

Terrestrial Animal Species Compliance Statement

prepared in accordance with the
"Protocol for the Specialist Assessment and minimum report content requirements for environmental impacts on Terrestrial Animals"

Portion 4 of Farm Kellershoogte 152, near
Oudtshoorn in Western Cape Province



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*"Protocol for the Specialist Assessment and
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Portion 4 of Farm Kellershoogte 152, near Oudtshoorn in Western Cape Province

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For: Mooiplaas Trust

21 June 2022

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SPECIALIST DETAILS & DECLARATION

This report has been prepared in accordance with the "Protocol for the specialist assessment and minimum report content requirements for environmental impacts on **terrestrial animal species**", as promulgated in terms of Section 24 (5) of the National Environmental Management Act, 1998 (Act No. 107 of 1998), published in GN. No. 320 dated 20 March 2020. It has been prepared independently of influence or prejudice by any parties.

The details of Specialists are as follows –

Table 1: Details of Specialist

Specialist	Qualification and accreditation
Dr David Hoare	PhD Pr.Sci.Nat. 400221/05 (Ecological Science, Botanical Science)

Details of Author:

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Main areas of specialisation

- Vegetation and general ecology (grasslands, savanna, Albany thicket, fynbos, coastal systems, wetlands).
- Plant biodiversity and threatened plant species specialist.
- Alien plant identification and control / management plans.
- Remote sensing, analysis and mapping of vegetation.
- Specialist consultant for environmental management projects.

Professional Natural Scientist, South African Council for Natural Scientific Professions, Reg. no. 400221/05 (Ecology, Botany)

Member, International Association of Vegetation Scientists (IAVS)

Member, Ecological Society of America (ESA)

Member, International Association for Impact Assessment (IAIA)

Member, Herpetological Association of Africa (HAA)

Employment history

- 1 December 2004 – present, Director, David Hoare Consulting (Pty) Ltd. Consultant, specialist consultant contracted to various companies and organisations.
- 1 January 2009 – 30 June 2009, Lecturer, University of Pretoria, Botany Dept.
- 1 January 2013 – 30 June 2013, Lecturer, University of Pretoria, Botany Dept.
- 1 February 1998 – 30 November 2004, Researcher, Agricultural Research Council, Range and Forage Institute, Private Bag X05, Lynn East, 0039. Duties: project management, general vegetation ecology, remote sensing image processing.


Declaration of independence:

David Hoare Consulting (Pty) Ltd in an independent consultant and hereby declares that it does not have any financial or other vested interest in the undertaking of the proposed activity, other than remuneration for the work performed in terms of the National Environmental Management Act, 1998 (Act 107 of 1998). In addition, remuneration for services provided by David Hoare Consulting (Pty) Ltd is not subjected to or based on approval of the proposed project by the relevant authorities responsible for authorising this proposed project.

Disclosure:

David Hoare Consulting (Pty) Ltd undertakes to disclose, to the competent authority, any material information that has or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document required in terms of the National Environmental Management Act, 1998 (Act 107 of 1998) and will provide the competent authority with access to all information at its disposal regarding the application, whether such information is favourable to the applicant or not.

Based on information provided to David Hoare Consulting (Pty) Ltd by the client and in addition to information obtained during the course of this study, David Hoare Consulting (Pty) Ltd presents the results and conclusion within the associated document to the best of the author's professional judgement and in accordance with best practise.



Dr David Hoare

Date

21 June 2022

TERMS OF REFERENCE

PROTOCOL FOR THE SPECIALIST ASSESSMENT AND MINIMUM REPORT CONTENT REQUIREMENTS FOR ENVIRONMENTAL IMPACTS ON TERRESTRIAL ANIMAL SPECIES

This site sensitivity assessment follows the requirements of The Environmental Impact Assessment Regulations, as promulgated in terms of Section 24 (5) of the National Environmental Management Act, 1998 (Act No. 107 of 1998), published in GN. No. 320 dated 20 March 2020.

General information

1.1 An applicant intending to undertake an activity identified in the scope of this protocol, on a site identified by the screening tool as being of “**very high**” or “**high**” sensitivity for terrestrial animal species, must submit a **Terrestrial Animal Species Specialist Assessment Report**.

1.2 An applicant intending to undertake an activity identified in the scope of this protocol, on a site identified by the screening tool as being of “**medium** sensitivity” for terrestrial animal species, must submit either a **Terrestrial Animal Species Specialist Assessment Report** or a **Terrestrial Animal Species Compliance Statement**, depending on the outcome of a site inspection undertaken in accordance with paragraph 4.

1.3 An applicant intending to undertake an activity identified in the scope of this protocol, on a site identified by the screening tool as being of “**low**” sensitivity for terrestrial animal species, must submit a **Terrestrial Animal Species Compliance Statement**.

1.4 Where the information gathered from the site sensitivity verification differs from the screening tool designation of “very high” or “high” for terrestrial animal species sensitivity on the screening tool, and it is found to be of a “low” sensitivity, then a **Terrestrial Animal Species Compliance Statement** must be submitted.

1.5 Where the information gathered from the site sensitivity verification differs from the screening tool designation of “low” terrestrial animal species sensitivity and it is found to be of a “very high” or “high” terrestrial animal species sensitivity, a **Terrestrial Animal Species Specialist Assessment** must be conducted.

1.6 If any part of the development falls within an area of confirmed “very high” or “high” sensitivity, the assessment and reporting requirements prescribed for the “very high” or “high” sensitivity, apply to the entire development footprint. Development footprint in the context of this protocol, means the area on which the proposed development will take place and includes the area that will be disturbed or impacted.

1.7 The **Terrestrial Animal Species Specialist Assessment** and the **Terrestrial Animal Species Compliance Statement** must be undertaken within the study area.

1.8 Where the nature of the activity is not expected to have an impact on species of conservation concern (SCC) beyond the boundary of the preferred site, the study area means the proposed development footprint within the preferred site.

1.9 Where the nature of the activity is expected to have an impact on SCC beyond boundary of the preferred site, the project areas of influence (PAOI) must be determined by the specialist in accordance with Species Environmental Assessment Guideline, and the study area must include the PAOI, as determined.

Terrestrial Animal Species Specialist Assessment

2.1 The assessment must be undertaken by a specialist registered with the South African Council for Natural Scientific Professions (SACNASP), within a field of practice relevant to the taxonomic groups (“taxa”) for which the assessment is being undertaken.

2.2 The assessment must be undertaken in accordance with the Species Environmental Assessment Guideline and must:

- 2.2.1 Identify the SCC which were found, observed or are likely to occur within the study area;
- 2.2.2 provide evidence (photographs) of each SCC found or observed within the study area, which must be disseminated by the specialist to a recognized online database facility immediately after the site inspection has been performed (prior to preparing the report contemplated in paragraph 3);
- 2.2.3 identify the distribution, location, viability and detailed description of population size of the SCC identified within the study area;
- 2.2.4 identify the nature and the extent of the potential impact of the proposed development to the population of the SCC located within the study area;
- 2.2.5 determine the importance of the conservation of the population of the SCC identified within the study area, based on information available in national and international databases including the IUCN Red List of Threatened Species, South African Red List of Species, and/or other relevant databases;
- 2.2.6 determine the potential impact of the proposed development on the habitat of the SCC located within the study area;
- 2.2.7 include a review of relevant literature on the population size of the SCC, the conservation interventions as well as any national or provincial species management plans for the SCC. This review must provide information on the need to conserve the SCC and indicate whether the development is compliant with the applicable species management plans and if not, a motivation for the deviation;
- 2.2.8 identify any dynamic ecological processes occurring within the broader landscape, that might be disrupted by the development and result in negative impact on the identified SCC, for example, fires in fire-prone systems;
- 2.2.9 identify any potential impact on ecological connectivity in relation to the broader landscape, resulting in impacts on the identified SCC and its long term viability;
- 2.2.10 determine buffer distances as per the Species Environmental Assessment Guidelines used for the population of each SCC; and
- 2.2.11 discuss the presence or likelihood of additional SCC including threatened species not identified by the screening tool, Data Deficient or Near Threatened Species, as well as any undescribed species, or roosting and breeding or foraging areas used by migratory species where these species show significant congregations, occurring in the vicinity; and
- 2.2.12 identify any alternative development footprints within the preferred development site which would be of “low” or “medium” sensitivity as identified by the screening tool and verified through the site sensitivity verification.

2.3 The findings of the assessment must be written up in a **Terrestrial Animal Species Specialist Assessment Report**.

Terrestrial Plant Species Specialist Assessment Report

3.1 This report must include as a minimum the following information:

- 3.1.1 contact details and relevant experience as well as the SACNASP registration number of the specialist preparing the assessment including a curriculum vitae;
- 3.1.2 a signed statement of independence by the specialist;

3.1.3 a statement on the duration, date and season of the site inspection and the relevance of the season to the outcome of the assessment;

3.1.4 a description of the methodology used to undertake the site sensitivity verification and impact assessment and site inspection, including equipment and modelling used where relevant;

3.1.5 a description of the mean density of observations/number of samples sites per unit area of site inspection observations;

3.1.6 a description of the assumptions made and any uncertainties or gaps in knowledge or data;

3.1.7 details of all SCC found or suspected to occur on site, ensuring sensitive species are appropriately reported;

3.1.8 the online database name, hyperlink and record accession numbers for disseminated evidence of SCC found within the study area;

3.1.9 the location of areas not suitable for development and to be avoided during construction where relevant;

3.1.10 a discussion on the cumulative impacts;

3.1.11 impact management actions and impact management outcomes proposed by the specialist for inclusion in the Environmental Management Programme (EMPr);

3.1.12 a reasoned opinion, based on the findings of the specialist assessment, regarding the acceptability or not, of the development related to the specific theme considered, and if the development should receive approval or not, related to the specific theme being considered, and any conditions to which the opinion is subjected if relevant; and

3.1.13 a motivation must be provided if there were any development footprints identified as per paragraph 2.2.12 above that were identified as having "low" or "medium" terrestrial animal species sensitivity and were not considered appropriate.

3.2 A signed copy of the assessment must be appended to the Basic Assessment Report or Environmental Impact Assessment Report.

Terrestrial Animal Species Compliance Statement

5.1 The compliance statement must be prepared by a SACNASP registered specialist under one of the two fields of practice (Zoological Science or Ecological Science).

5.2 The compliance statement must:

5.2.1 be applicable within the study area;

5.2.2 confirm that the study area is of “low” sensitivity for terrestrial animal species; and

5.2.3 indicate whether or not the proposed development will have any impact on SCC.

5.3 The compliance statement must contain, as a minimum, the following information:

5.3.1 contact details and relevant experience as well as the SACNASP registration number of the specialist preparing the compliance statement including a curriculum vitae;

5.3.2 a signed statement of independence by the specialist;

5.3.3 a statement on the duration, date and season of the site inspection and the relevance of the season to the outcome of the assessment;

5.3.4 a description of the methodology used to undertake the site survey and prepare the compliance statement, including equipment and modelling used where relevant;

5.3.5 the mean density of observations/ number of samples sites per unit area;

5.3.6 where required, proposed impact management actions and outcomes or any monitoring requirements for inclusion in the EMPr;

5.3.7 a description of the assumptions made and any uncertainties or gaps in knowledge or data;

5.3.8 any conditions to which the compliance statement is subjected.

A signed copy of the Terrestrial Animal Species Compliance Statement must be appended to the Basic Assessment Report or the Environmental Impact Assessment Report.

INTRODUCTION

Project location

The farm portion is located 11 km south-west of Oudtshoorn in Western Cape Province (Figure 1). The site is alongside the R328 between Oudtshoorn and Mossel Bay. It is on the lower slopes and plains on the northern side of a low ridge, which is part of a series of parallel ridges running east-west in the area south of Oudtshoorn. There is a small river valley running past the eastern side of the site, the Kandelaarsrivier, which is a small tributary of the Olifants River, a more significant valley and river system running parallel to the Swartberg Mountains past the southern side of Oudtshoorn, eventually joining the Gourits River to the west of the Gamkaberg. The river and hills are important from an animal perspective in that the river as a whole is suitable habitat for the Riverine Rabbit, flagged for the site, and the hills and associated topography are suitable habitat for Verreaux's Eagle, also flagged for the site.

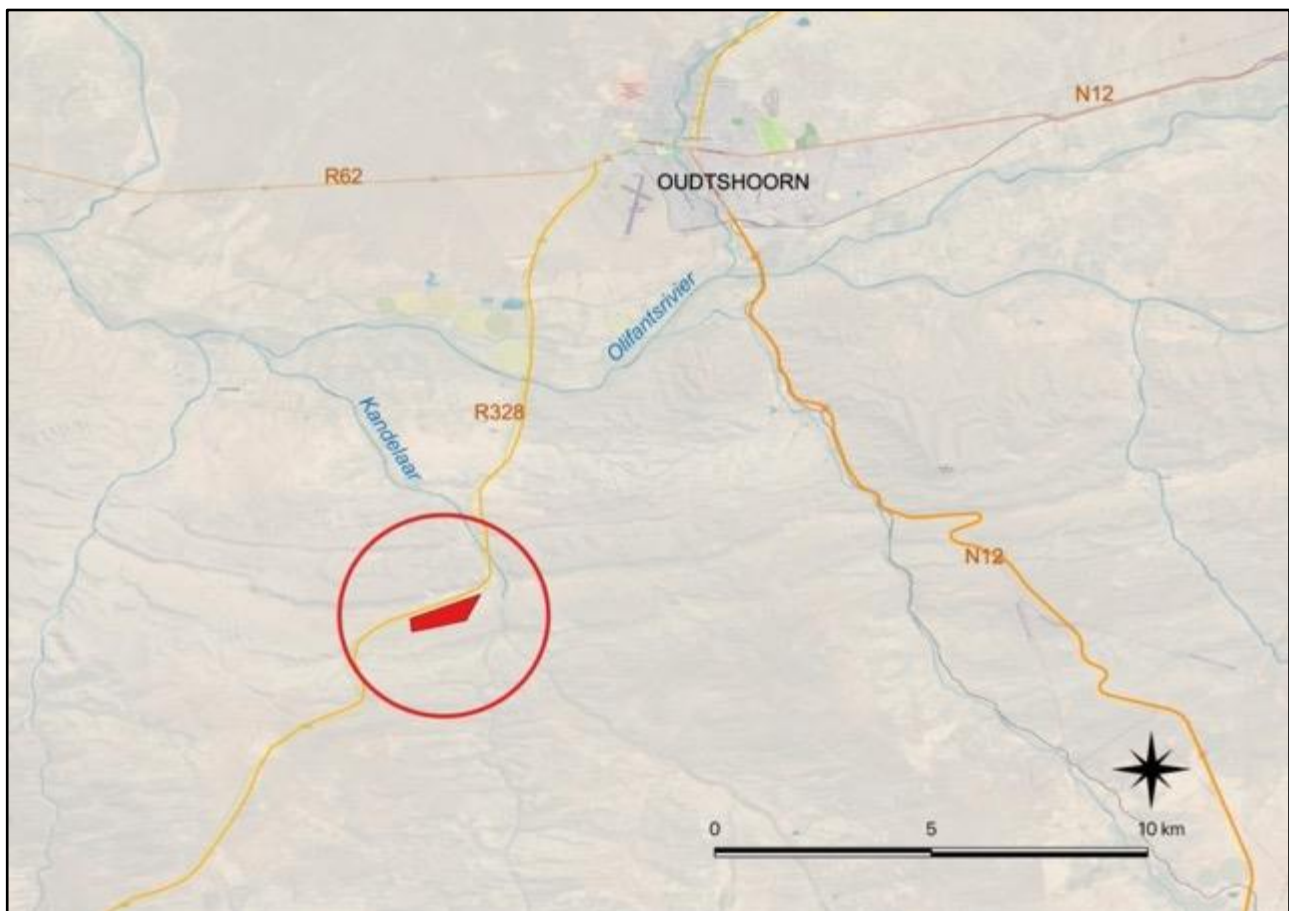


Figure 1: Location of the site.

Identified Theme Sensitivities

A sensitivity screening report from the DEA Online Screening Tool was requested in the application category: Agriculture_Forestry_Fisheries|Crop Production (Figure 2). The DFFE Screening Tool report for the area indicates the following ecological sensitivities:

Theme	Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
Animal Species Theme		X		

Animal Species theme

The animal species theme was highlighted as being of High sensitivity due the potential presence of the following species:

Sensitivity	Feature(s)
High	Aves-Aquila verreauxii
Medium	Invertebrate-Aneuryphymus montanus
Medium	Mammalia-Bunolagus monticularis

The area of High sensitivity corresponds with the southern lip of the ridge, which is the habitat suitable for *Aquila verreauxii*. All the other areas of High sensitivity shown in Figure 2 are similarly along ridge lines and would be modelled habitat for the eagle.

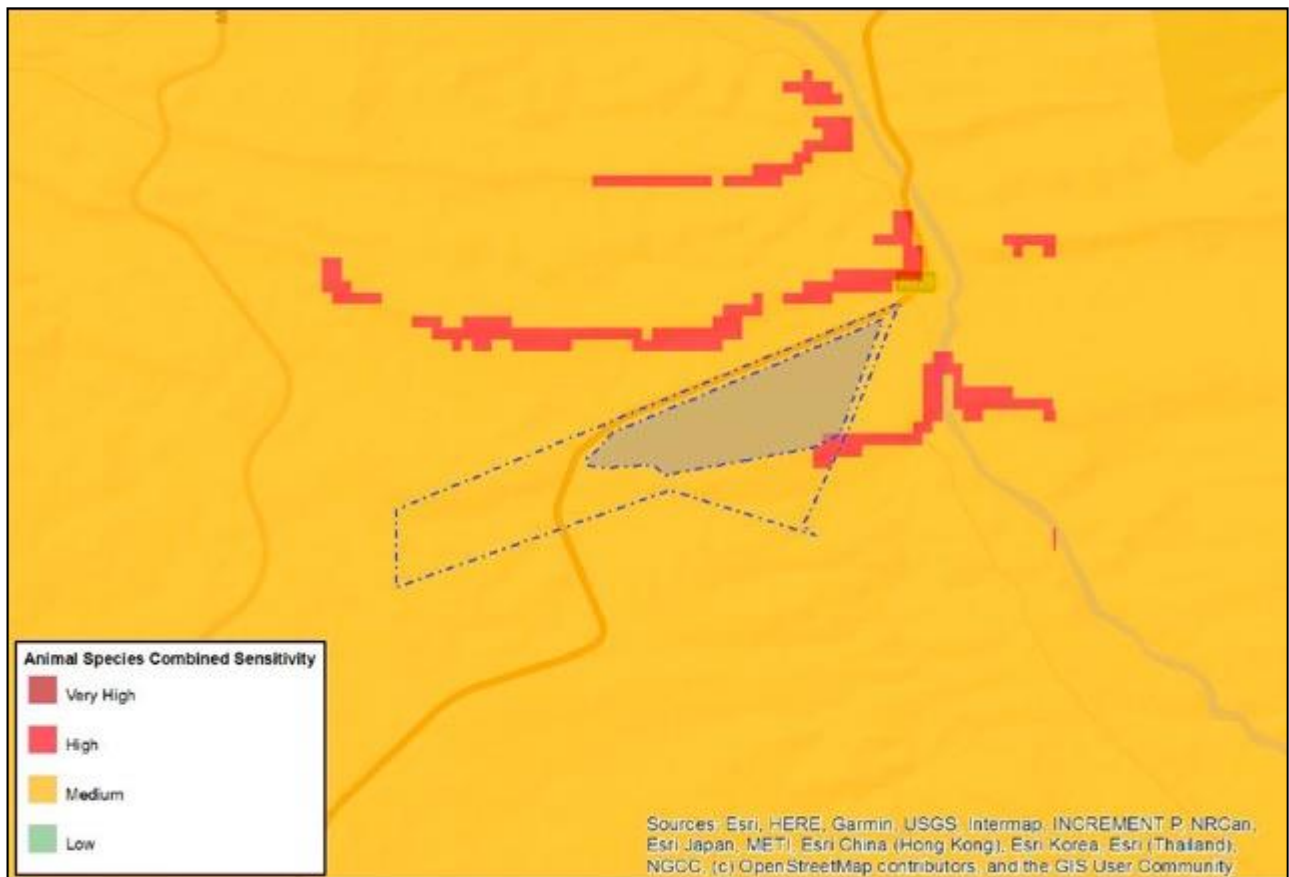


Figure 2: DFFE Screening Tool extract: animal theme.

METHODOLOGY

The detailed methodology followed as well as the sources of data and information used as part of this assessment is described below.

Survey timing

The study commenced as a desktop-study followed by a site-specific field study on 25 May 2022. The site is within an area of Succulent Karoo, but embedded within the Fynbos Biome with a peak rainfall season (for the entire biome) in late winter to spring, which occurs from August to December (Figure 3). Oudtshoorn itself has relatively low rainfall (ca. 300 mm per annum) and it is relatively evenly distributed across all months. Other factors influence emergence of particular plant growth forms, but for animals, the season of rainfall is relatively unimportant at this site. The date of the survey was therefore suitable for assessing the site in terms of animal species.

Field survey approach

During the field survey, all major natural variation on site was assessed and select locations were traversed on foot. A hand-held Garmin GPSMap 64s was used to record a track within which observations were made.

Aerial imagery from Google Earth was used to identify and assess habitats on site. Patterns identified from satellite imagery were verified on the ground. During the field survey, particular attention was paid to ensuring that all habitat variability was covered physically on the ground during the search for plant species. From this ground survey, as well as ad hoc observations on site, a checklist of plant species occurring on site was compiled.

Where possible, digital photographs were taken of all animal species that were seen on site. All animal species recorded in this way were uploaded to the iNaturalist website.

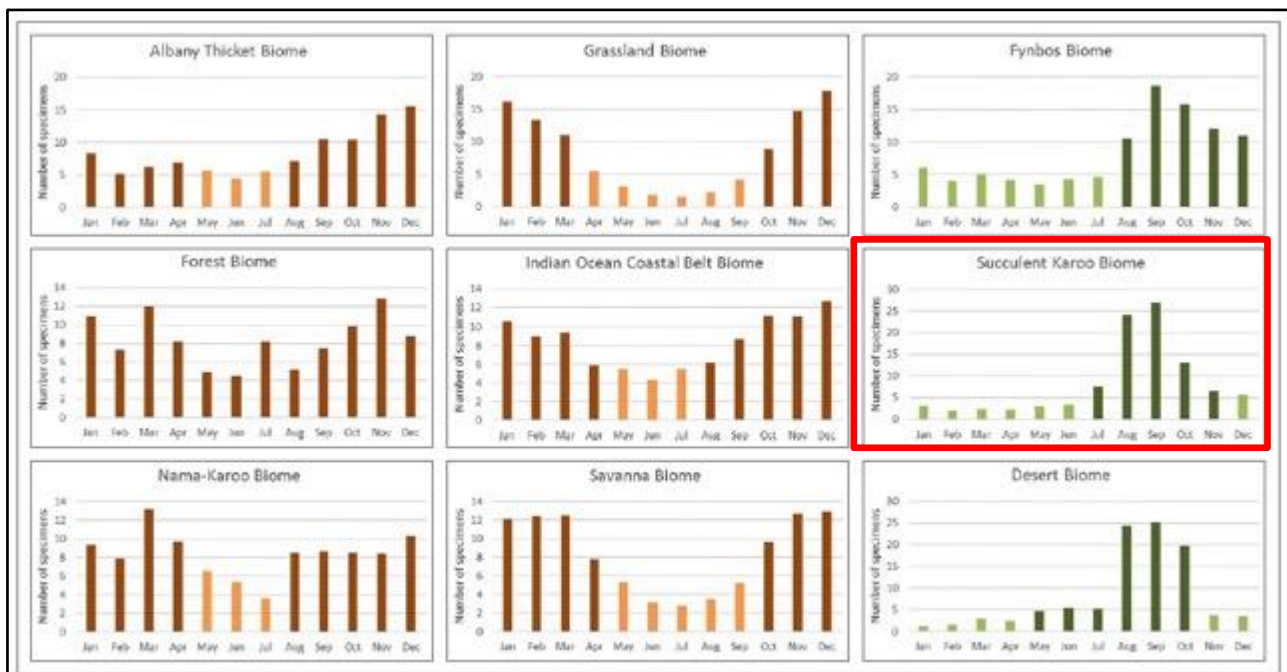


Figure 3: Recommended survey periods for different biomes (Species Environmental Assessment Guidelines).

Sources of information

Animals

- Lists of animal species that have a geographical range that includes the study area were obtained from literature sources (Bates et al., 2014 for reptiles, du Preez & Carruthers 2009 for frogs, Mills & Hes 1997 and Friedmann and Daly, 2004 for mammals). This was supplemented with information from the Animal Demography Unit website (adu.uct.ac.za) and literature searches for specific animals, where necessary.
- Published literature and online sources, including Collins et al. 2016, Duthie 1989, Cape Nature 2022

ASSESSMENT OUTCOMES

Habitats on site

A landcover and habitat mapping exercise was undertaken for the site. This identified various natural habitats that occur on site, shown in Figure 4. A general view from the north of the site looking southwards is shown in Figure 5. The habitat assessment is important for understanding the suitability of habitat on site for various plant and animal species of concern, which usually have very specific habitat requirements.

Plains

These are the low-lying, flatter parts of the site between the main road and the base of the hills on the southern side of the site. They are the most extensive habitat within the typical view is shown in the photograph in Figure 9. The vegetation consists of a relatively uniform sparse cover of succulent and karroid dwarf shrubs.

Footslopes

This is a transitional area between the plains and the ridge. The topography is intermediate between the two, but also includes periodic drainage areas that cut through it where the topography is more incised. The vegetation is similar to the plains, but also includes a scattering of woody shrubs.

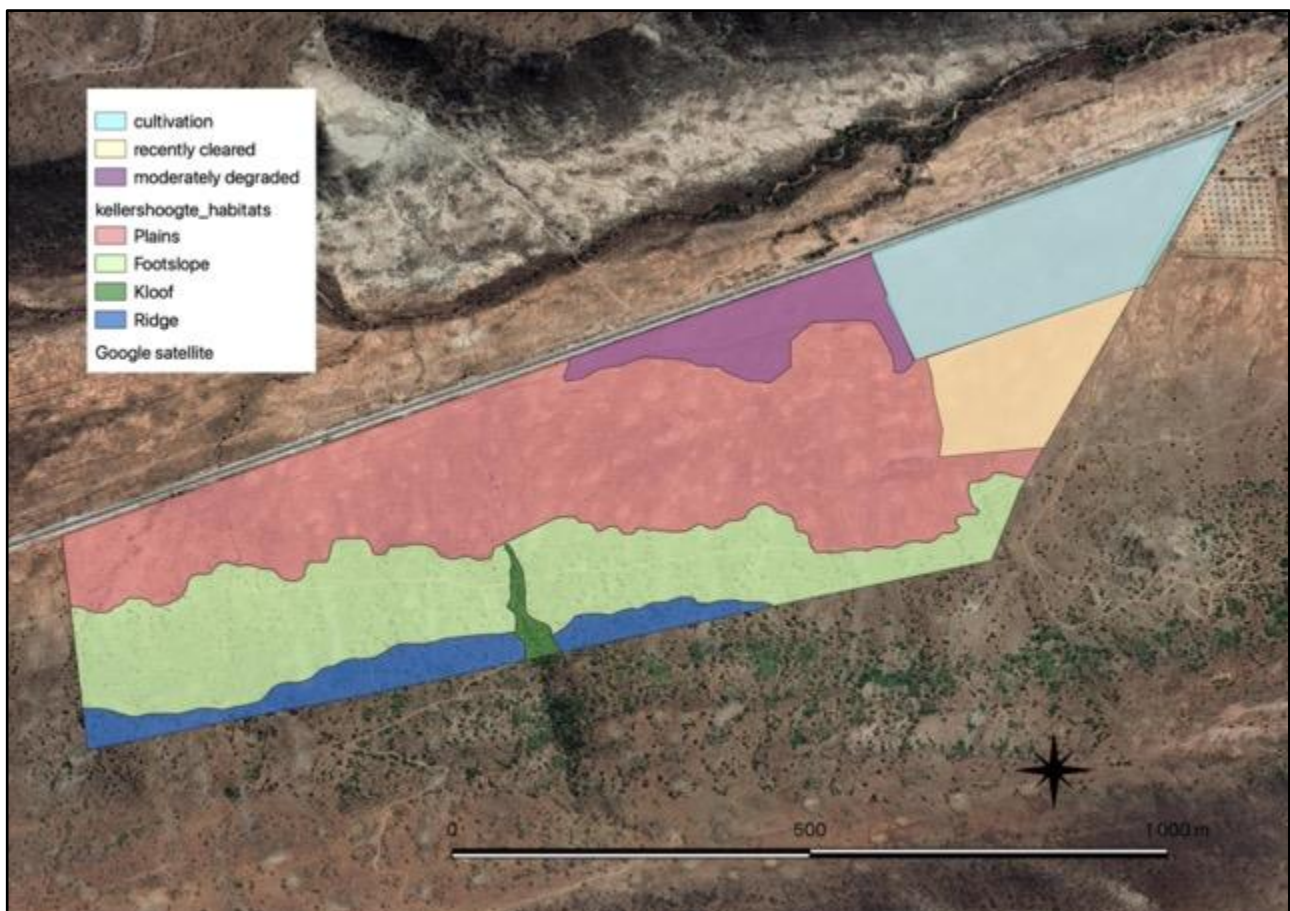


Figure 4: Map of habitats on site.

Ridge

The ridge is characterized by the dominance of spekboom, *Portulacaria afra*, along with a diversity of other shrubs. It is moderately steep and has a relatively high cover of surface rock. Soils are mostly shallow and rocky. The ridge area extends further south than the assessed area, where it drops off steeply into a valley south of the site.

Kloof

This is a single valley cutting into the ridge with relatively steep topography. It is the source of the one drainage line on site, and includes a dry, non-perennial stream. The kloof is a local refuge for animals and it was observed that most animals flushed during the walk-through ran towards this kloof area to escape.

Cultivation

These are the areas that have recently been planted as orchards. Note that historical aerial imagery shows that these areas were occupied by a small farm dam, and were otherwise degraded, as per the next category described below (“Degraded areas”).

Degraded areas

Historical aerial imagery shows that there is a wedge of habitat close to the main road, which gets wider towards the east, in which there are long-term over-grazing effects, including being reduced to bare ground. On-site observations show that these areas are dominated by weedy species, such as *Mesembryanthemum guerichianum* and *M. junceum*, and absence of the common flora of other plains areas.

Recently cleared

There is a small area on the eastern boundary that appears to have been lightly cleared, although no soil disturbance appears to have taken place and the original vegetation is re-appearing.



Figure 5: View towards ridge from plains area.

Listed species that could occur on site

Animal species flagged for the study area

The following species have been flagged for the site in the DFFE Screening Report:

Aquila verreauxii

Vulnerable

Verreauxs' Eagle are predominantly found in mountainous, rocky habitat with high, inaccessible nesting cliffs (Davies & Allan, 1997, Gargett 1990). Their territories surround their nest sites, but their nests are not necessarily in the centre of their territory (Gargett, 1990). Nests are usually built on cliffs and ledges (Gargett, 1990), although they have been recorded nesting on power lines and occasionally in trees. Resident pairs can have up to and exceeding five alternate nest sites within a territory, although one site may be preferred (Davies, 1994). Alternate nests may be some distance apart. Verreauxs' Eagle is an apex predator that plays an important ecological role (Davies, 1994). Their primary prey is the rock hyrax, *Procavia capensis*, but they also hunt a range of smaller mammals, birds and reptiles (Gargett 1990, Boshoff et al. 1991, Murgatroyd et al. 2016a, 2016b).

According to the the South African Bird Atlas Project (SABAP2 2022), there is a relatively high reporting rate for *Aquila verreauxii* in the pentad in which the site is located, although there are consistently higher occurrences within the Swartberg Mountains. The site itself does not have suitable nesting habitat, but the nearby ridges, especially those with ledges on the top edges of the south-facing slopes, are possibly suitable. This includes a ridge to the south of the site



Figure 6: Rock outcrops south of the site.

(Figure 6), although these do not qualify as “high, inaccessible nesting cliffs”. These areas were carefully searched and no nests were found, or any evidence of nesting. The site is therefore potentially suitable foraging habitat but is unlikely to contain any nesting birds. Ensuring that the ridge habitat is kept intact and undisturbed would ensure that prey for the bird is available on site.

In terms of the Animal Theme sensitivity, this species is flagged as High sensitivity for the site, specifically for steep south-facing slopes associated with the site and surrounding areas. The proposed activities do not affect these areas, and no nests were found in these areas. It was therefore not found on site during the site inspection and the presence is confirmed to be unlikely. The site therefore has low sensitivity with respect to this species.

Bunolagus monticularis

The Critically Endangered *Bunolagus monticularis* (Riverine Rabbit) occurs along seasonal rivers in the Nama Karoo. It is endemic to the central Karoo in the Northern and Western Cape provinces, and has more recently been found in lower altitudes in the Fynbos Biome (Matthee et al. 2022), including in the Baviaansklouf (EWT 2019). The southern population is distributed within three catchments: the Breede, Gouritz and Olifant river systems. The broader distribution of the species is associated with the riparian vegetation along the seasonal river catchments (Duthie et al, 1989). It is a habitat specialist occupying a very restricted and specialised riverine shrubland niche that is linked to its feeding preferences. It is known to be browser and feeds on the flowers and leaves of Karoo shrubs (e.g. *Pteronia erythrochaetha*, *Kochia pubescens*, *Salsola glabrescens* and Mesembryanthemaceae) (Duthie et al, 1989). In addition, it will graze on new grass shoots of the shrubs during the wet season and selected grass species (Duthie et al, 1989) to supplement its diet. The dense and diverse riparian vegetation provides shelter from heat and predators, and the soft and deep silt soils are of critical importance to the species as it uses these soils for burrowing and constructing breeding dens. In the southern Cape they are not restricted to the alluvial floodplains (Collins et al. 2016) and can also occur in old lands not associated with riverine vegetation.



Figure 7: Most likely core habitat for Riverine Rabbit, if it occurred in the area.

The species has been recorded in the quarter degree grid in which Oudtshoorn is situated, and is known to occur within the catchment of the Olifant river systems, of which the Kandelaars River that runs past the site on the eastern side is a part. It is therefore possible for it to occur in any of the tributaries of the river system and, based on the fact that it occurs outside of riverine systems in the Fynbos Biome, it is possible that it could occur more widely. However, the closest natural valley bottom system through which the animals are likely to move is to the north of the site and is on the other side of the main road (Figure 7). There is therefore a low likelihood of any Riverine Rabbits being on site. Whether they occur there or not is almost impossible to determine without undertaking long-term camera-trapping surveys. The best approach is to treat good quality natural habitat as sensitive and ensure existing ecological linkages are maintained.

In terms of the Animal Theme sensitivity, this species is flagged as Medium sensitivity for the site. The species was not found on site during the site inspection and the presence is confirmed to be unlikely. The site therefore has low sensitivity with respect to this species.

***Aneuryphymus montanus* (Yellow-winged Agile Grasshopper)**

Vulnerable B2ab(iii,v)

Only known from six localities in the Cape region (Brown 1960). The species is associated almost strictly with fynbos vegetation, although extending geographically towards East London, where it has been collected "amongst partly burnt stands of evergreen Sclerophyll in rocky foothills" (Brown 1960). It prefers south-facing cool slopes (Kinvig 2005). It is a medium-sized, robust, active geophilous insect which readily flies off when disturbed and is easily distinguished in flight by the pale lemon base of the hind wing (Brown 1960).

Published descriptions suggest that it is not often seen but, when observed, occurs in obvious numbers. No grasshoppers were seen on site that matched the description of this species. If it occurred in the area it would be found within fynbos, which does not occur on site. It is therefore unlikely that it would occur on site.

In terms of the Animal Theme sensitivity, this species is flagged as Medium sensitivity for the site. The species was not found on site during the site inspection and the presence is confirmed to be unlikely. The site therefore has low sensitivity with respect to this species.

DISCUSSION AND CONCLUSIONS

There are three threatened animal species that are flagged for the site. The two that could possibly make use of the site for foraging are *Aquila verreauxii* and *Bunolagus monticularis*. In both cases, it is considered unlikely that there are any resident animals on site, or even that they forage on site. Nevertheless, both species occur in the general geographical area and, in principle, any possibly favourable habitat should be kept intact, along with preserving effective linkages in the landscape. Nevertheless, the site was assessed as being unlikely habitat for both species and therefore has low sensitivity with respect to the animal species theme.

The small area of orchards that have been developed on site (within yellow lines in Figure 8) are adjacent to the existing farmhouse complex and other cultivation (red circle in Figure 8). They are also within previously disturbed and/or degraded areas. They will therefore not result in loss of habitat for either of these species, will not reduce foraging resources, and will not disrupt ecological corridors and migration routes.



Figure 8: View from the ridge northwards towards the site (cultivated areas is within yellow lines).

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