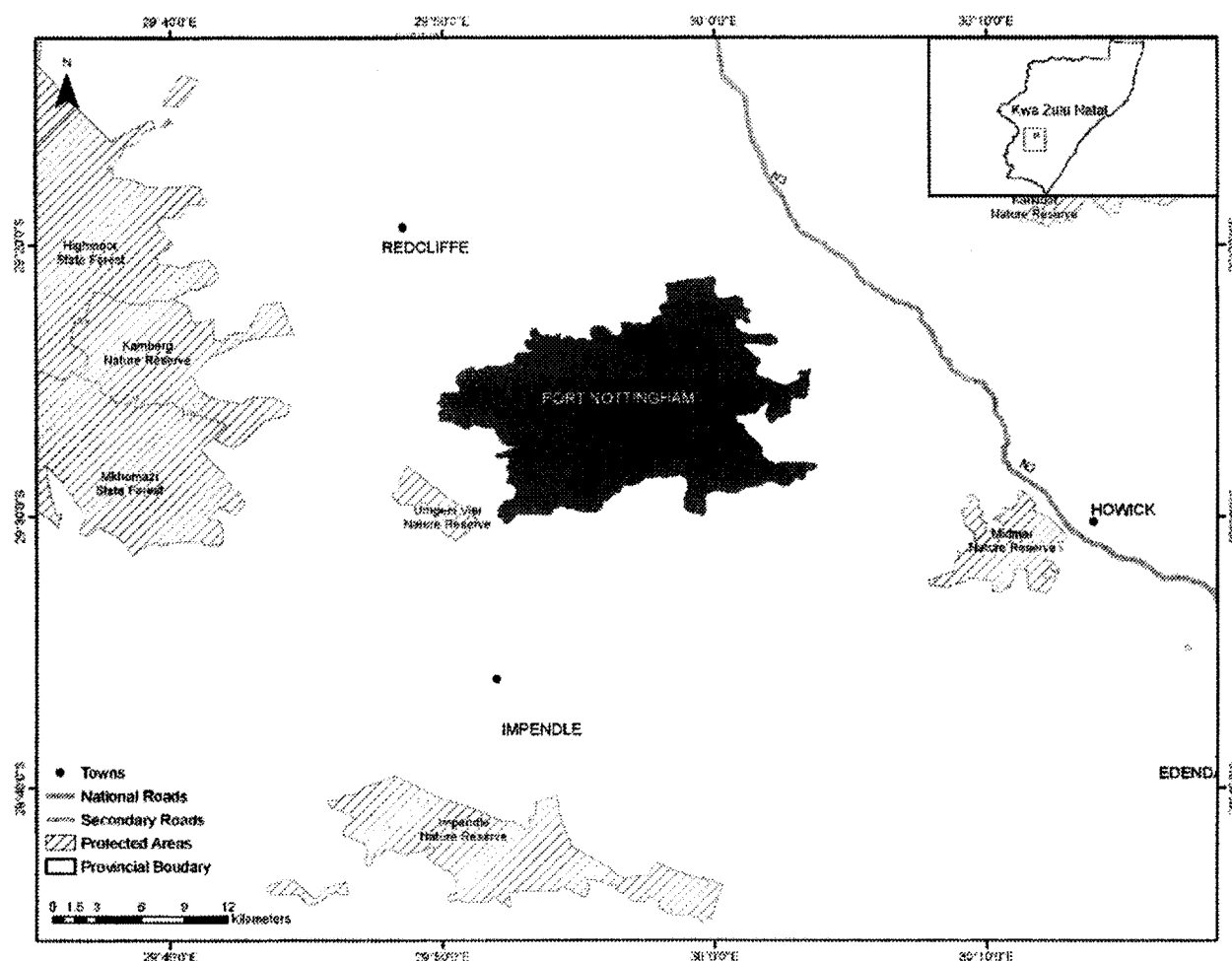


## Reference

Goodman, P.S. 2007. KwaZulu-Natal Terrestrial Conservation Plan (C-Plan), Version 4. Biodiversity Conservation Planning Division, Ezemvelo KZN Wildlife.



**Location of Fort Nottingham Lowland Grasslands showing original area of ecosystem**

**154. Garden Route Shale Fynbos (FFh 9)**

|  |   |
|--|---|
| Reference number                           | FFh 9   |
| Listed under Criterion                     | A1  |
| Biome                                      | Fynbos  |
| Provinces                                  | Western Cape and Eastern Cape   |
| Municipalities                             | Kouga LM, Kou-Kamma LM, Hessequa LM, Mossel Bay LM, George LM, Plettenberg Bay LM and Knysna LM |
| Original area of ecosystem                 | 57 000 ha   |
| Remaining natural area of ecosystem (%)    | 44%   |
| Proportion of ecosystem protected          | 4% of original area   |
| Known number of species of special concern | 8 Red Data plant species (EX, EW, CR, EN & VU excl VU D2) and 3 endemic plant species           |

**Geographical location**

Patches along the coastal foothills of the Langeberg at Grootberg (northeast of Heidelberg), the Outeniqua Mountains from Cloete's Pass via the Groot Brak River Valley, Hoekwil, Karatara, Barrington and Knysna to Plettenberg Bay. Patches from the Bloukrans Pass along coastal platform shale bands south of the Tsitsikamma Mountains via Kleinbos and Fynboshoek to south of both Clarkson and the Kareedouw Mountains.

**Description**

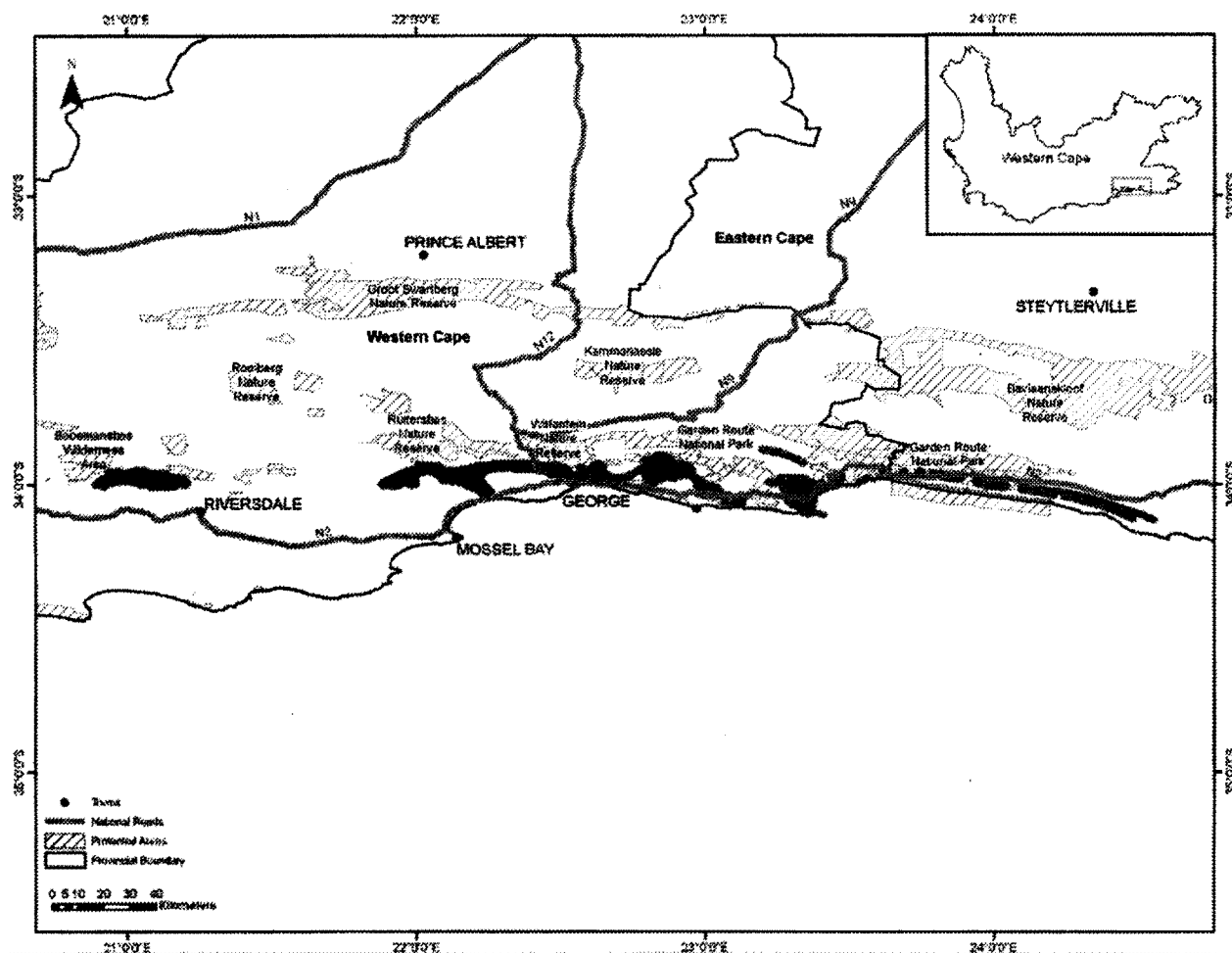
Undulating hills and moderately undulating plains on the coastal forelands. Structurally it consists of tall, dense proteoid and ericaceous fynbos in wetter areas, and graminoid fynbos (or shrubby grassland) in drier areas. Fynbos appears confined to flatter more extensive landscapes that are exposed to frequent fires. Most of the shales are covered with afrotemperate forest. Fairly wide belts of *Virgilia oroboides* occur on the interface between fynbos and forest. Fire-safe habitats nearer the coast have small clumps of thicket, and valley floors have scrub forest. At least three endemic plant species and eight Red Data List plant occur in the ecosystem.

### Other information

Approximately 4% of the ecosystem is protected in the Garden Route National Park and a further 1% in Boosmansbos Wilderness Area. A further 3% is found in other (mainly private) conservation areas such as the Robbe Hoek Forest Reserve.

### 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: 152. South African National Biodiversity Institute, Pretoria.



**Location of Garden Route Shale Fynbos showing original area of ecosystem (area of ecosystem enlarged for visibility at this scale)**

**155. Glen Cairn Valley (KZN 53)**

|  |   |
|--|---|
| Reference number                           | KZN 53  |
| Listed under Criterion                     | F   |
| Biome                                      | Grassland and Savanna   |
| Province                                   | KwaZulu-Natal   |
| Municipality                               | Richmond LM   |
| Original area of ecosystem                 | 4 000 ha  |
| Remaining natural area of ecosystem (%)    | 39%   |
| 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**

Byrne (2930CC). Ecosystem includes the entire valley basin and is delineated by the prominent plateau, river and ridge features.

**Description**

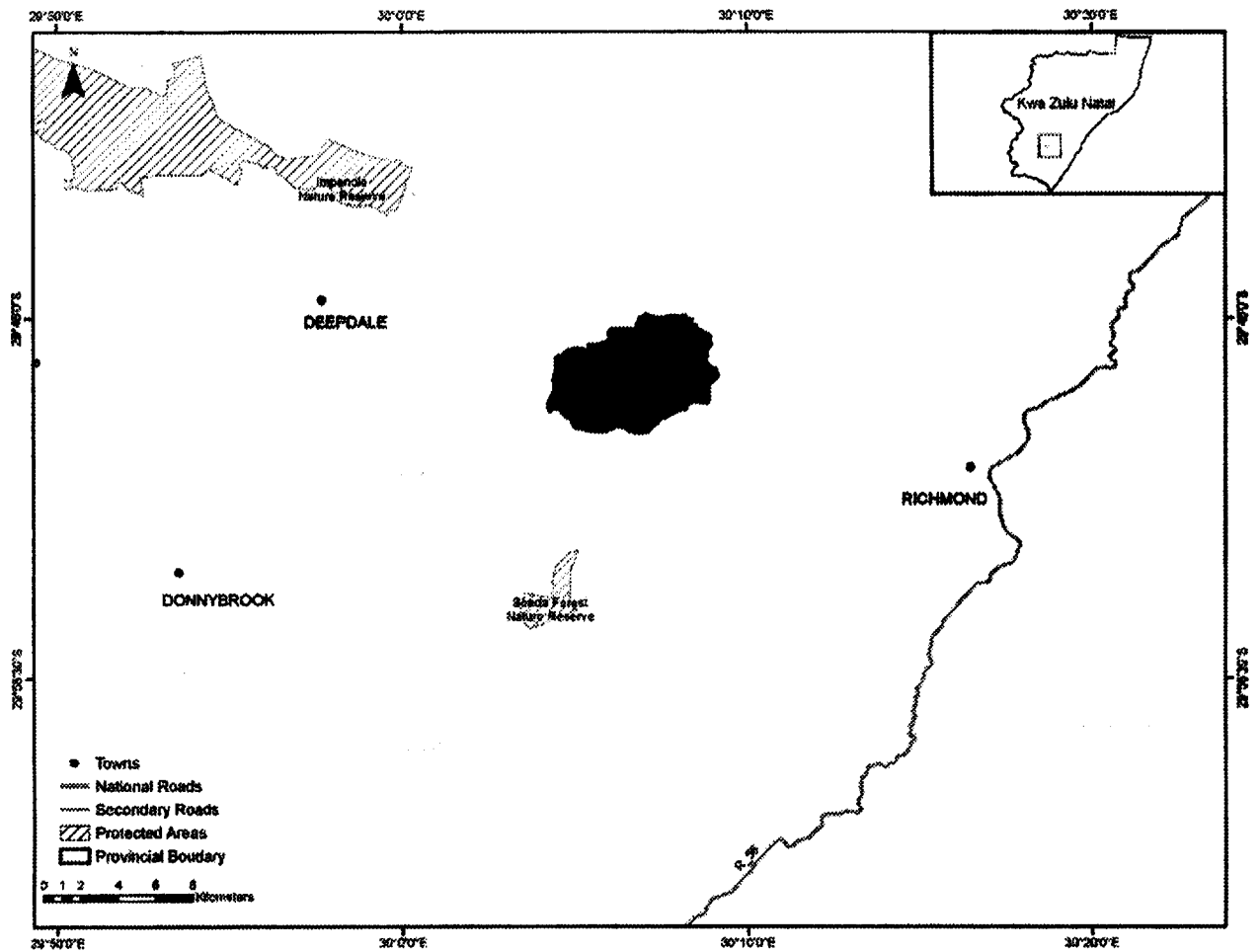
Key biodiversity features include one amphibian species, *Afrixalus spinifrons intermedius*, one bird species, the Blue Swallow; one millipede species, *Doratogonus montanus*; two plant species for example *Senecio exuberans*; and three vegetation types including Eastern Valley Bushveld, Midlands Mistbelt Grassland and Southern KwaZulu-Natal Moist Grassland.

**Other information**

The ecosystem is not protected.

**Reference**

Goodman, P.S. 2007. KwaZulu-Natal Terrestrial Conservation Plan (C-Plan), Version 4. Biodiversity Conservation Planning Division, Ezemvelo KZN Wildlife.



**Location of Glen Calm Valley showing original area of ecosystem**

**156. Gold Cliff Farm Surrounds (KZN 54)**

|  |   |
|--|---|
| Reference number                           | KZN 54  |
| Listed under Criterion                     | F   |
| Biome                                      | Grassland and Savanna   |
| Province                                   | KwaZulu-Natal   |
| Municipality                               | Ubuhlebezwe LM  |
| Original area of ecosystem                 | 2 000 ha  |
| Remaining natural area of ecosystem (%)    | 32%   |
| Proportion of ecosystem protected          | 0% of original area   |
| Known number of species of special concern | 4 threatened or endemic plant and animal species including those listed below |

**Geographical location**

Ixopo (3030AA). Ecosystem delineated by a combination of ridge lines and river valleys.

**Description**

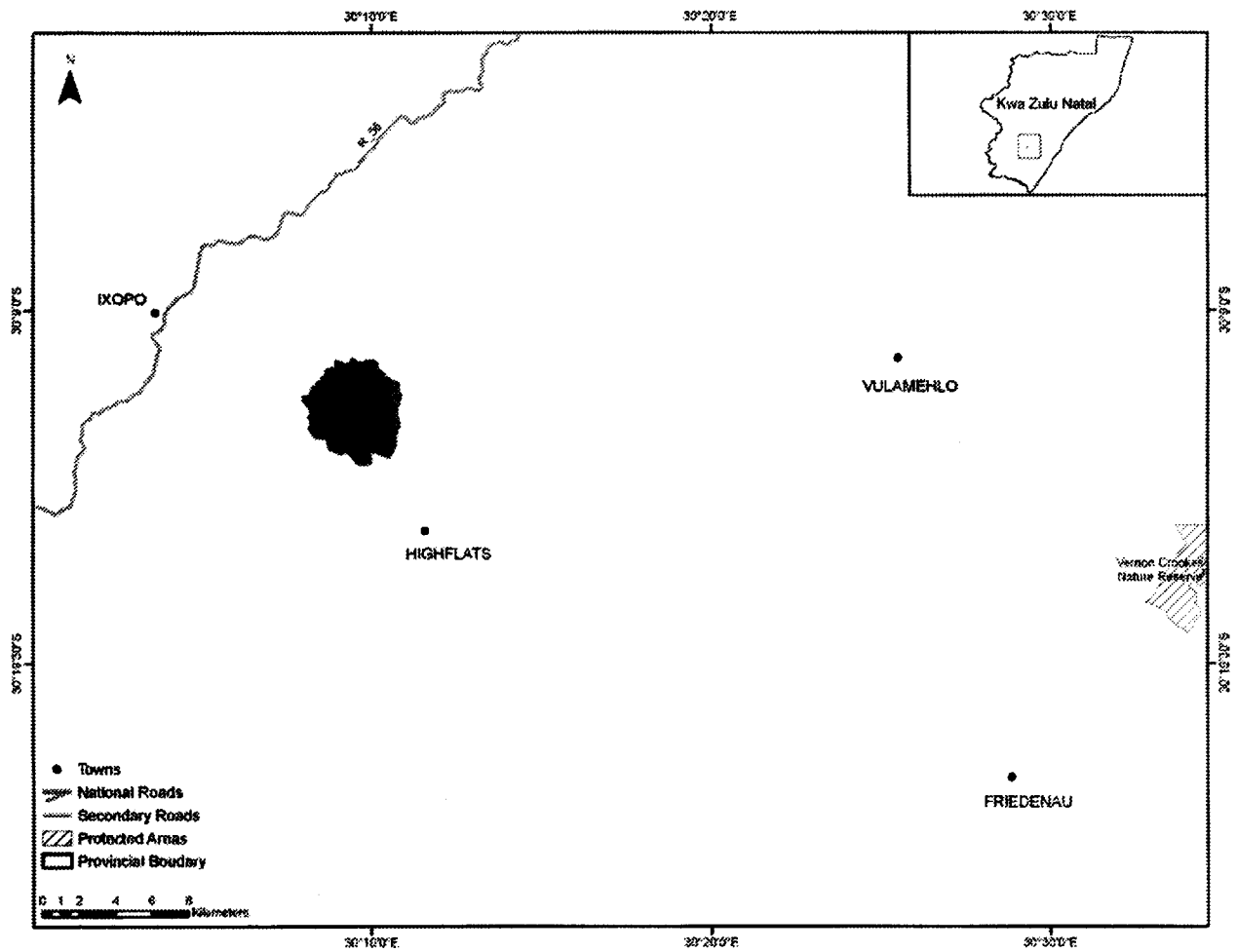
Key biodiversity features include one bird species, the Blue Swallow; one mammal species, the Oribi; one millipede species, *Doratogonus montanus*; one plant species and three vegetation types including Ngongoni Veld, Eastern Valley Bushveld and Midlands Mistbelt Grasslands.

**Other information**

The ecosystem is not protected.

**Reference**

Goodman, P.S. 2007. KwaZulu-Natal Terrestrial Conservation Plan (C-Plan), Version 4. Biodiversity Conservation Planning Division, Ezemvelo KZN Wildlife.



**Location of Gold Cliff Farm Surrounds showing original area of ecosystem**

**157. Harding East (KZN 55)**

|  |   |
|--|---|
| Reference number                           | KZN 55  |
| Listed under Criterion                     | F   |
| Biome                                      | Savanna   |
| Province                                   | KwaZulu-Natal   |
| Municipalities                             | UMuziwabantu LM and Umzimkhulu LM   |
| Original area of ecosystem                 | 5 000 ha  |
| Remaining natural area of ecosystem (%)    | 21%   |
| Proportion of ecosystem protected          | 0% of original area   |
| Known number of species of special concern | 4 threatened or endemic plant and animal species including those listed below |

**Geographical location**

Harding (3029DB). Ecosystem delineated by ridge lines to capture the valley features.

**Description**

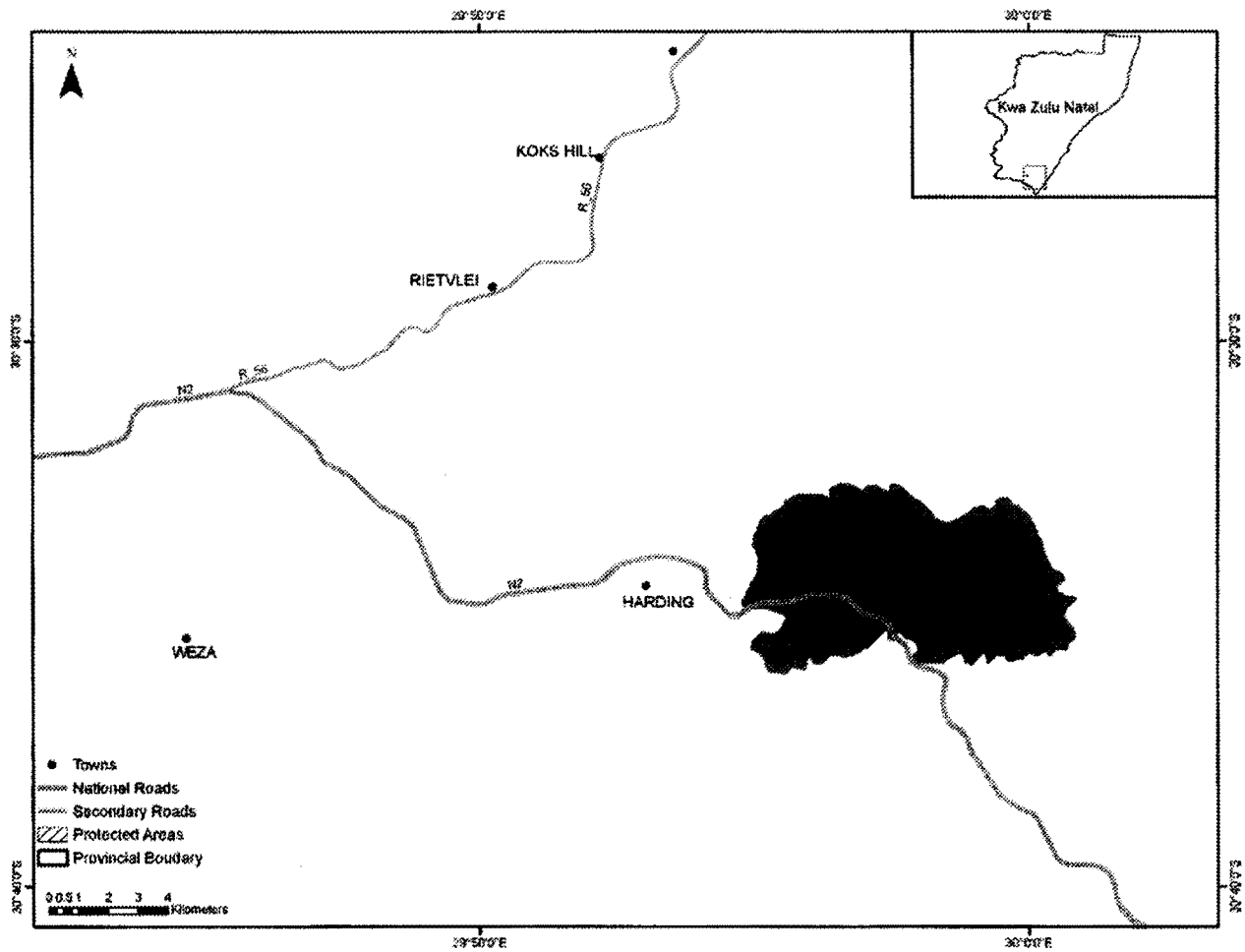
Key biodiversity features include one bird species, the Blue Swallow; one millipede species, *Doratogonus montanus*; two plant species for example *Dierama reynoldsii*; and one vegetation type, Ngongoni Veld.

**Other Information**

The ecosystem is not protected.

**Reference**

Goodman, P.S. 2007. KwaZulu-Natal Terrestrial Conservation Plan (C-Plan), Version 4. Biodiversity Conservation Planning Division, Ezemvelo KZN Wildlife.



Location of Harding East showing original area of ecosystem

**158. Harding West (KZN 56)**

|  |  |
|--|--|
| Reference number                           | KZN 56   |
| Listed under Criterion                     | F  |
| Biome                                      | Grassland  |
| Province                                   | KwaZulu-Natal  |
| Municipality                               | UMuziwabantu LM  |
| Original area of ecosystem                 | 3 000 ha   |
| Remaining natural area of ecosystem (%)    | 14%  |
| Proportion of ecosystem protected          | 0% of original area  |
| Known number of species of special concern | 4 threatened or endemic animal species<br>including those listed below |

**Geographical location**

Harding (3029DB). Ecosystem encompasses the valley and natural grasslands that include all current and historical blue swallow sites in the area.

**Description**

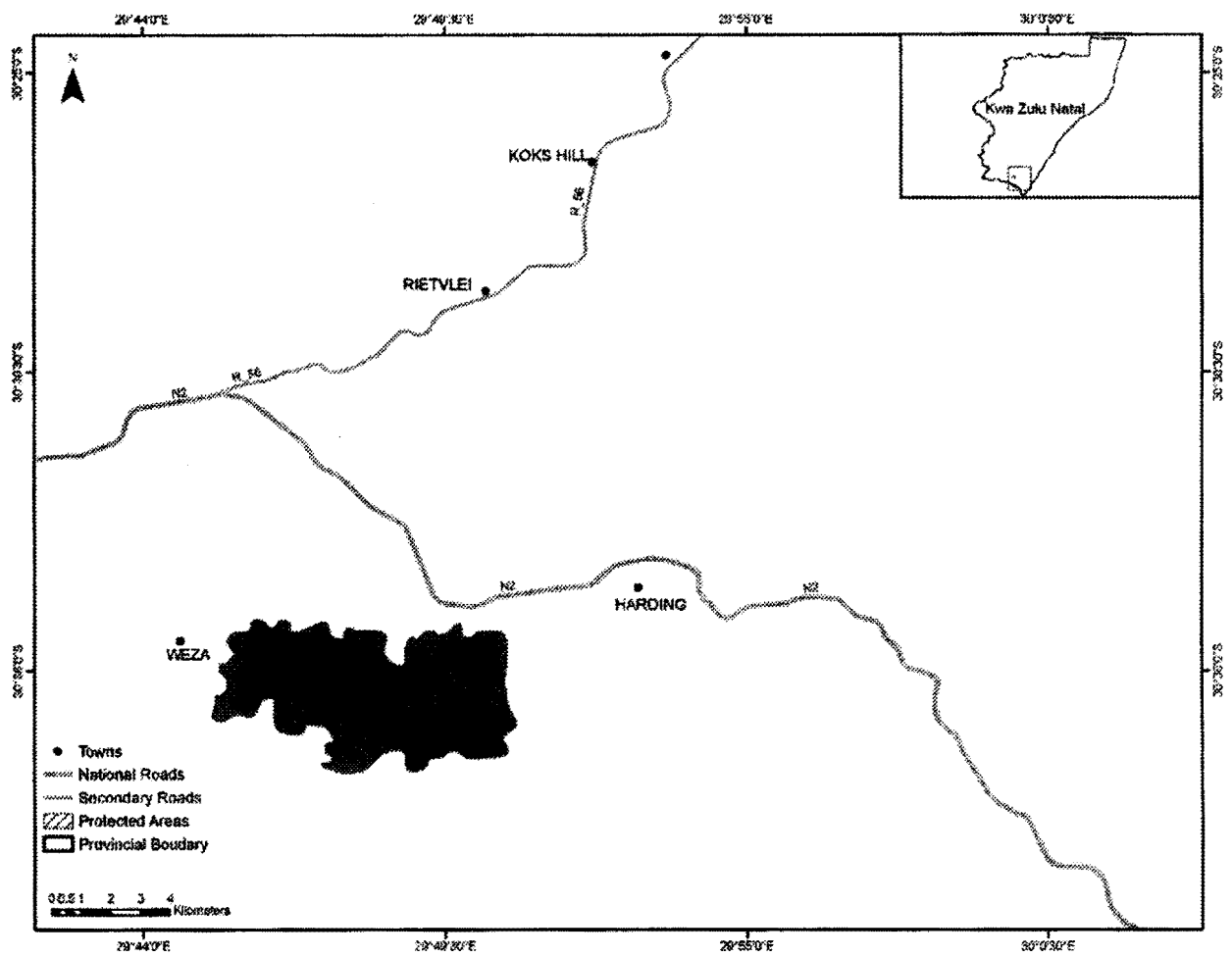
Key biodiversity features include one amphibian species, *Arthroleptella ngongoniensis*, one bird species, the Blue Swallow; one millipede species, *Doratogonus montanus*; one reptile species, *Bradypodion wezae*; and one vegetation types, Midlands Mistbelt Grassland.

**Other information**

The ecosystem is not protected.

**Reference**

Goodman, P.S. 2007. KwaZulu-Natal Terrestrial Conservation Plan (C-Plan), Version 4. Biodiversity Conservation Planning Division, Ezemvelo KZN Wildlife.



Location of Harding West showing original area of ecosystem

**159. Hawequas Sandstone Fynbos (FFs 10)**

|  |   |
|--|---|
| Reference number                           | FFs 10  |
| Listed under Criterion                     | D1  |
| Biome                                      | Fynbos  |
| Province                                   | Western Cape  |
| Municipalities                             | Swartland LM, Witzenberg LM, Drakenstein LM, Stellenbosch LM, Breede Valley LM and Theewaterskloof LM |
| Original area of ecosystem                 | 105 000 ha  |
| Remaining natural area of ecosystem (%)    | 97%   |
| Proportion of ecosystem protected          | 50% of original area  |
| Known number of species of special concern | 42 Red Data plant species (EX, EW, CR, EN & VU excl VU D2) and 85 endemic plant species               |

**Geographical location**

Between the Nuwekloof Pass near Gouda in the north to Franschhoek Pass near Franschhoek including the Elandskloof, Hawequas, Slanghoek, Klein-Drakenstein, Wemmershoek, Du Toitskloof and Stettyns Mountains.

**Description**

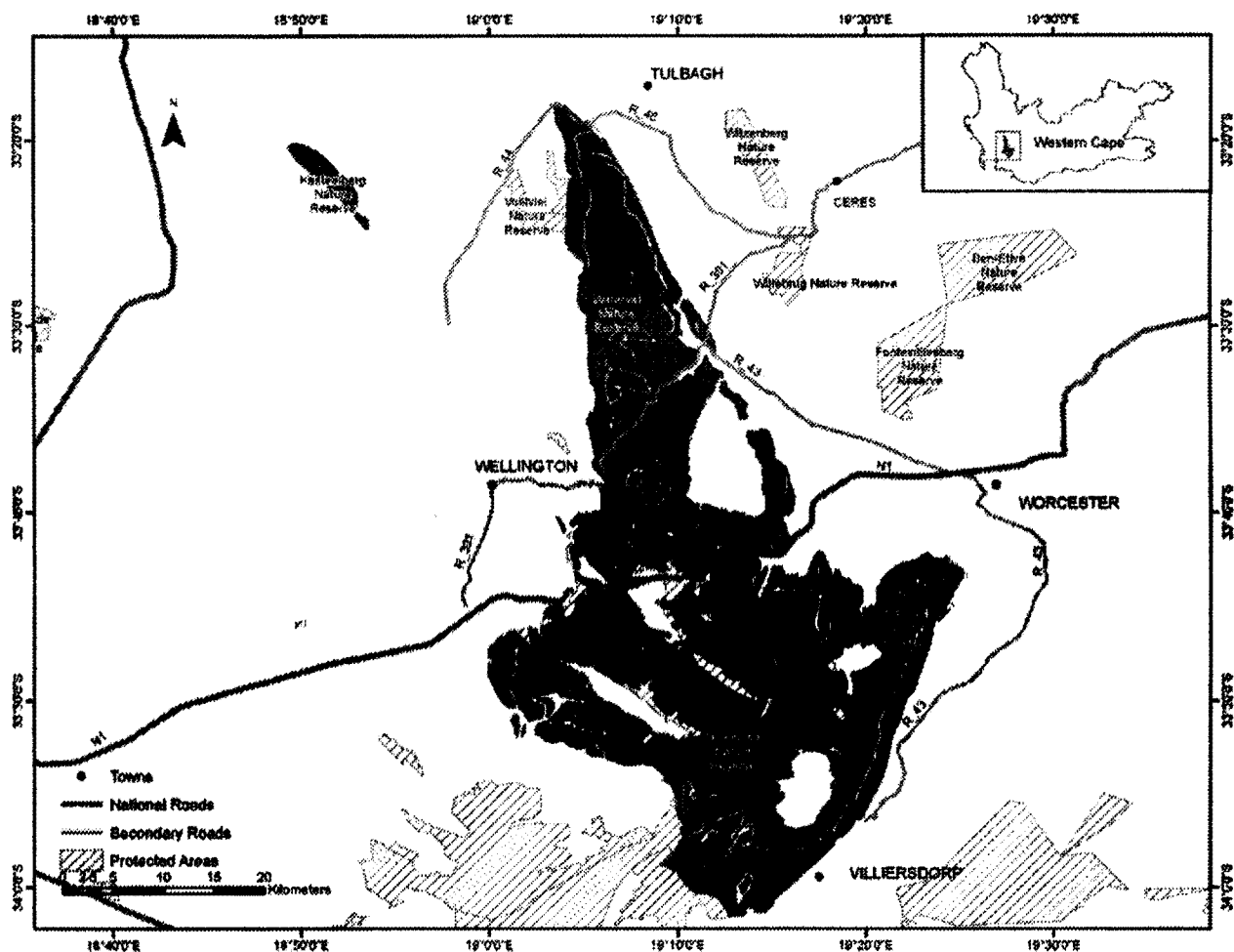
Mountains with slopes of various steepness, flanks of intermontane valleys and upland plateaus. A band of Cedarberg Shale Formation forms a prominent step at high altitude. Vegetation forms a low closed shrubland dotted with emergent tall shrubs; mainly proteoid, restioid and asteraceous fynbos with much waboomveld at lower altitudes; ericaceous fynbos at higher altitudes; and abundant Cape thickets (especially in the north of the ecosystem) on cliffs and very steep rocky (scree) slopes. At least 85 endemic plant species and 42 Red Data List plant species occur in the ecosystem.

**Other Information**

More than half of the ecosystem is protected in the Limietberg, Theewaters and Waterval Nature Reserves, with an additional 36% found in the Hawequas Mountain Catchment Area.

## 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*: 108-109. South African National Biodiversity Institute, Pretoria.



Location of Hawequas Sandstone Fynbos showing original area of ecosystem

**160. Himeville Lowlands and Ridge (KZN 57)**

|  |  |
|--|--|
| Reference number                           | KZN 57   |
| Listed under Criterion                     | F  |
| Biome                                      | Grassland  |
| Province                                   | KwaZulu-Natal  |
| Municipalities                             | Kwa Sani LM and KZDMA43  |
| Original area of ecosystem                 | 11 000 ha  |
| Remaining natural area of ecosystem (%)    | 49%  |
| Proportion of ecosystem protected          | 4% of original area  |
| Known number of species of special concern | 10 threatened or endemic plant and animal species including those listed below |

**Geographical location**

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

**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*; three plant species including *Hesperantha woodii*, *Kniphofia brachystachya* and *Kniphofia breviflora*; one reptile species, *Bradypodion thamnobates*; and three vegetation types including Drakensberg Foothill Moist Grassland, Mooi River Highland Grassland and Southern Drakensberg Highland Grassland.

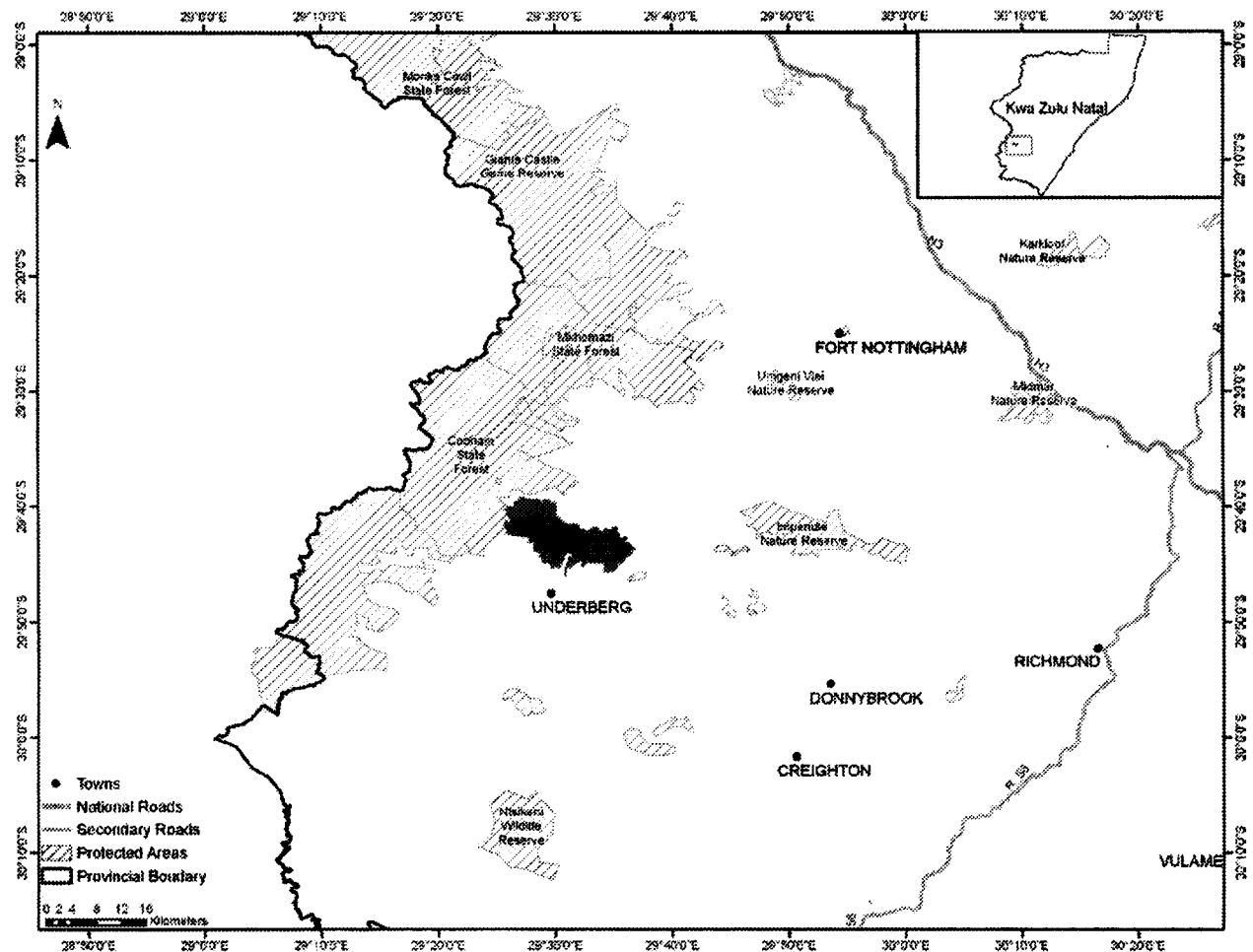
**Other information**

About 4% of the ecosystem is protected in the Himeville Nature Reserve and Cobham State Forest.

## Reference

Goodman, P.S. 2007. KwaZulu-Natal Terrestrial Conservation Plan (C-Plan), Version 4.

Biodiversity Conservation Planning Division, Ezemvelo KZN Wildlife.



**Location of Himeville Lowlands and Ridge showing original area of ecosystem**

**161. Hluhluwe Scarp Forest (KZN 58)**

|  |   |
|--|---|
| Reference number                           | KZN 58  |
| Listed under Criterion                     | F   |
| Biome                                      | Savanna, Grassland and Forest   |
| Province                                   | KwaZulu-Natal   |
| Municipalities                             | Hlabisa LM and KZDMA27  |
| Original area of ecosystem                 | 2 000 ha  |
| Remaining natural area of ecosystem (%)    | 94%   |
| Proportion of ecosystem protected          | 87% of original area  |
| Known number of species of special concern | 7 threatened or endemic plant and animal species including those listed below |

**Geographical location**

Ntondweni (2832AA). Ecosystem delineated by the scarp forest in Hluhluwe Game Reserve and adjacent areas.

**Description**

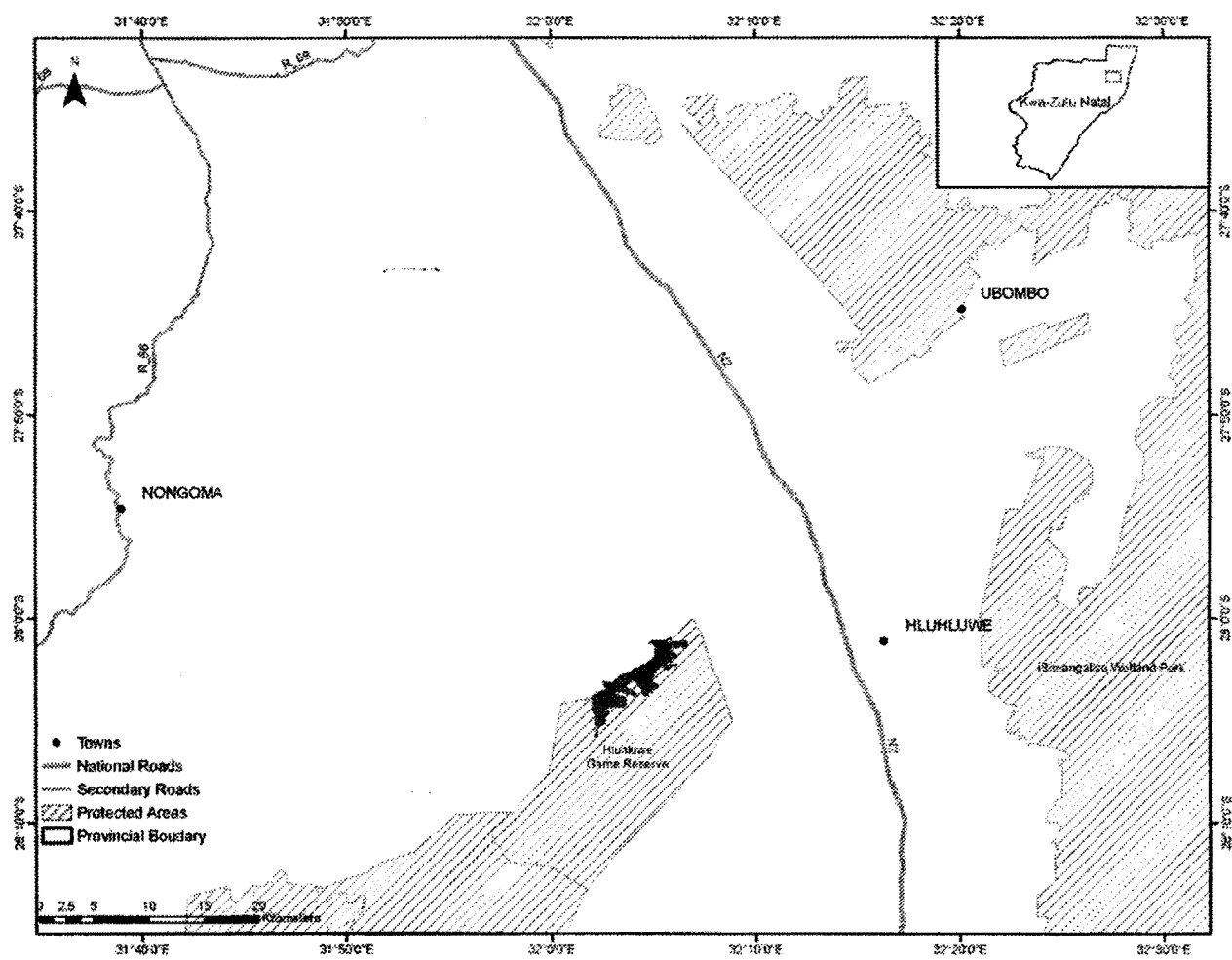
Key biodiversity features include six millipede species including *Allawrencius complex*, *Allawrencius gladiator*, *Allawrencius nodulosus*, *Centrobolus fulgidus*, *Centrobolus rugulosus* and *Doratogonus hoffmani*; one plant species, *Albizia suluensis*; and three vegetation types including Eastern Scarp Forest, Northern Zululand Sourveld and Zululand Lowveld.

**Other Information**

Approximately 87% of the ecosystem is protected in the Hluhluwe Game Reserve.

**Reference**

Goodman, P.S. 2007. KwaZulu-Natal Terrestrial Conservation Plan (C-Plan), Version 4. Biodiversity Conservation Planning Division, Ezemvelo KZN Wildlife.



**Location of Hluhluwe Scarp Forest showing original area of ecosystem**

**162. Hopefield Sand Fynbos (FFd 3)**

|  |  |
|--|--|
| Reference number                           | FFd 3  |
| Listed under criteria                      | A1 and D1  |
| Biome                                      | Fynbos   |
| Province                                   | Western Cape   |
| Municipalities                             | Bergrivier LM, Saldanha Bay LM, Swartland LM and WCDMA01                               |
| Original area of ecosystem                 | 180 000 ha   |
| Remaining natural area of ecosystem (%)    | 49%  |
| Proportion of ecosystem protected          | < 1% of original area  |
| Known number of species of special concern | 45 Red Data plant species (EX, EW, CR, EN & VU excl VU D2) and 5 endemic plant species |

**Geographical location**

West Coast lowlands from Aurora to Rondeberg, just south of Yzerfontein, with an outlier in the Strandveld at Kleinberg north of Langebaanweg.

**Description**

Coastal sand plains, flat to undulating, and also including localised inland dune fields.

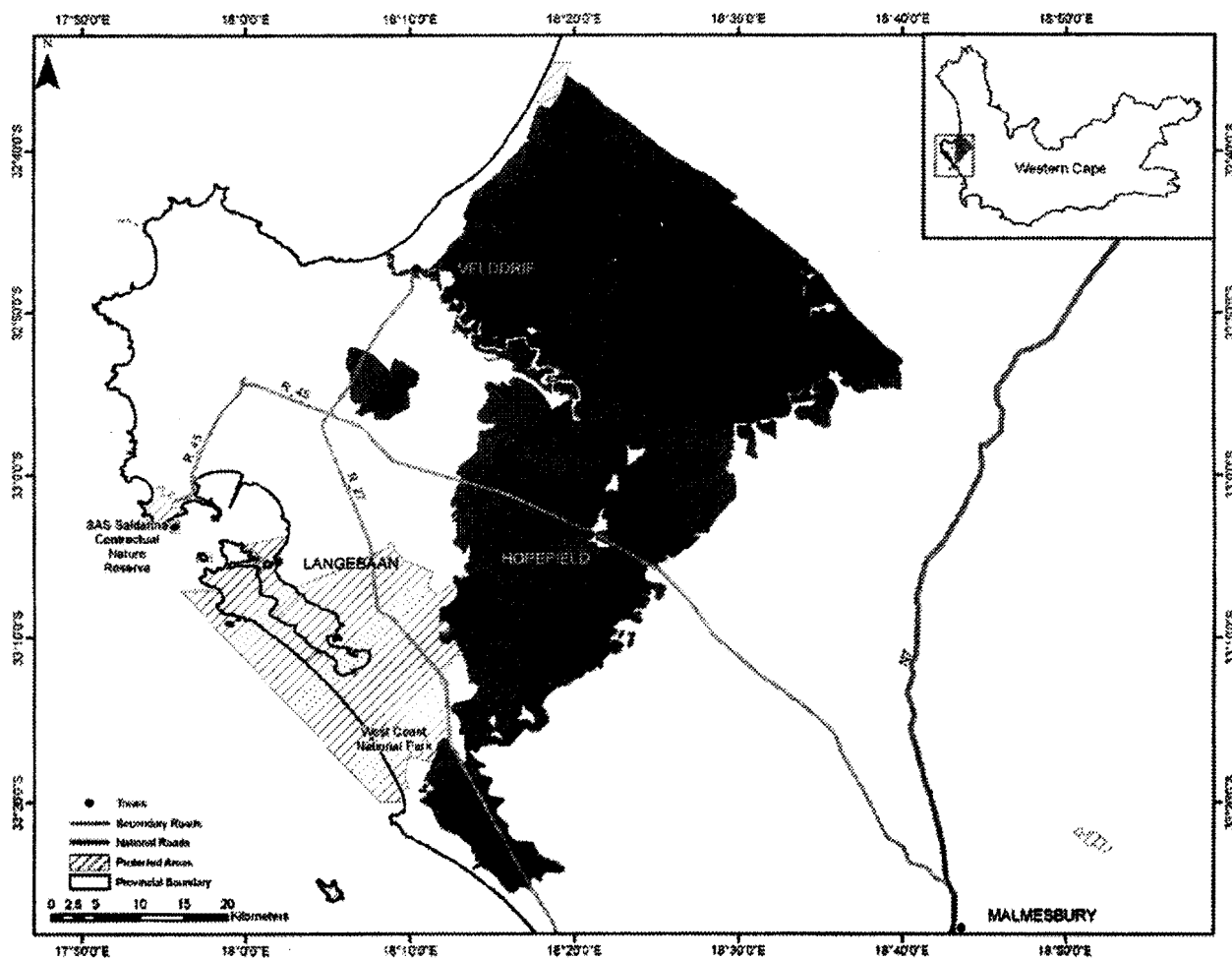
Vegetation is a moderately tall, ericoid-leaved shrubland with dense herbaceous stratum of aphyllous hemicryptophytes. This is mostly asteraceous and restioid fynbos, although proteoid fynbos is extensive and ericaceous fynbos occurs in seeps and along watercourses. Hopefield Sand Fynbos has all three typical fynbos elements, but with a paucity (in species richness and density) of Ericaceae. The ecosystem is most diverse in the Hopefield area, where extensive stands of *Leucadendron foedum*, *Leucospermum rodolentum* and *Serruria fucifolia* are dominant. At least five endemic plant species and 45 Red Data List plant species occur in the ecosystem.

**Other information**

A very small portion is protected in the West Coast National Park, with an additional 2% found in Hopefield and Jakkalsfontein Nature Reserves.

## Reference

Rebello, 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: 138. South African National Biodiversity Institute, Pretoria.



Location of Hopefield Sand Fynbos showing original area of ecosystem

**163. Imfolosi Savanna and Sourveld (KZN 59)**

|  |   |
|--|---|
| Reference number                           | KZN 59  |
| Listed under Criterion                     | F   |
| Biome                                      | Savanna and Grassland   |
| Province                                   | KwaZulu-Natal   |
| Municipalities                             | Nongoma LM, Ulundi LM, Ntambanana LM, Mthonjaneni LM and KZDMA27              |
| Original area of ecosystem                 | 63 000 ha   |
| Remaining natural area of ecosystem (%)    | 72%   |
| Proportion of ecosystem protected          | 2% of original area   |
| Known number of species of special concern | 6 threatened or endemic plant and animal species including those listed below |

**Geographical location**

Hlabisa (2831BB), Maphophoma (2831BA), Ntiningwe (2831BC), Mfolozi (2831BD), Nkwalini (2831DA), Empangeni (2831DB). Ecosystem consists of savanna and sourveld identified for the Black Rhino Range Expansion Programme and is a neighbour to Imfolosi Game Reserve on the north, west and south of the reserve. It incorporates the Fundimvelo Nature Reserve.

**Description**

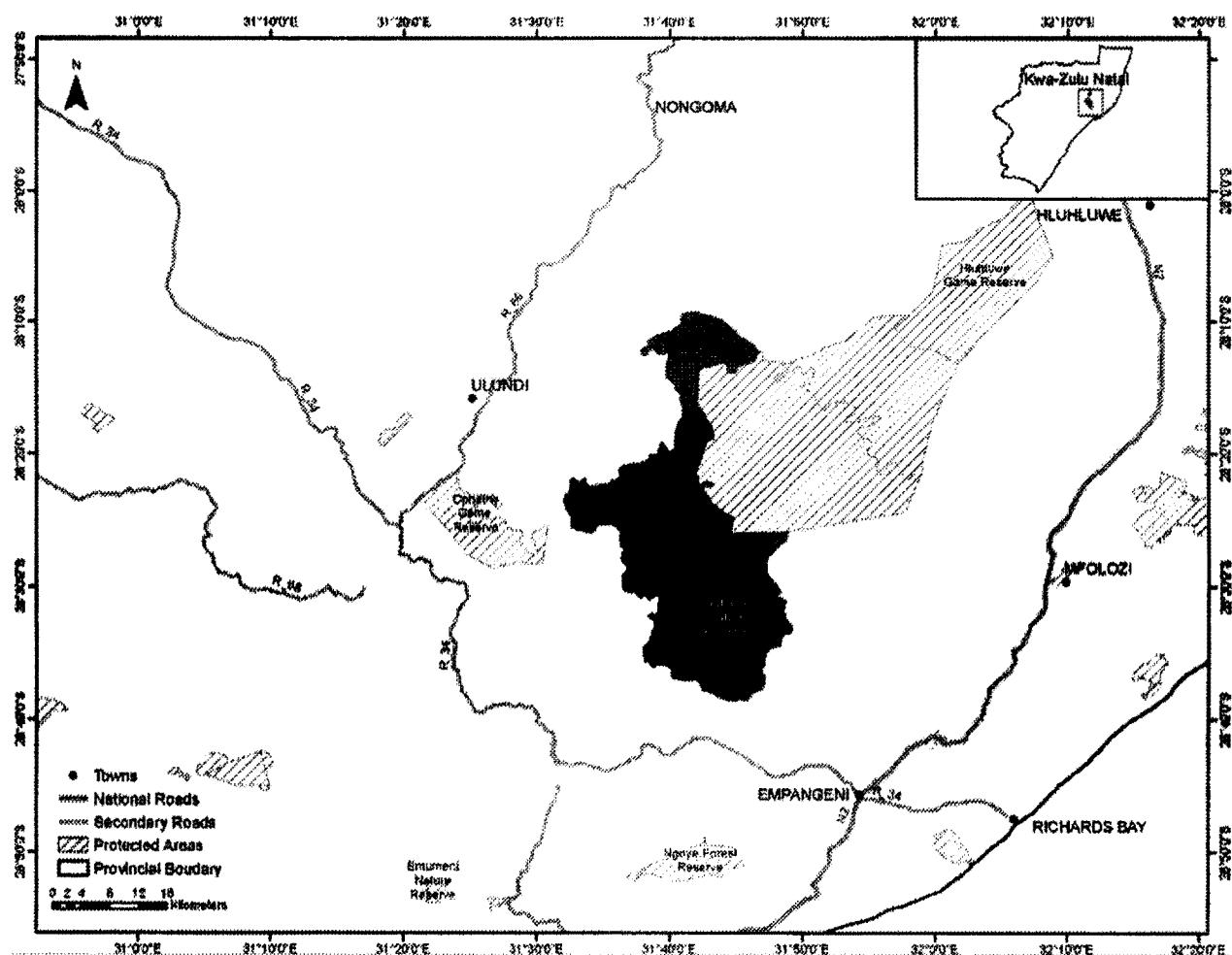
Key biodiversity features include two mammal species including Black Rhino and Wild Dog; two bird species including Whiteheaded Vulture and Lappetfaced Vulture; one millipede species, *Doratogonus natalensis*; two plant species *Diospyros glandulifera* and *Helichrysum woodii*; and three vegetation types including Ngongoni Veld, Northern Zululand Sourveld and Zululand Lowveld.

**Other information**

Approximately 2% of the ecosystem is protected in the Imfolozi Game Reserve and Fundimvelo Nature Reserve.

## Reference

Goodman, P.S. 2007. KwaZulu-Natal Terrestrial Conservation Plan (C-Plan), Version 4. Biodiversity Conservation Planning Division, Ezemvelo KZN Wildlife.



**Location of Imfolosi Savanna and Sourveld showing original area of ecosystem**

**164. Impendle Lowland Grasslands (KZN 60)**

|  |  |
|--|--|
| Reference number                           | KZN 60   |
| Listed under Criterion                     | F  |
| Biome                                      | Grassland and Forest   |
| Province                                   | KwaZulu-Natal  |
| Municipalities                             | uMngeni LM, Impendle LM and Ingwe LM   |
| Original area of ecosystem                 | 11 200 ha  |
| Remaining natural area of ecosystem (%)    | 72%  |
| Proportion of ecosystem protected          | 0% of original area  |
| Known number of species of special concern | 14 threatened or endemic plant and animal species including those listed below |

**Geographical location**

Impendle (2929DB) and Merrivale (2930CA). Ecosystem lies in the valley between the Drakensberg Foothill Wattled Crane Habitat threatened ecosystem (KZN 47), the Impendle Highlands threatened ecosystem (KZN 28), the KwaMncane North Plateau threatened ecosystem (KZN 63) and the Beinn Mheadmon Mountain Grassland threatened ecosystem (KZN 39). Ecosystem is restricted to the Drakensberg Foothill Moist Grasslands but does include Eastern Mistbelt Forest patches.

**Description**

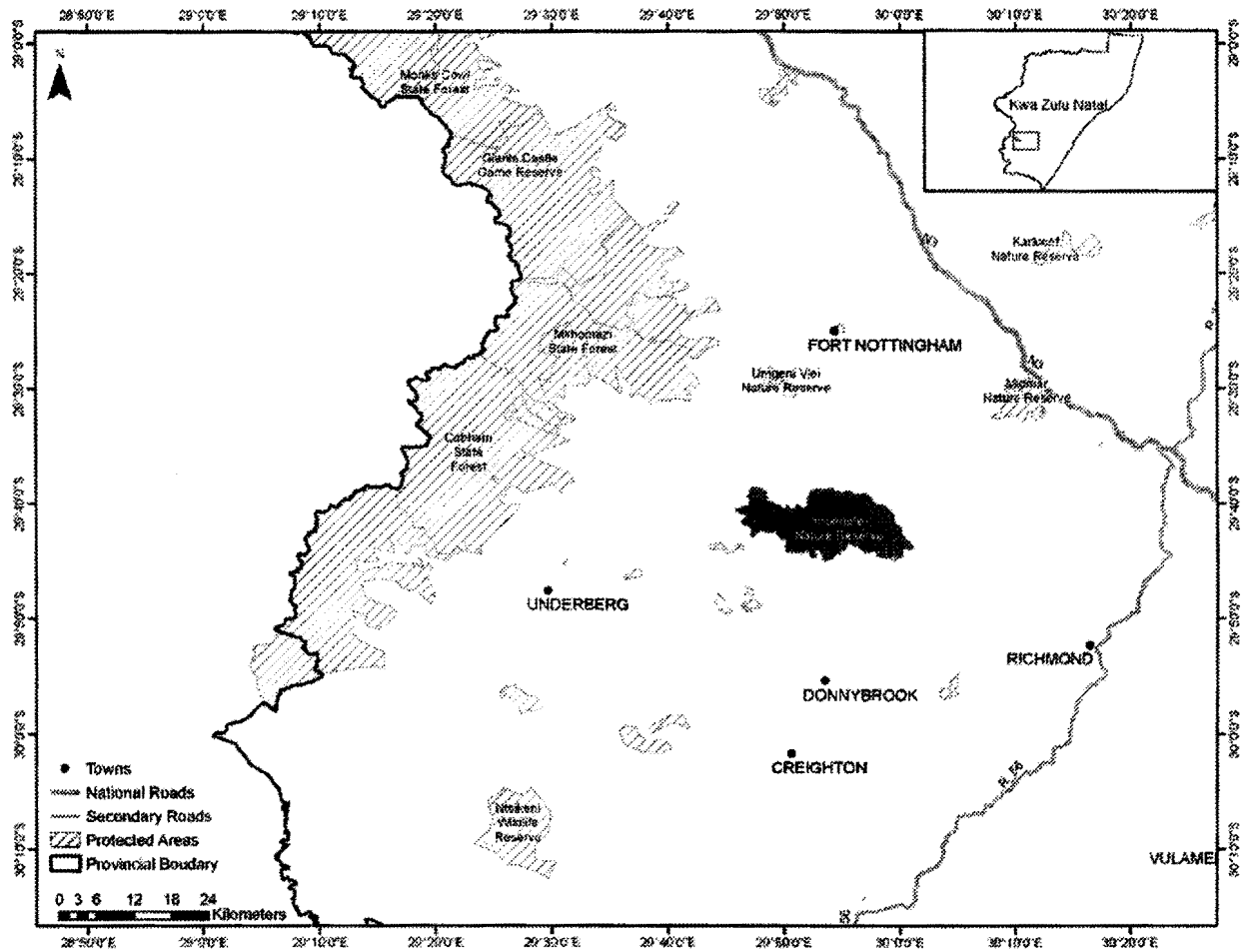
Key biodiversity features include one amphibian species, *Afrixalus spinifrons intermedius*; two bird species including Blue Swallow and Wattled Crane; one mammal species, the Oribi; six millipede species including *Centrobolus decoratus*, *Centrobolus rubricollis*, *Centrobolus tricolor*, *Doratogonus hoffmani*, *Doratogonus montanus* and *Doratogonus natalensis*; three plant species for example *Geranium natalense* and *Hesperantha woodii*; 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

Goodman, P.S. 2007. KwaZulu-Natal Terrestrial Conservation Plan (C-Plan), Version 4. Biodiversity Conservation Planning Division, Ezemvelo KZN Wildlife.



**Location of Impendle Lowlands Grasslands showing original area of ecosystem**

**165. Ixopo Surrounds (KZN 61)**

|  |   |
|--|---|
| Reference number                           | KZN 61  |
| Listed under Criterion                     | F   |
| Biome                                      | Grassland and Savanna   |
| Province                                   | KwaZulu-Natal   |
| Municipalities                             | Ingwe LM and Ubuhlebezwe LM   |
| Original area of ecosystem                 | 27 000 ha   |
| Remaining natural area of ecosystem (%)    | 15%   |
| 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**

Ixopo (3030AA) and Creighton (3029BB). Ecosystem delineated by contour lines, following river channels and ridge lines. It shares a boundary, delineated by a river, with the Eastern Creighton and Donnybrook threatened ecosystem (KZN 49)

**Description**

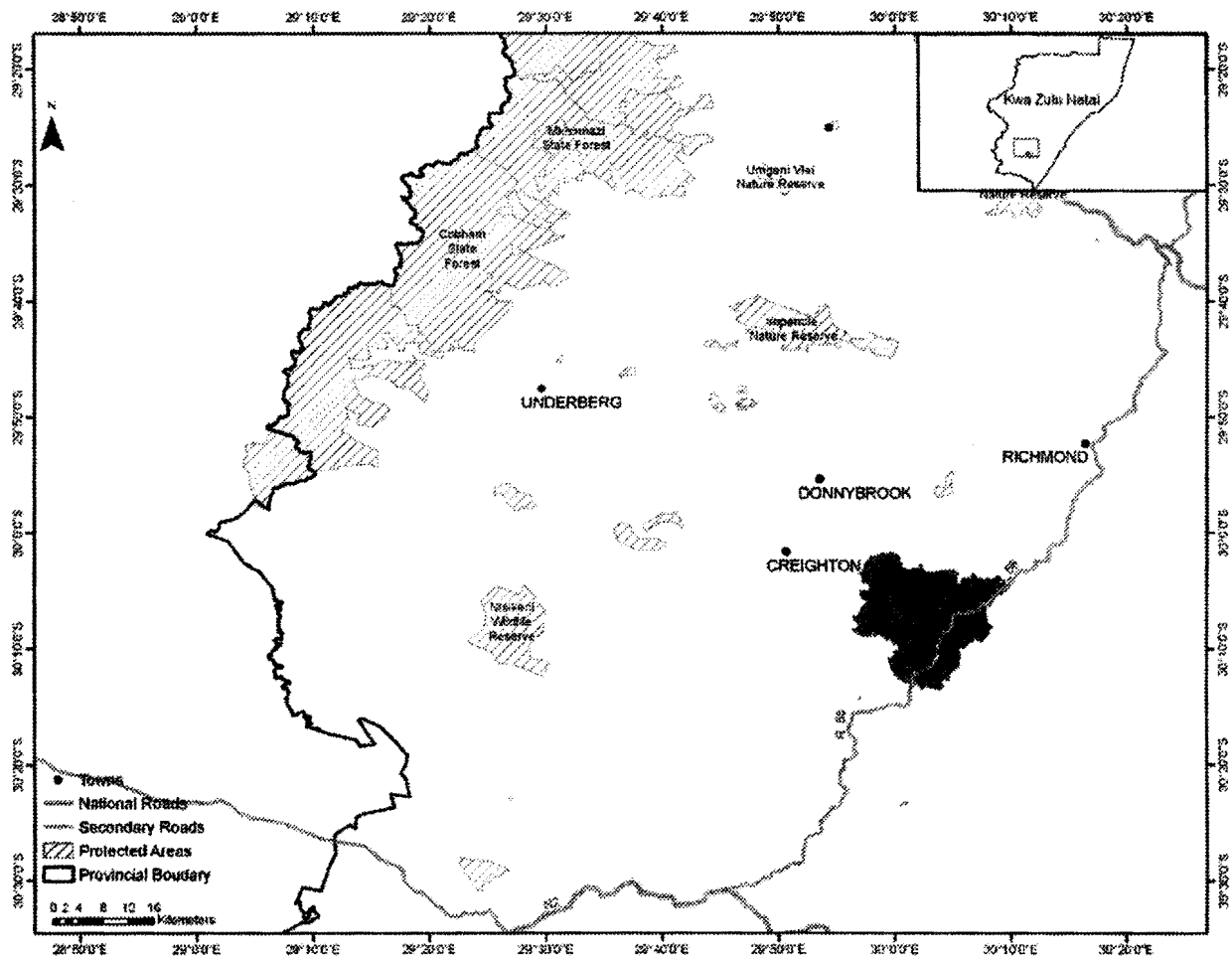
Key biodiversity features include one amphibian species, *Arthroleptella ngongoniensis*; two bird species including Blue Swallow and Wattled Crane; two millipede species including *Doratogonus montanus* and *Doratogonus natalensis*; three plant species for example *Senecio exuberans*; and four vegetation types including Ngongoni Veld, KwaZulu-Natal Hinterland Thornveld, Midlands Mistbelt Grassland and Southern KwaZulu-Natal Moist Grassland.

**Other Information**

The ecosystem is not protected.

**Reference**

Goodman, P.S. 2007. KwaZulu-Natal Terrestrial Conservation Plan (C-Plan), Version 4. Biodiversity Conservation Planning Division, Ezemvelo KZN Wildlife.



**Location of Ixopo Surrounds showing original area of ecosystem**

**166. Kaalrug Mountainlands (MP 17)**

|  |  |
|--|--|
| Reference number                           | MP 17  |
| Listed under Criterion                     | F  |
| Biome                                      | Grassland, Savanna and Forest  |
| Province                                   | Mpumalanga   |
| Municipality                               | Nkomazi LM   |
| Original area of ecosystem                 | 25 000 ha  |
| Remaining natural area of ecosystem (%)    | 86%  |
| Proportion of ecosystem protected          | 0% of original area  |
| Known number of species of special concern | 12 threatened or endemic plant and animal species including those listed below |

**Geographical location**

Mountain range between Kaalrug and Kappmuiden (2531BC, 2531CB, and 2531DA). Ecosystem is delineated by the drier, north-eastern end of the ancient Barberton Sequence. Landtypes were used to redefine the boundaries.

**Description**

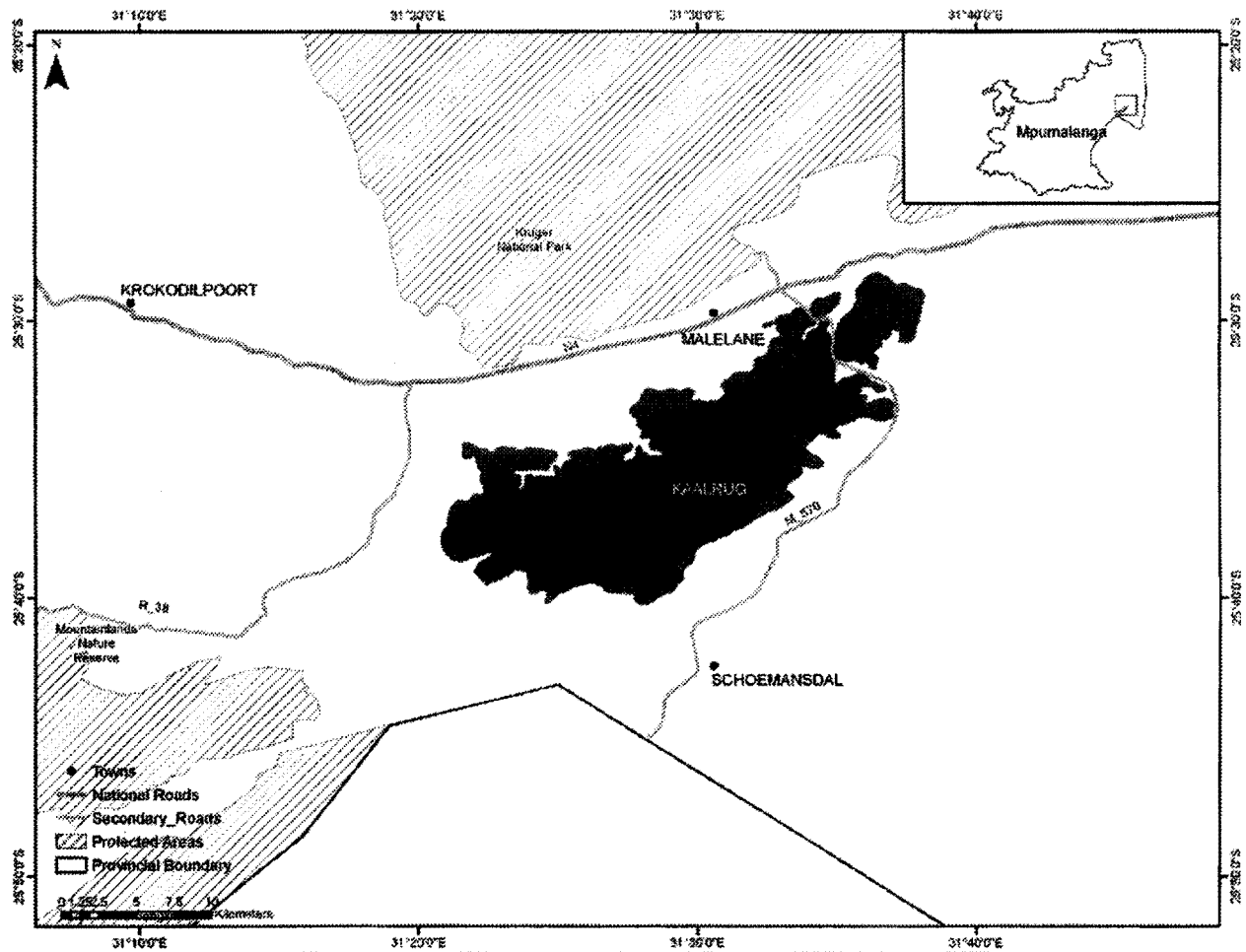
Key biodiversity features includes two mammal species including Short-eared Trident Bat and Natal Long-fingered Bat; three bird species including Saddle-billed Stork, Southern Ground Hornbill and Striped Flufftail; three reptile species including *Aspedilaps scutatus intermedius*, *Bradypodion transvaalense* and *Cordylus warreni barbertonensis*; four plant species including *Boophane disticha*, *Haworthia glaucophylla*, *Haworthia limifolia* var. *arcane* and *Warburgia salutaris*; and five vegetation types including Barberton Montane Grassland, Barberton Serpentine Sourveld; Kaalrug Mountain Bushveld, Granite Lowveld and Maputaland Scarp Forest. The ecosystem includes part of the Barberton Centre of Endemism. The ecosystem includes important sub-catchments; it provides an escarpment corridor; and is important for forest processes.

**Other information**

The ecosystem is not protected.

## Reference

Mpumalanga Tourism and Parks Agency & Department of Agriculture and Land Administration.  
2007. Mpumalanga Biodiversity Conservation Handbook.



**Location of Kaalrug Mountainlands showing original area of ecosystem**

**167. Kango Limestone Renosterveld (FRI 1)**

|  |   |
|--|---|
| Reference number                           | FRI 1   |
| Listed under Criterion                     | A1  |
| Biome                                      | Fynbos  |
| Province                                   | Western Cape  |
| Municipalities                             | Kannaland LM and Oudtshoorn LM  |
| Original area of ecosystem                 | 50 000 ha   |
| Remaining natural area of ecosystem (%)    | 51%   |
| Proportion of ecosystem protected          | < 1% of original area   |
| Known number of species of special concern | 6 Red Data plant species (EX, EW, CR, EN & VU excl VU D2) and 6 endemic plant species |

**Geographical location**

Northeastern regions of the Little Karoo, south of the Groot Swartberg from near Gamkapoort; north of Calitzdorp eastwards including Matjiesrivier and the Cango Caves area; with another band extending from upper Schoemanspoort and De Rust to north of the Stompdrift Dam.

**Description**

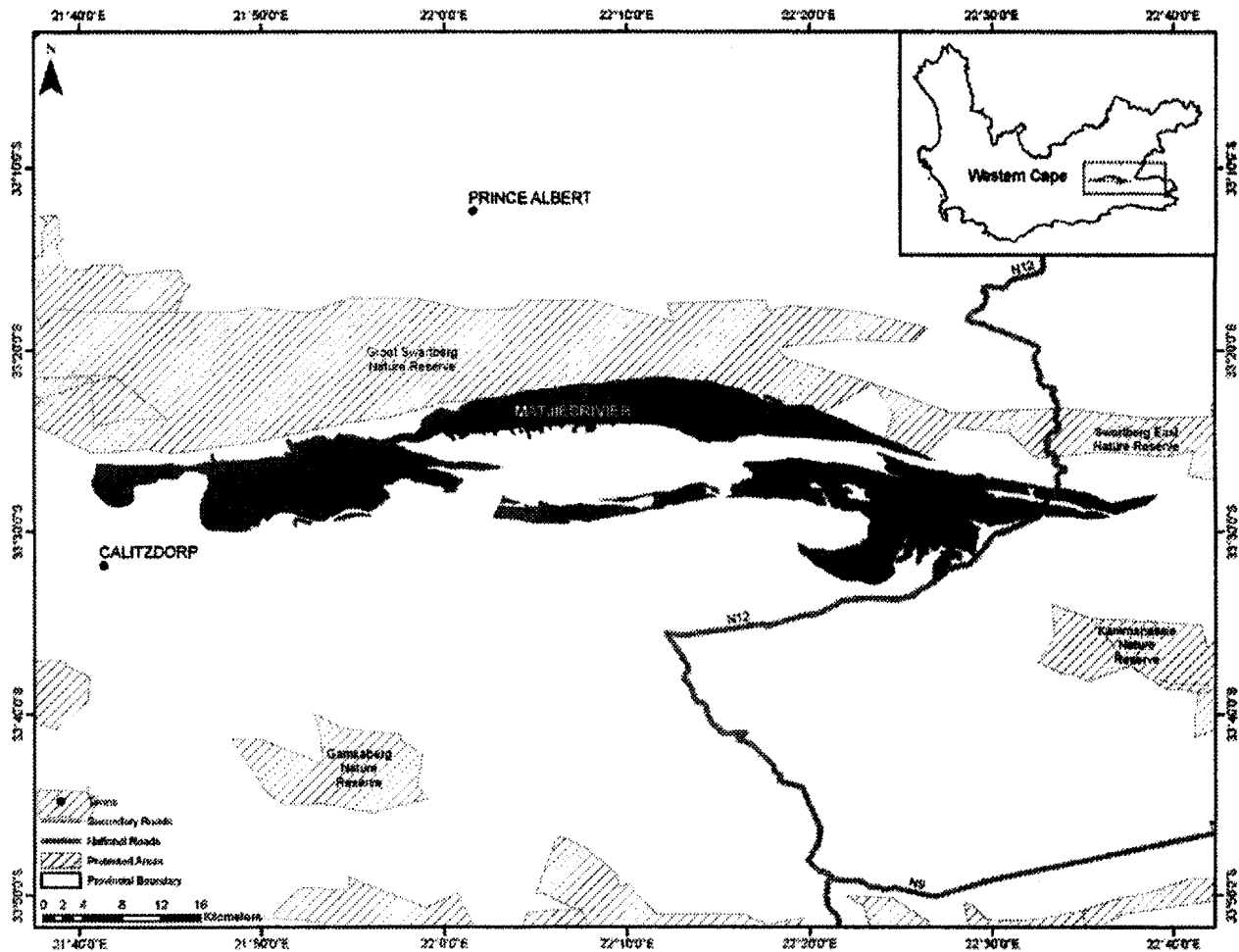
Low mountains and steep hills, supporting low, medium dense graminoid and medium to tall, dense, cupressoid-leaved shrubland, dominated by renosterbos and *Dodonaea*. The upper and wetter slopes are dominated by *Dodonaea viscosa* var. *angustifolia*, which although it is the visual signature of this ecosystem, extends onto neighbouring fynbos ecosystems. Frequent burning leads to a *Themeda* grassland. The early post-fire stages are characterised by a high diversity of herbaceous species, on limestone *Hermannia holosericea* is dominant in the early seral stages. A feature of the ecosystem is the marked lack of geophytes (only *Hypoxis villosa*). At least six endemic plant species and six Red Data List plant species occur in the ecosystem.

**Other information**

A very small portion of the ecosystem is protected in Groot Swartberg and Rietvlei.

## 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: 197. South African National Biodiversity Institute, Pretoria.



Location of Kango Limestone Renosterveld showing original area of ecosystem

**168. KaNgwane Montane Grassland (Gm 16)**

|  |  |
|--|--|
| Reference number                           | Gm 16  |
| Listed under Criterion                     | A1   |
| Biome                                      | Grassland  |
| Provinces                                  | Mpumalanga and KwaZulu-Natal   |
| Municipalities                             | eDumbe LM, UPhongolo LM, Albert Luthuli LM, Msukaligwa LM, Mkhondo LM and Highlands LM |
| Original area of ecosystem                 | 612 000 ha   |
| Remaining natural area of ecosystem (%)    | 59%  |
| Proportion of ecosystem protected          | < 1% of original area  |
| Known number of species of special concern | 4 endemic plant species  |

**Geographical location**

Occurs along the gentle slopes of the Escarpment, from the Phongolo Valley in the south, northwards to the Usutu Valley and to the uppermost Lomati Valley near Carolina, including the western grassland areas of Swaziland.

**Description**

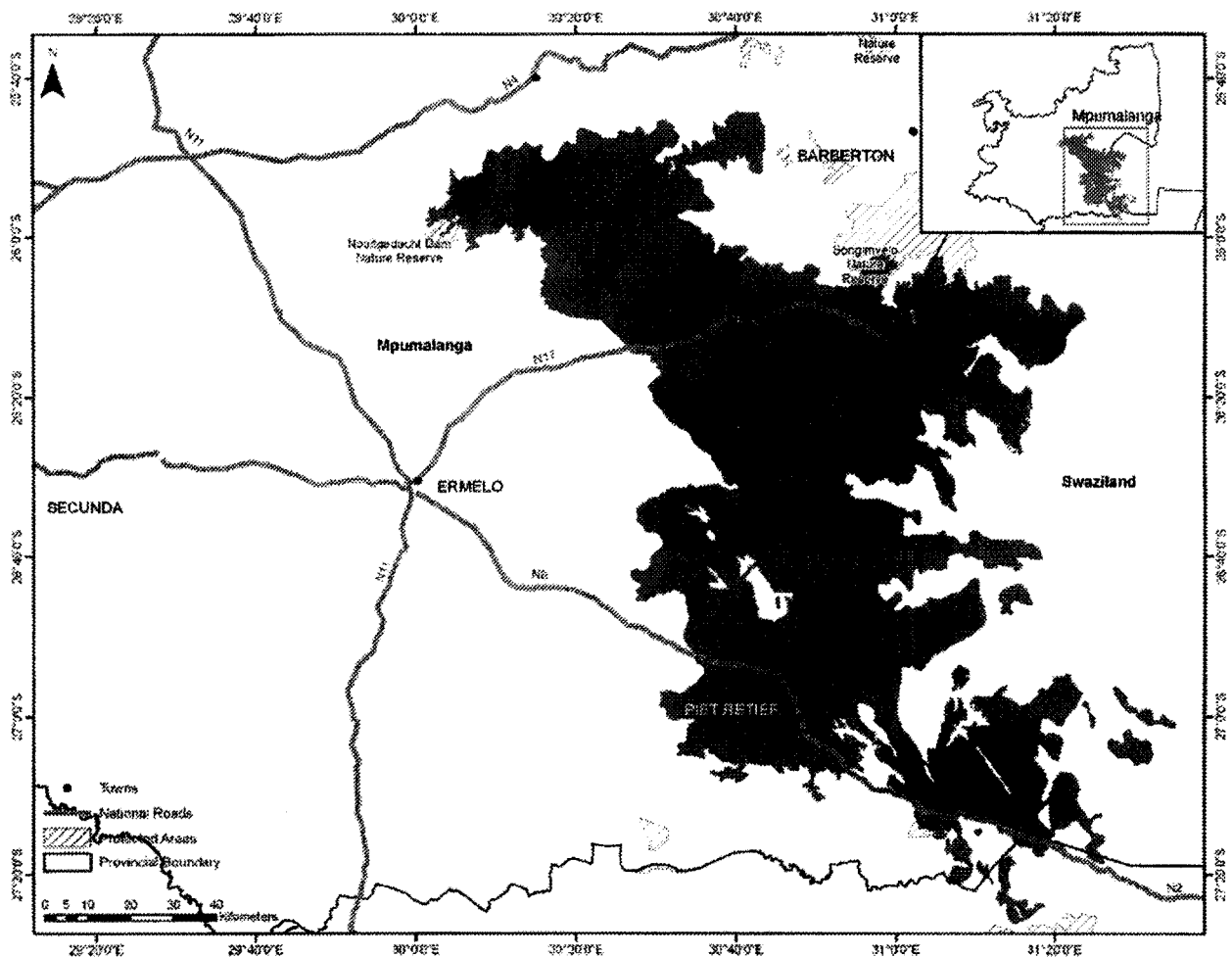
Largely comprised of undulating hills and plains that occur on the eastern edge of the Escarpment. The ecosystem is transitional between the Highveld and Escarpment and contains elements of both. The vegetation structure is comprised of a short closed grassland layer with many forbs, and a few scattered shrubs on the rocky outcrops. At least four endemic plant species occur in the ecosystem.

**Other information**

Less than 1% of the ecosystem is protected in the Malalotja Nature Reserve, Nooitgedacht Dam Nature Reserve and Songimvelo Nature Reserve. Small patches are found in a number of private conservation areas.

## 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*: 403-404. South African National Biodiversity Institute, Pretoria.



**Location of KaNgwane Montane Grassland showing original area of ecosystem**

**169. Kouebokkeveld Shale Fynbos (FFh 1)**

|  |   |
|--|---|
| Reference number                           | FFh 1   |
| Listed under Criterion                     | A1  |
| Biome                                      | Fynbos  |
| Province                                   | Western Cape  |
| Municipalities                             | Witzenberg LM and WCDMA02   |
| Original area of ecosystem                 | 43 000 ha   |
| Remaining natural area of ecosystem (%)    | 52%   |
| Proportion of ecosystem protected          | 0% of original area   |
| Known number of species of special concern | 9 Red Data plant species (EX, EW, CR, EN & VU excl VU D2) and 5 endemic plant species |

**Geographical location**

Koue Bokkeveld Valley from Waboomrivier and Rosendal (Koue Bokkeveld) to Gydo Pass (north of Ceres); edge of the Warm Bokkeveld from Gydo Pass along the lower slopes of the Gydoberg and Waboomberg to the upland plateau with Klondyke and Muilbergsvlakte; and Agter Witzenberg valleys, from Rosendal (Swartruggens) to Wakkerstroom.

**Description**

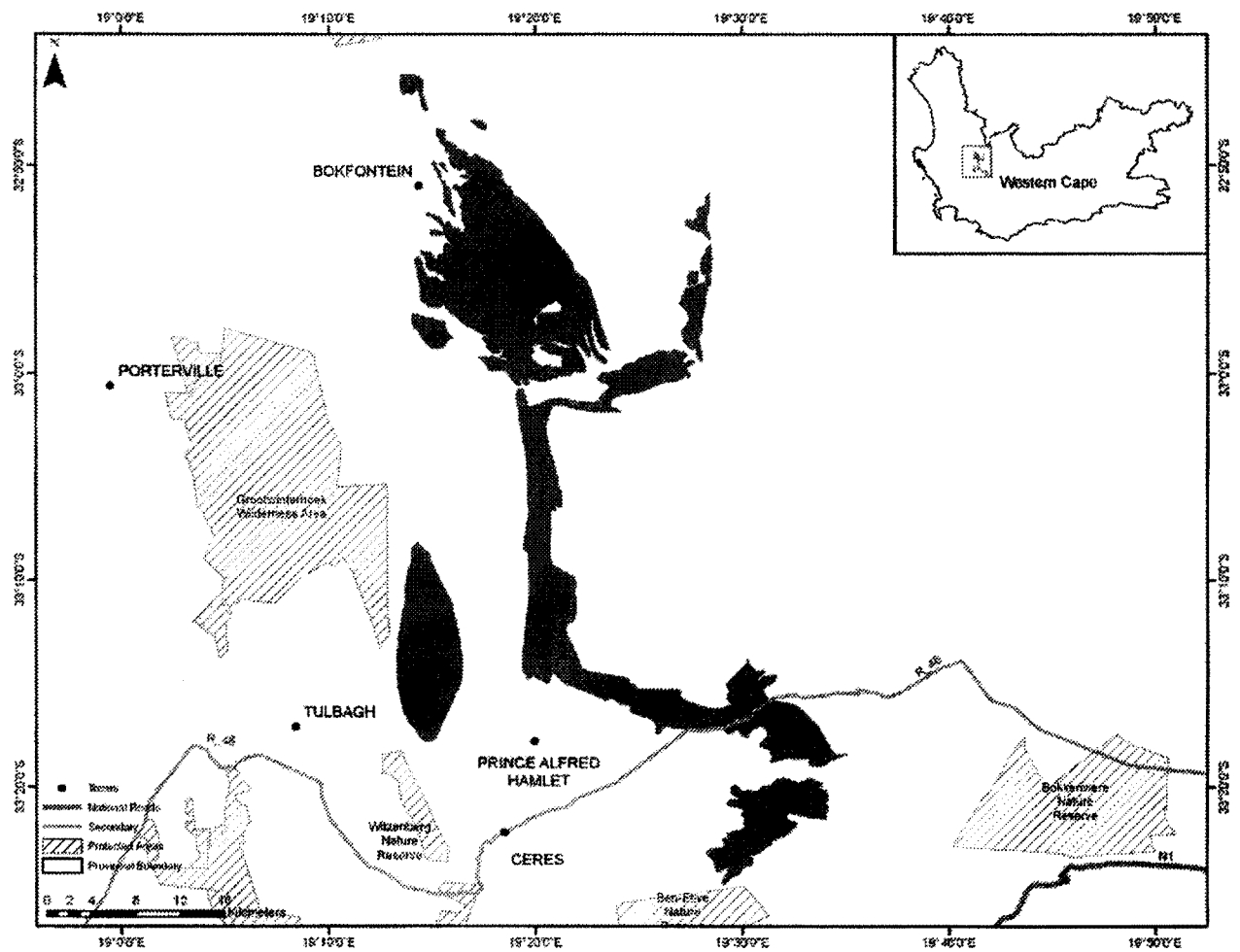
Slightly undulating plains and steep slopes in valleys between high mountains, supporting mainly moderately tall and dense proteoid shrubland. Asteraceous, proteoid and waboomveld fynbos shrublands are dominant, with fynbos restiolands occurring in the bottomlands. At least five endemic plant species and nine Red Data List plant species occur in the ecosystem.

**Other Information**

The ecosystem is not protected, but almost 20% is found in the Koue Bokkeveld (mountain catchment area) and private nature reserves such as Wakkerstroom and Opdrag.

**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: 146-147. South African National Biodiversity Institute, Pretoria.



**Location of Kouebokkeveld Shale Fynbos showing original area of ecosystem**

**170. Kromberg Plateau (KZN 62)**

|  |   |
|--|---|
| Reference number                           | KZN 62  |
| Listed under Criterion                     | F   |
| Biome                                      | Grassland, Savanna and Forest   |
| Province                                   | KwaZulu-Natal   |
| Municipality                               | Umvoti LM   |
| Original area of ecosystem                 | 5 000 ha  |
| Remaining natural area of ecosystem (%)    | 41%   |
| 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**

Nadi (2830DC ). Located principally on the Kromberg Plateau. Ecosystem delineated based on contours indicating the mid-slope position of the surrounding slopes.

**Description**

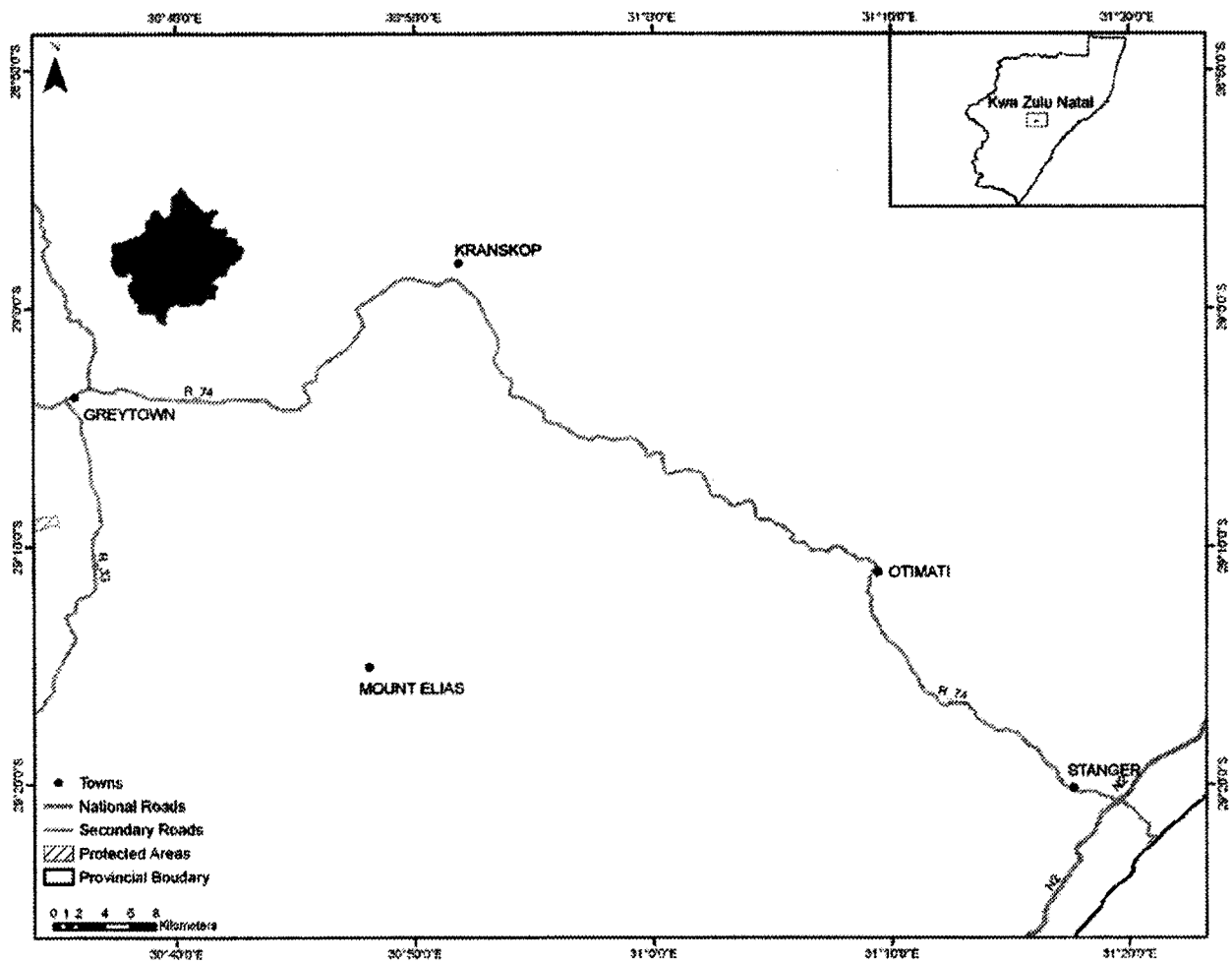
Key biodiversity features include one bird species, the Wattled Crane; two millipede species including *Doratogonus montanus* and *Doratogonus natalensis*; two plant species including *Geranium natalense* and *Senecio exuberans*; one reptile species including *Bradypodion tilburyi*; and three vegetation types including Eastern Mistbelt Forest, Midlands Mistbelt Grassland and Thukela Thornveld.

**Other Information**

The ecosystem is not protected.

**Reference**

Goodman, P.S. 2007. KwaZulu-Natal Terrestrial Conservation Plan (C-Plan), Version 4. Biodiversity Conservation Planning Division, Ezemvelo KZN Wildlife.



Location of Kromberg Plateau showing original area of ecosystem

**171. KwaMncane North Plateau (KZN 63)**

|  |   |
|--|---|
| Reference number                           | KZN 63  |
| Listed under Criterion                     | F   |
| Biome                                      | Grassland and Forest  |
| Province                                   | KwaZulu-Natal   |
| Municipalities                             | Impendle LM and The Msunduzi LM   |
| Original area of ecosystem                 | 7 000 ha  |
| Remaining natural area of ecosystem (%)    | 26%   |
| Proportion of ecosystem protected          | 0% of original area   |
| Known number of species of special concern | 9 threatened or endemic plant and animal species including those listed below |

**Geographical location**

Merrivale (2930CA). Ecosystem delineated by the crest of the slope, with the southern boundary of the ecosystem extending down the slope.

**Description**

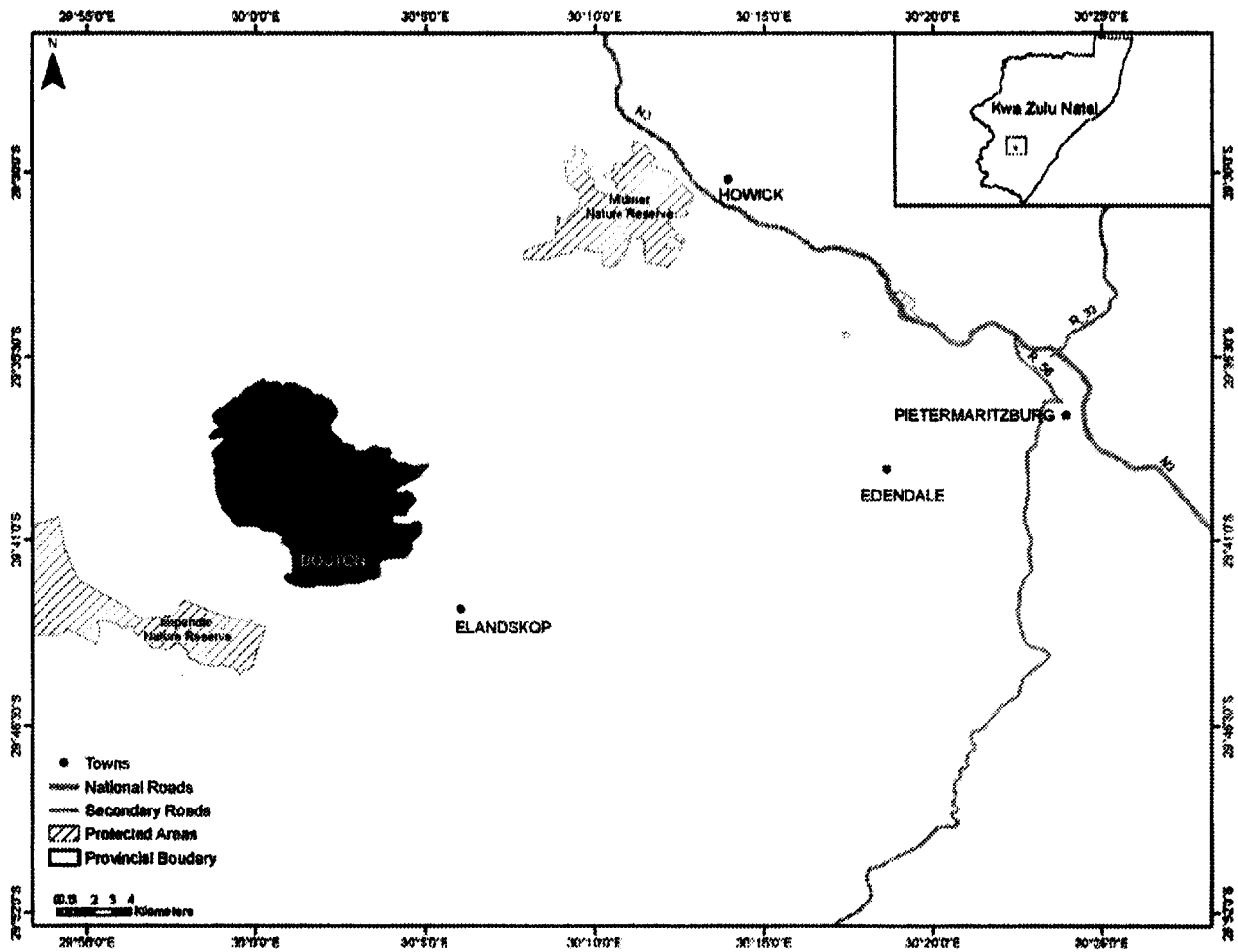
Key biodiversity features include one amphibian species, *Afrixalus spinifrons intermedius*; one mammal species, the Oribi; two millipede species including *Centrobolus tricolor* and *Doratogonus montanus*; three plant species including *Hesperantha woodii*, *Kniphofia buchananii* and *Senecio exuberans*; two reptile species including *Bradypodion bourquini* and *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**

Goodman, P.S. 2007. KwaZulu-Natal Terrestrial Conservation Plan (C-Plan), Version 4. Biodiversity Conservation Planning Division, Ezemvelo KZN Wildlife.



**Location of KwaMncane North Plateau showing original area of ecosystem**

**172. KwaZulu-Natal Coastal Belt (CB 3)**

|  |   |
|--|---|
| Reference number                           | CB 3  |
| Listed under Criterion                     | A1  |
| Biome                                      | Indian Ocean Coastal Belt   |
| Province                                   | KwaZulu-Natal   |
| Municipalities                             | Ethekwini MM, Vulamehlo LM, Umdoni LM, Umzumbe LM, Ezingoleni LM, Hibiscus Coast LM, Mkhambathini LM, uMhlathuze LM, uMlalazi LM, eNdondakusuka LM, KwaDukuza LM, Ndwedwe LM and Maphumulo LM |
| Original area of ecosystem                 | 633 000 ha  |
| Remaining natural area of ecosystem (%)    | 45%   |
| Proportion of ecosystem protected          | < 1% of original area   |
| Known number of species of special concern | 3 endemic plant species   |

**Geographical location**

Long, and in places broad, coastal strip along the KwaZulu-Natal coast from near Mtunzini in the north, past Durban to Margate and just short of Port Edward in the south.

**Description**

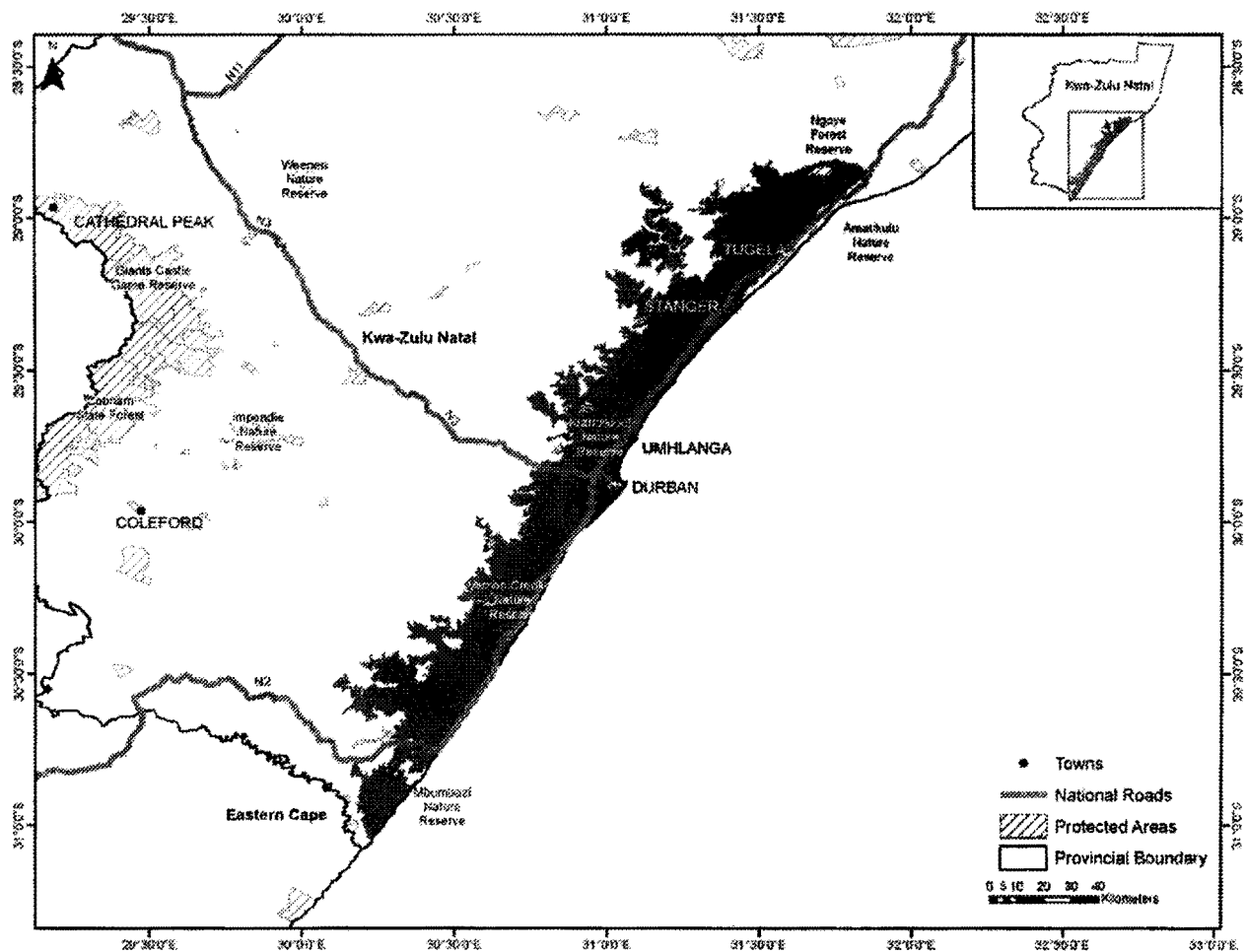
Highly dissected undulating coastal plains which presumably used to be covered to a great extent with various types of subtropical coastal forest. Some primary grassland dominated by *Themeda triandra* still occurs in hilly, high-rainfall areas where pressure from natural fire and grazing regimes prevailed. At present the KwaZulu-Natal Coastal Belt is affected by an intricate mosaic of very extensive sugarcane fields, timber plantations and coastal holiday resorts, with interspersed secondary *Aristida* grasslands, thickets and patches of coastal thornveld. At least three endemic plant species occur in the ecosystem.

**Other information**

Only a very small part of the ecosystem is protected in Ngoye, Mbumbazi and Vernon Crookes Nature Reserves.

## 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: 578-579. South African National Biodiversity Institute, Pretoria.



Location of KwaZulu-Natal Coastal Belt showing original area of ecosystem

**173. Lebombo Scarp Forest (KZN 64)**

|  |   |
|--|---|
| Reference number                           | KZN 64  |
| Listed under Criterion                     | F   |
| Biome                                      | Grassland, Savanna and Forest   |
| Province                                   | KwaZulu-Natal   |
| Municipality                               | Jozini LM   |
| Original area of ecosystem                 | 1 000 ha  |
| Remaining natural area of ecosystem (%)    | 92%   |
| Proportion of ecosystem protected          | 86% of original area  |
| Known number of species of special concern | 3 threatened or endemic plant and animal species including those listed below |

**Geographical location**

2732AC. Ecosystem includes the Hlatikulu Forest Reserve and extends southwards to include scarp forest outside of the reserve.

**Description**

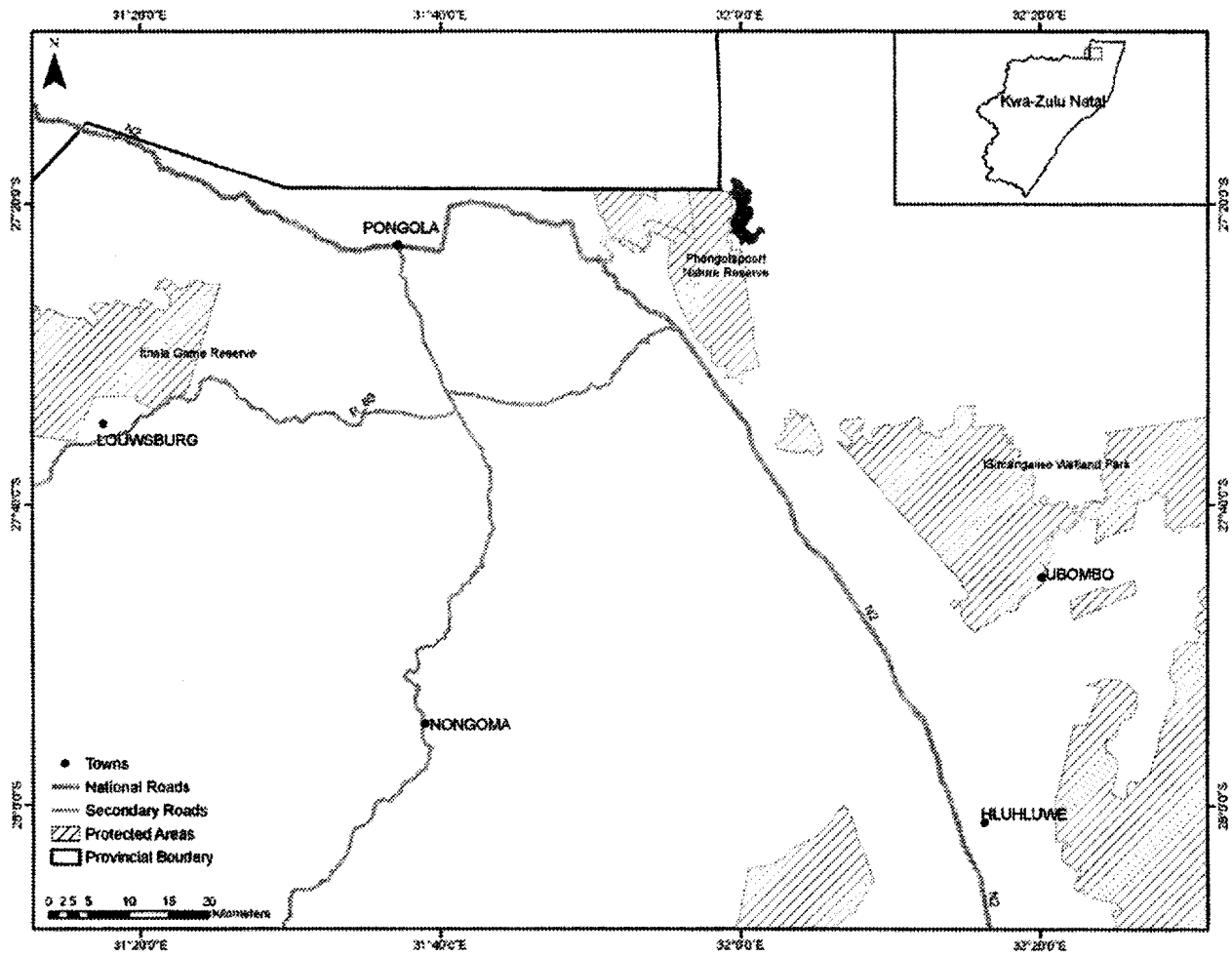
Key biodiversity features include two millipede species, *Centrobolus rugulosus* and *Doratogonus* major, one plant species, *Pachycarpus lebomboensis*; and three vegetation types including Eastern Scarp Forest, Lebombo Summit Sourveld and Southern Lebombo Bushveld.

**Other Information**

Approximately 86% of the ecosystem is protected in the Hlatikulu Forest Reserve.

**Reference**

Goodman, P.S. 2007. KwaZulu-Natal Terrestrial Conservation Plan (C-Plan), Version 4. Biodiversity Conservation Planning Division, Ezemvelo KZN Wildlife.



**Location of Lebombo Scarp Forest showing original area of ecosystem**

**174. Lebombo Summit Sourveld (SVI 17)**

|  |   |
|--|---|
| Reference number                           | SVI 17  |
| Listed under Criterion                     | A1  |
| Biome                                      | Savanna   |
| Provinces                                  | KwaZulu-Natal and Mpumalanga                      |
| Municipalities                             | UPhongolo LM, Jozini LM, KZN DMA27 and Nkomazi LM |
| Original area of ecosystem                 | 12 000 ha   |
| Remaining natural area of ecosystem (%)    | 55%   |
| Proportion of ecosystem protected          | 4% of original area                               |
| Known number of species of special concern | 2 endemic plant species                           |

**Geographical location**

Localised high points on the crest of the Lebombo Mountains from Mbuzini (Mpumalanga) in the north to the Ubombo area immediately north of Mkuze River Gorge in the south. Also occurs in Mozambique in a very limited area north of Namaacha.

**Description**

Ridge plateaus and adjacent slightly sloping flanks covered with open, tall, sour, wiry grasslands, often dotted with low bushes and solitary savanna trees. At least two endemic plant species occur in this ecosystem.

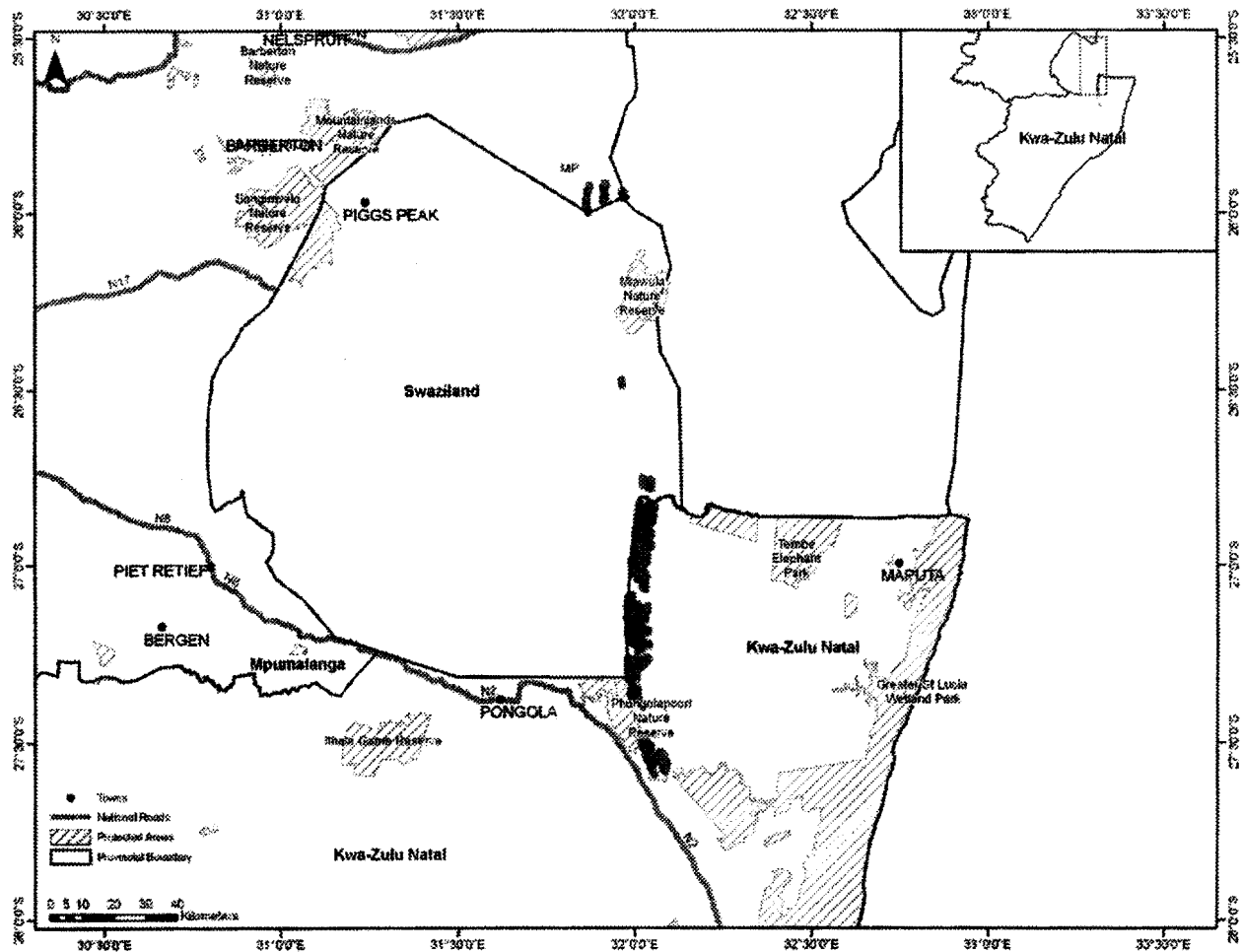
**Other Information**

Approximately 4% of the ecosystem is protected in the Mananga Cycad Colony, Ubombo Mountain, Phongolapoort and Hlatikulu Nature Reserves. A very small portion is also found in the private Masibekela Wetland 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: 502. South African National Biodiversity Institute, Pretoria.



**Location of Lebombo Summit Sourveld showing original area of ecosystem (area of ecosystem enlarged for visibility at this scale)**

**175. Legogote Sour Bushveld (SVI 9)**

|  |  |
|--|--|
| Reference number                           | SVI 9  |
| Listed under Criterion                     | A1   |
| Biome                                      | Savanna  |
| Provinces                                  | Mpumalanga and Limpopo   |
| Municipalities                             | Maruleng LM, Highlands LM, Thaba Chweu LM, Mbombela LM, Umjindi LM, Bushbuckridge LM and MPDMA32 |
| Original area of ecosystem                 | 354 000 ha   |
| Remaining natural area of ecosystem (%)    | 53%  |
| Proportion of ecosystem protected          | 2% of original area  |
| Known number of species of special concern | 1 endemic plant species  |

**Geographical location**

Lower eastern slopes and hills of the northeastern escarpment from Mariepskop in the north through White River to the Nelspruit area extending westwards up the valleys of the Crocodile, Elands and Houtbosloop Rivers and terminating in the south in the Barberton area.

**Description**

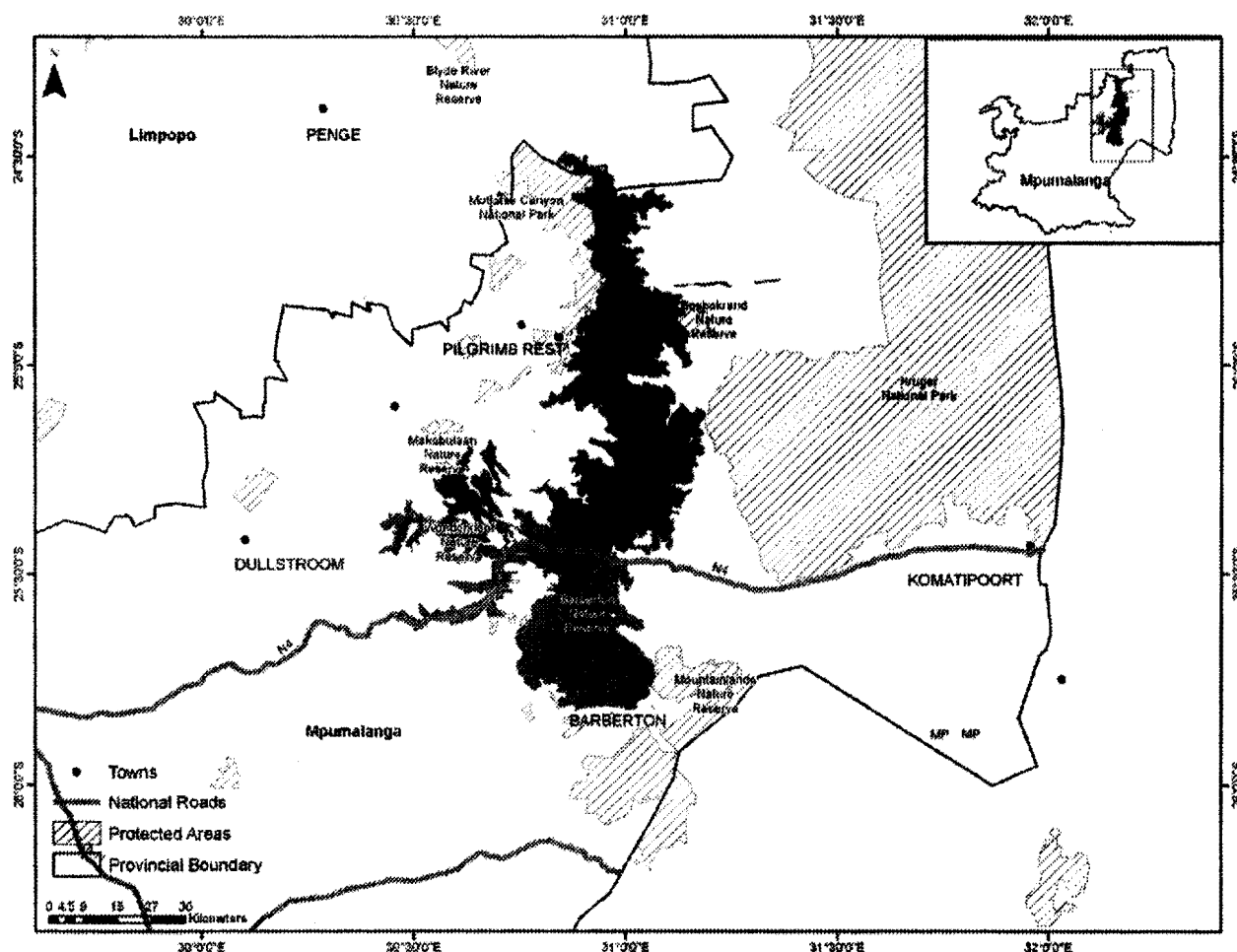
Gently to moderately sloping upper pediment slopes with dense woodland including many medium to large shrubs often dominated by *Parinari curatellifolia* and *Bauhinia galpinii* with *Hyperthelia dissoluta* and *Panicum maximum* in the undergrowth. Short thicket dominated by *Acacia ataxacantha* occurs on less rocky sites. Exposed granite outcrops have low vegetation cover, typically with *Englerophytum magalismontanum*, *Aloe petricola* and *Myrothamnus flabellifolia*. At least one endemic plant species occurs in the ecosystem.

**Other Information**

Approximately 2% of the ecosystem protected mainly in the Bosbokrand and Barberton Nature Reserves and a further 2% is found in private reserves including the Mbesan and Kaapsehoop Reserves and Mondi Cycad 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: 496-497. South African National Biodiversity Institute, Pretoria.



Location of Legogote Sour Bushveld showing original area of ecosystem

**176. Leipoldville Sand Fynbos (FFd 2)**

|  |   |
|--|---|
| Reference number                           | FFd 2   |
| Listed under criteria                      | A1 and D1   |
| Biome                                      | Fynbos  |
| Province                                   | Western Cape  |
| Municipalities                             | Matzikama LM, Cederberg LM, Bergrivier LM and WCDMA01                                   |
| Original area of ecosystem                 | 276 000 ha  |
| Remaining natural area of ecosystem (%)    | 47%   |
| Proportion of ecosystem protected          | 0% of original area   |
| Known number of species of special concern | 45 Red Data plant species (EX, EW, CR, EN & VU excl VU D2) and 33 endemic plant species |

**Geographical location**

On the coastal plains on either side of the Olifants River to Aurora and extending inland to the foot of the Graafwater Mountains and Piketberg. It also occurs in the Olifants River Valley from the Bulshoek Dam to The Baths (Keerom), with a gap between Klawer Vlei and Sandkop. Outliers are found scattered in the Swartveld from Het Kruis to the vicinity of Porterville.

**Description**

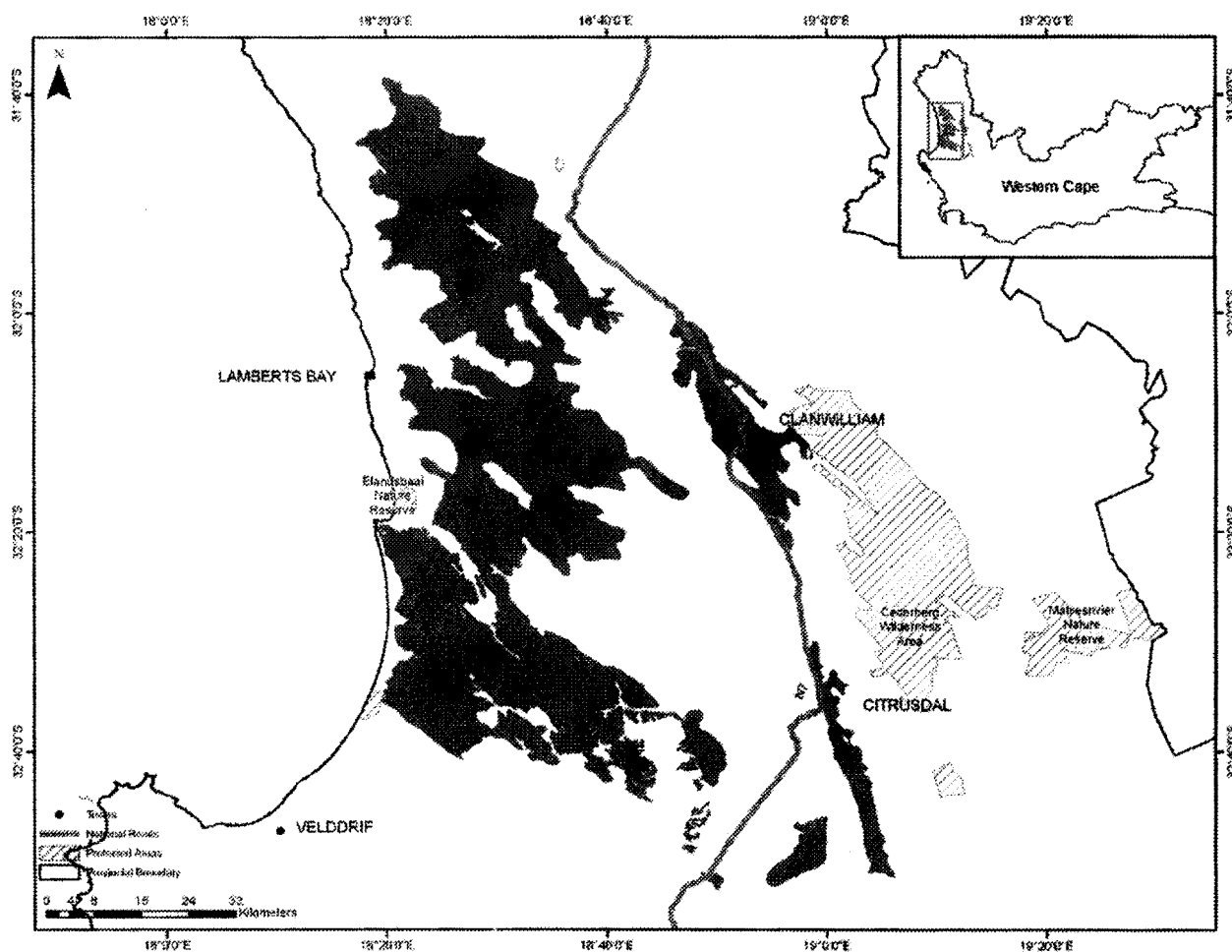
Plains, slightly rolling in places, covered with shrublands with an upper open stratum of emergent, 2–3 m tall shrubs in clumps. The vegetation matrix is formed by fairly dense, 1–1.2 m tall restiolands, with numerous medium tall to low shrubs scattered in between. Understorey with a conspicuous winter to spring herbaceous complement of annuals and geophytes occurs in years with good rain. Structurally, these are mainly restioid and asteraceous fynbos types, with localised patches of proteoid fynbos also present. This is a dry form of sand fynbos, lacking Ericaceae and with proteoid elements relatively rare. Sward communities, associated with grazing, are dominated by *Aizoon canariense* and *Tribolium echinatum*. At its northern (arid) boundary the sand fynbos structure becomes very diffuse and is progressively replaced by strandveld. At least 33 endemic plant species and 45 Red Data List 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: 137-138. South African National Biodiversity Institute, Pretoria.



**Location of Leipoldtville Sand Fynbos showing original area of ecosystem**

**177. Loskop Mountainlands (MP 18)**

|  |   |
|--|---|
| Reference number                           | MP 18   |
| Listed under Criterion                     | F   |
| Biome                                      | Grassland and Savanna   |
| Province                                   | Mpumalanga  |
| Municipalities                             | Emalahleni LM, Steve Tshwete LM and Thembisile LM                             |
| Original area of ecosystem                 | 46 000 ha   |
| Remaining natural area of ecosystem (%)    | 93%   |
| Proportion of ecosystem protected          | 3% of original area   |
| Known number of species of special concern | 8 threatened or endemic plant and animal species including those listed below |

**Geographical location**

Directly south-west of Loskop Dam Nature Reserve (2529AD, 2529CA, 2529CB and 2529CD). Rugged sandstone mountain bushveld delineated using landtypes, critical supporting catchments and the presence of important plant species.

**Description**

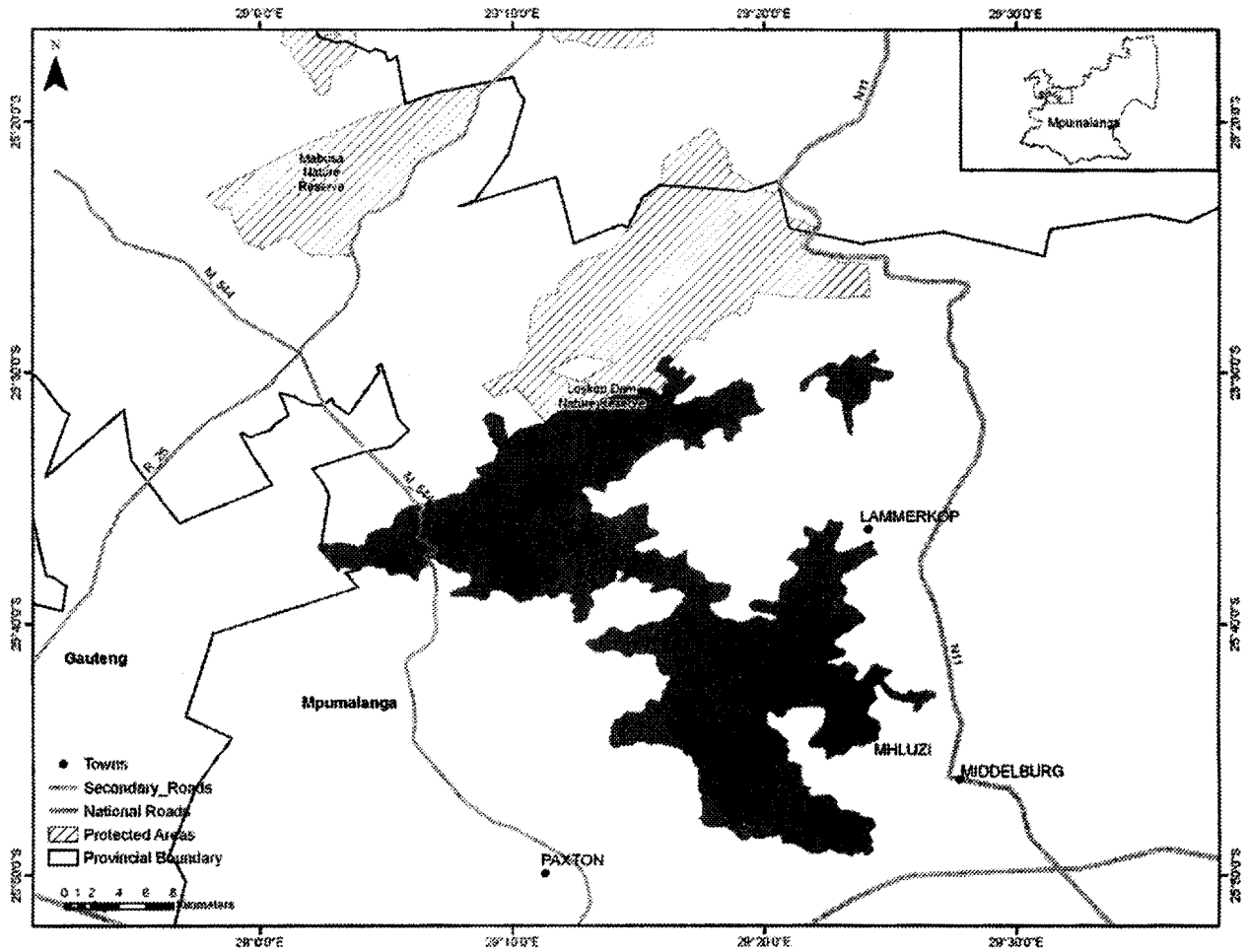
Key biodiversity features include three bird species including Blue Korhaan, Southern Ground Hornbill and Wattled Crane; one amphibian, *Pyxicephalus adspersus*; four plant species for example *Elephantorrhiza obliqua* var. *glabra* and *Frithia humilis*; and two vegetation types including Loskop Mountain Bushveld and Rand Highveld Grassland. The ecosystem includes important sub-catchments; it is an important escarpment corridor; and is important for grassland processes.

**Other information**

Approximately 3% of the ecosystem is protected in the Loskop Dam Nature Reserve.

**Reference**

Mpumalanga Tourism and Parks Agency & Department of Agriculture and Land Administration. 2007. Mpumalanga Biodiversity Conservation Handbook.



Location of Loskop Mountainlands showing original area of ecosystem

**178. Louwsberg Mistbelt Grassland (KZN 65)**

|  |   |
|--|---|
| Reference number                           | KZN 65  |
| Listed under Criterion                     | F   |
| Biome                                      | Grassland and Forest  |
| Province                                   | KwaZulu-Natal   |
| Municipalities                             | UPhongolo LM and Abaqulusi LM   |
| Original area of ecosystem                 | 5 000 ha  |
| Remaining natural area of ecosystem (%)    | 35%   |
| Proportion of ecosystem protected          | 7% of original area   |
| Known number of species of special concern | 3 threatened or endemic plant and animal species including those listed below |

**Geographical location**

Louwsberg (2731CB). Ecosystem delineated by the Northern Zululand Mistbelt Grassland.

**Description**

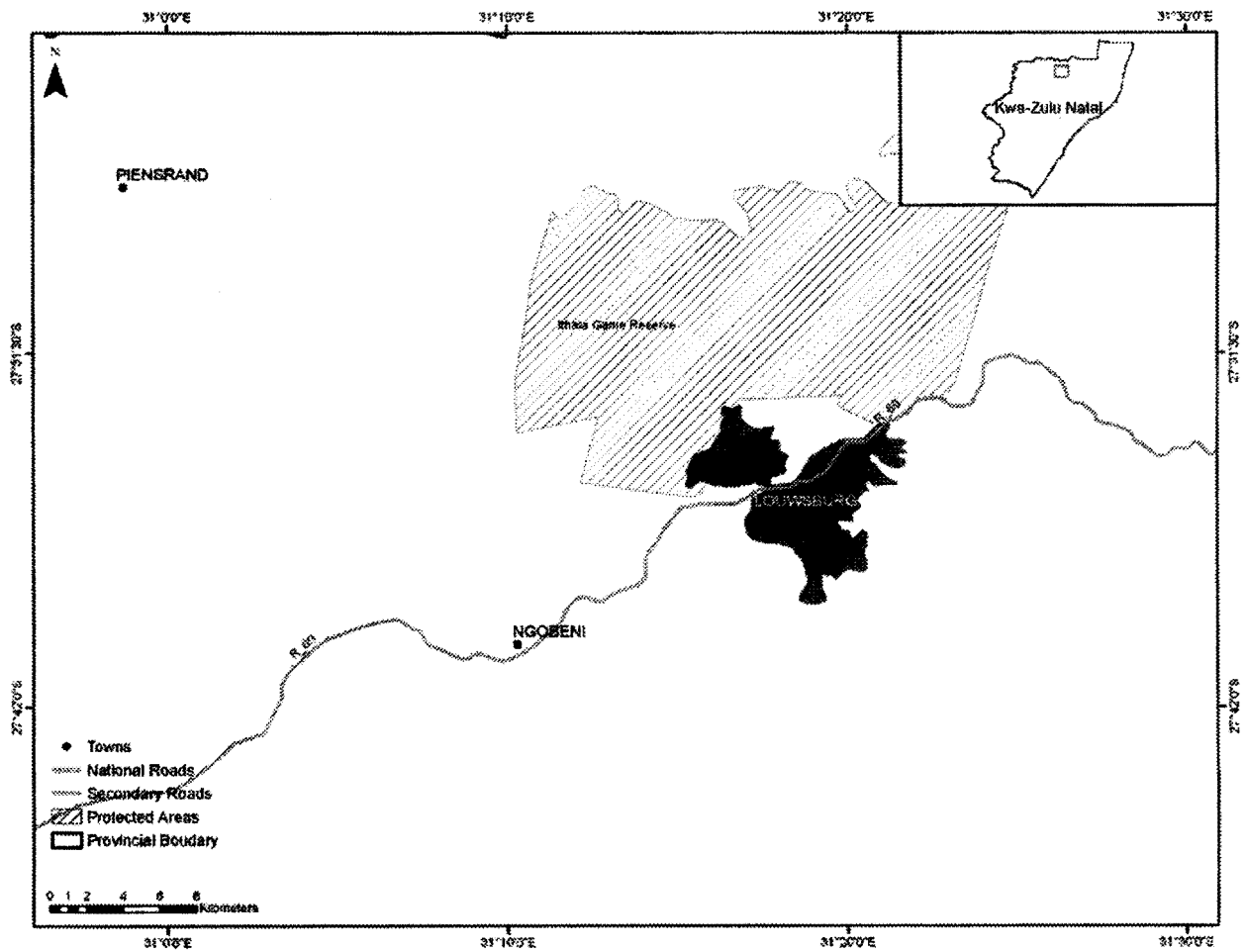
Key biodiversity features include one millipede species, *Dorotogonus natalensis*; two plant species including *Brachystelma ngomense* and *Helichrysum ingomense*; and three vegetation types including Eastern Mistbelt Forest, Northern Zululand Mistbelt Grassland and Paulpietersburg Moist Grassland.

**Other information**

Approximately 7% of the ecosystem is protected in the Ithala Game Reserve.

**Reference**

Goodman, P.S. 2007. KwaZulu-Natal Terrestrial Conservation Plan (C-Plan), Version 4. Biodiversity Conservation Planning Division, Ezemvelo KZN Wildlife.



**Location of Louwsberg Mistbelt Grassland showing original area of ecosystem**

**179. Low Escarpment Mistbelt Forest (FOz II4)**

|  |   |
|--|---|
| Reference number                           | FOz II4   |
| Listed under Criterion                     | A2  |
| Biome                                      | Forest  |
| Provinces                                  | Mpumalanga and KwaZulu-Natal  |
| Municipalities                             | Maluti a Phofung LM, Phumelela LM, Emnambithi/Ladysmith LM, Okhahlamba LM, Endumeni LM, Newcastle LM, Utrecht LM, Dannhauser LM, eDumbe LM, Abaqulusi LM, Ulundi LM, Mkhondo LM and Seme LM |
| Original area of ecosystem                 | Data not available  |
| Remaining natural area of ecosystem        | 5 000 ha  |
| Proportion of ecosystem protected          | 15% of remaining area   |
| Known number of species of special concern |   |

**Geographical location**

Low Escarpment Mistbelt Forests (previously the Northern KwaZulu-Natal Mistbelt Forests or Eastern Midlands Forests) are found along the low Drakensberg escarpment between Van Rheenen's Pass (near Harrismith) and Piet Retief as well as in southern Mpumalanga and northern KwaZulu-Natal (Vryheid region). The ecosystem forms a widely scattered archipelago of isolated forest patches.

**Description**

High, multi-layered forest (approximately 15–20 m tall), comprising two layers of trees, a full, dense understorey and a very well developed herb layer. Species are predominantly single stemmed. These forests show a mix of coarse grain, canopy gap or disturbance driven dynamics and fine-grained, regeneration characteristics. These forests are usually dominated by tall-grown trees such as *Podocarpus latifolius*, *P. falcatus*, and *Dombeya burgessiae* or by low-grown types such as *Xymalos monospora*, *Greyia sutherlandii*, and *Canthium mundianum*. The ecosystem is relatively species-rich. A few forests, such as Ngome Forest, are exceptionally rich in orchids. An important characteristic differentiating this ecosystem from the Eastern Mistbelt Forests is the presence of many elements typical of Scarp Forests.



**180. Lowveld Riverine Forest (FOa 1)**

|  |  |
|--|--|
| Reference number                           | FOa 1  |
| Listed using Criterion                     | A2   |
| Biome                                      | Forest   |
| Provinces                                  | KwaZulu-Natal, Mpumalanga and Limpopo  |
| Municipalities                             | Umhlabuyalingana LM, Jozini LM, The Big 5<br>False Bay LM, Maruleng LM, Musina LM,<br>Mutale LM, Thulamela LM, Lephalale LM,<br>Thaba Chweu LM, Bushbuckridge LM,<br>KZNDMA27 and LIMDMA33 |
| Original area of ecosystem                 | Data not available   |
| Remaining natural area of ecosystem        | 11 000 ha  |
| Proportion of ecosystem protected          | 67% of remaining area  |
| Known number of species of special concern | Data not available   |

**Geographical location**

This typically hydro-pedologic azonal forest occurs imbedded within the Lowveld areas of the Savanna Biome, where it is found on alluvia of rivers (from the Limpopo River in the north to the Amatigulu River in Zululand in the south). The largest and best-developed patches are found in Maputaland and in the Mpumalanga and Limpopo Lowveld. Impoverished, albeit floristically interesting, riparian forests occur on low slopes and at the foot of the Northern Escarpment bordering the Lowveld in Mpumalanga and Limpopo Province.

**Description**

Tall, gallery forests fringing stretches of major rivers on nutrient-laden sediments brought by summer floods. This forest provides a unique habitat and has high biodiversity value. These forests provide an important food source (browse and fig trees) and serves as a heat avoidance microhabitat for savanna dwelling animals and shelter for riverine animals. An important ecosystem function is provided by the root system, which helps to bind soil promoting stream bank stabilisation and preventing erosion. There is no published data specifically devoted to species richness and species turnover patterns in these forests.

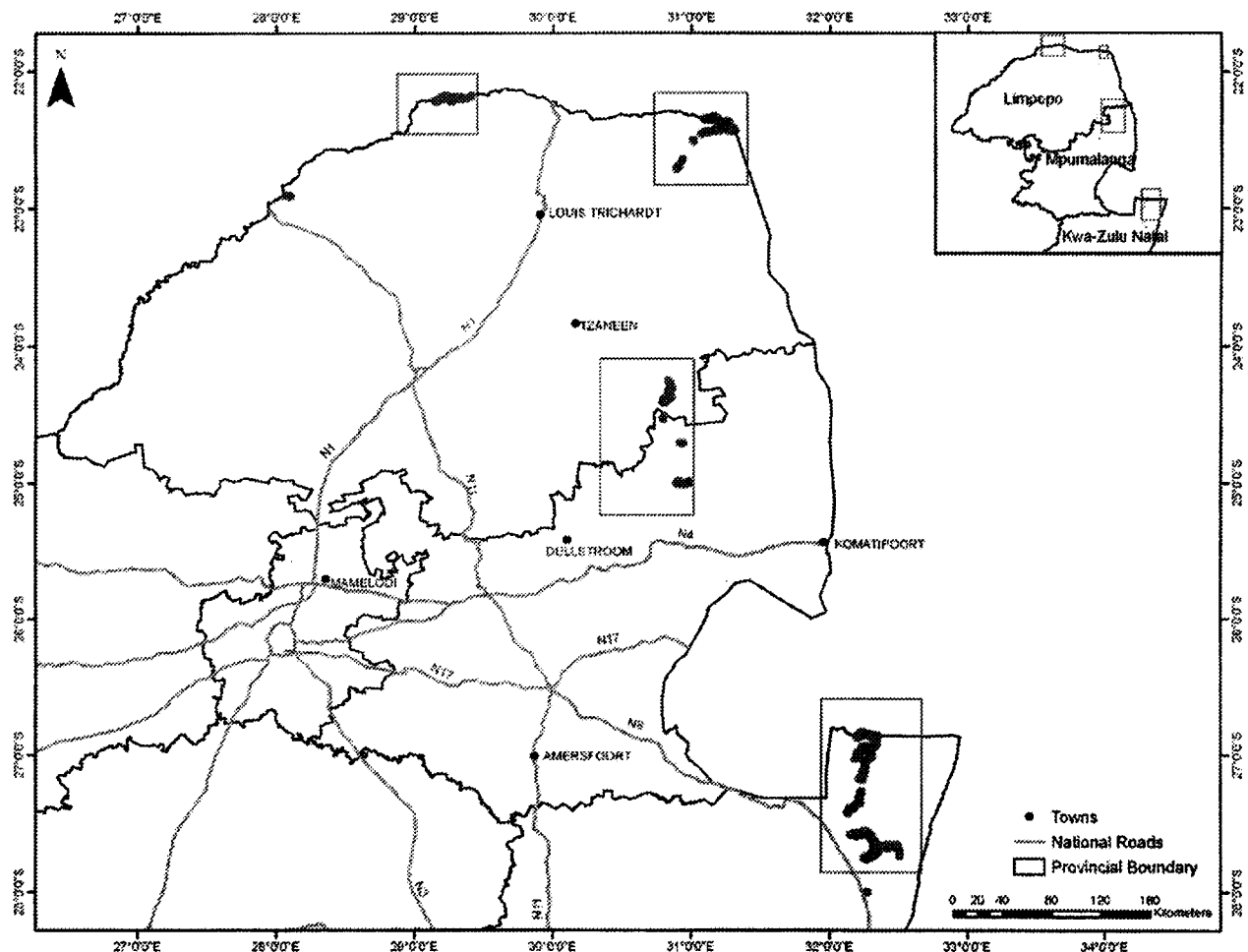
### Other information

Approximately 67% of the ecosystem is protected in Kruger and Mapungubwe National Parks, isiMangaliso Wetland Park, Ndumo and Mkuze Game Reserves, Mlawula and Blyde River Canyon National Park.

### 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*: 607. 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 Lowveld Riverine Forest (area of ecosystem enlarged for visibility at this scale)

**181. Mafikeng Bushveld (SVk 1)**

|  |   |
|--|---|
| Reference number                           | SVk 1   |
| Listed under Criterion                     | A1  |
| Biome                                      | Savanna   |
| Province                                   | North West  |
| Municipalities                             | Moshaweng LM, Ratlou LM, Tswaing LM,<br>Mafikeng LM, Ramotshere Moiloa LM,<br>Kagisano LM, Naledi LM, Greater Taung LM<br>and Molopo LM |
| Original area of ecosystem                 | 1 438 000 ha  |
| Remaining natural area of ecosystem (%)    | 60%   |
| Proportion of ecosystem protected          | 0% of original area   |
| Known number of species of special concern |   |

**Geographical location**

West of Mafikeng and south of the Botswana border westwards to around Vergeleë, southwards to Plet Plessis and Setlagole.

**Description**

Well developed tree and shrub layers, dense stands of *Terminalia sericea*, *Acacia luedde-ritzii* and *A. erioloba* in certain areas. Shrubs include *A. karroo*, *A. hebeclada* and *A. mellifera*, *Dichrostachys cinerea*, *Grewia flava*, *G. retinervis*, *Rhus tenuinervis* and *Ziziphus mucronata*. Grass layer is also well developed.

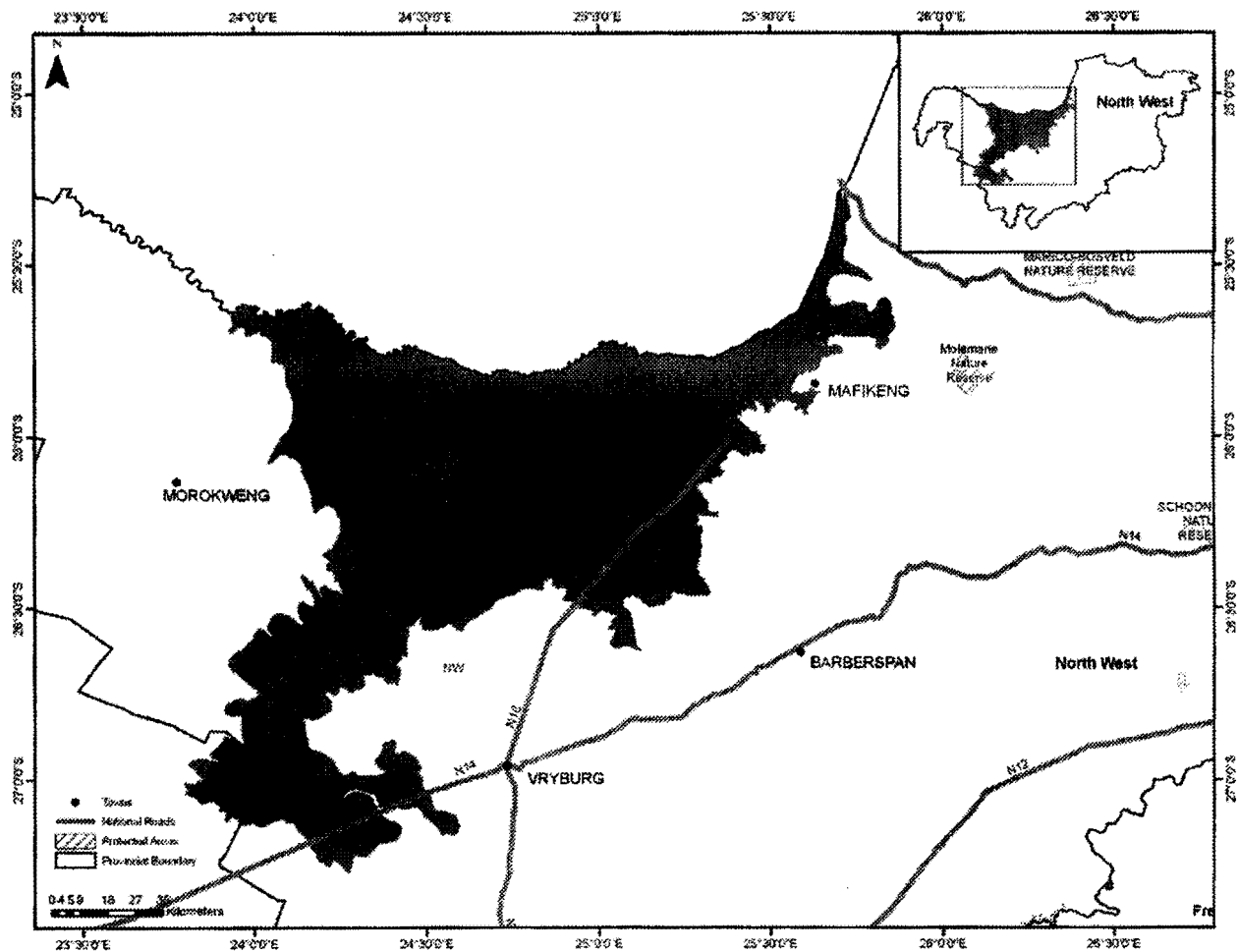
**Other information**

The ecosystem is not protected but a very small area is found in the Mmabatho Recreation Area.

**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: 514-515. South African National Biodiversity Institute, Pretoria.



**Location of Mafikeng Bushveld showing original area of ecosystem**

**182. Magaliesberg Hekpoort Mountain Bushveld (GP 16)**

|  |   |
|--|---|
| Reference number                           | GP 16   |
| Listed under Criterion                     | F   |
| Biome                                      | Grassland, Savanna and Forest   |
| Province                                   | Gauteng   |
| Municipality                               | Mogale City LM  |
| Original area of ecosystem                 | 6 000 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**

West Rand of Gauteng including Hekpoort (2527DC). Ecosystem delineated by the Magaliesberg ridge system and associated koppies.

**Description**

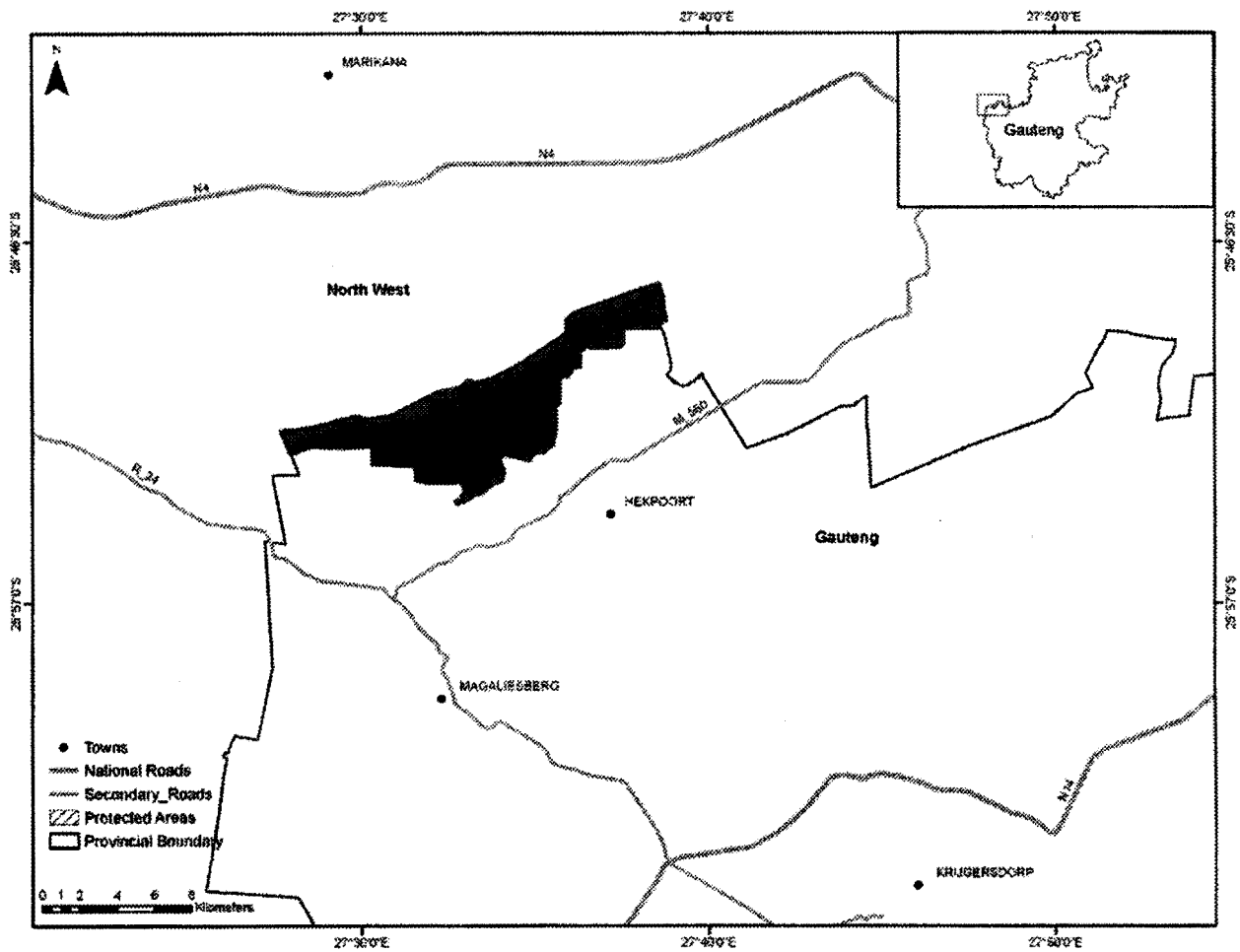
Key biodiversity features include Red or Orange Listed plants for example *Aloe peglerae*, *Frithia pulchra*; Red or Orange Listed birds for example Cape Vulture; and four vegetation types including Gold Reef Mountain Bushveld, Moot Plains Bushveld, Northern Afrotropical Forest, and Waterberg-Magaliesberg Summit Sourveld. Various drainage lines or non-perennial rivers are key features in the ecosystem.

**Other information**

The ecosystem is not protected.

**Reference**

Gauteng C-Plan Version 2. 2006. Gauteng Department of Agriculture, Conservation and Environment.



**Location of Magaliesberg Hekpoort Mountain Bushveld showing original area of ecosystem**

**183. Majuba Mistbelt Forest and Moist Grassland (KZN 66)**

|  |   |
|--|---|
| Reference number                           | KZN 66  |
| Listed under Criterion                     | F   |
| Biome                                      | Grassland and Forest  |
| Province                                   | KwaZulu-Natal   |
| Municipality                               | Newcastle LM  |
| Original area of ecosystem                 | 4 000 ha  |
| Remaining natural area of ecosystem (%)    | 68%   |
| Proportion of ecosystem protected          | 0% of original area   |
| Known number of species of special concern | 2 threatened or endemic plant species<br>including those listed below |

**Geographical location**

Newcastle North (2729DB) and Volksrust (2729BD). Ecosystem delineated by the Ouhoutspruit River in the north west and the Hleleqwa River in the south west.

**Description**

Key biodiversity features include two plant species including *Holothrix majubensis* and *Selago longicalyx*; and three vegetation types including Amersfoort Highveld Clay Grassland, Low Escarpment Moist Grassland and Eastern Mistbelt Forest.

**Other information**

The ecosystem is not protected.

**Reference**

Goodman, P.S. 2007. KwaZulu-Natal Terrestrial Conservation Plan (C-Plan), Version 4. Biodiversity Conservation Planning Division, Ezemvelo KZN Wildlife.