland and Forest

Province KwaZulu-Natal

Municipalities uMngeni LM and Mooi Mpofana LM

Original area of ecosystem 2 000 ha

Remaining natural area of ecosystem (%) 45%

Proportion of ecosystem protected 0% of original area

Known number of species of special concern 7 threatened or endemic plant and animal

species including those listed below

Geographical location

Howick (2930AC). Ecosystem includes all the Eastern Mistbelt Forest patches situated along the north facing slope and entirely contained within the Drakensberg Foothill Mistbelt Grassland. Ecosystem delineated by the lowermost contour of the slope and the Mooi River Highland Grassland in the north; and by the 'crest' contour of the same slope in the south. All forest patches lying in this defined area are included.

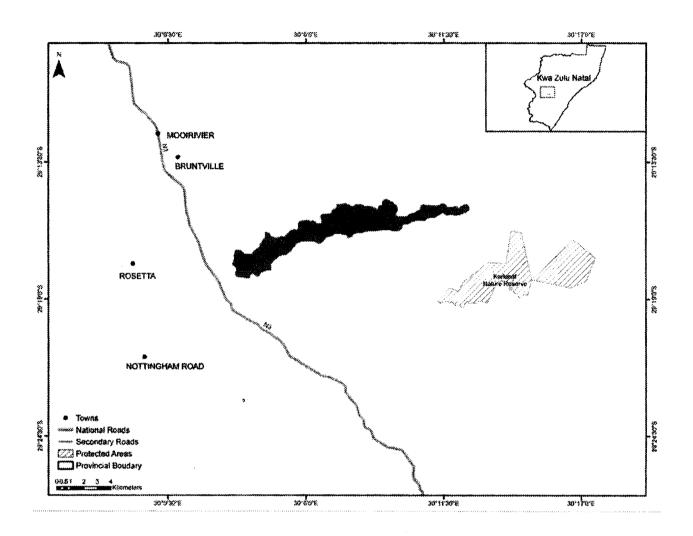
Description

Key biodiversity features include one amphibian, *Afrixalus spinifrons intermedius*; one bird species, the Wattled Crane; one mammal species, the Oribi; three millipede species including *Centrobolus tricolor*, *Doratogonus hoffmani* and *Doratogonus montanus*; one plant species, *Kniphofia brachystachya*; one reptile species, *Bradypodion thamnobates*; and three vegetation types including Drakensberg Foothill Moist Grassland, Eastern Mistbelt Forest and Mooi River Highland Grassland.

Other Information

The ecosystem is not protected.

Reference



Location of Sherwood Forest Collective showing original area of ecosystem