FE5 (Pty) Ltd Tented Camp: Terrestrial invertebrate assessment

2021-10-11

Prepared for:

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1 INTRODUCTION

1.1 Background

A tented camp has been developed on the upper slopes of the Boschendal Estate and comprises seven tents that can accommodate two people each, as well as a large mess tent, support tent with communal kitchen facilities & toilets and a staff tent. All tents are on decks and the total area under deck is 988 m^2. Additional small areas included in the development are a gravel road encircling the site, seven parking bays, as well as areas housing sewage treatment infrastructure, a generator and a transformer. The seven accommodation tents and associated parking bays are situated within a small patch of indigenous vegetation surrounded by fallow fields; all other infrastructure is within the surrounding fallow fields. The total area of indigenous vegetation transformed by the development is therefore only approximately 560 m^2 plus the area of the driveways and parking bays.

AfriBugs was appointed to assess the potential for impacts due to the construction of the tented camp on two invertebrate species (*Kedestes lenis lenis* and Sensitive species 7). Although these species were predicted by the Environmental Screening Tool as potentially occurring on the site, an initial evaluation of the habitat and distribution data for these species suggested that their occurrence is highly unlikely and that a thorough desktop appraisal should be carried out to ascertain whether or not a there is any chance of their occurrence and hence whether or not a detailed survey of the entire project area for these species would be appropriate.

1.2 Compliance with Species Environmental Assessment Protocol

The Screening Report for the FE5 (Pty) Ltd Tented Camp assigned an overall "Medium" Animal Species Theme Sensitivity to the site (see extract from the Screening Tool report in Appendix 1); and for both invertebrate species listed the site was assigned a medium sensitivity. This report presents an assessment relating to the potential for impacts on the two invertebrate species listed: *Kedestes lenis lenis* and Sensitive species 7. The "Medium" sensitivity rating, in combination with the presence of untransformed indigenous vegetation, would indicate that, following the Species Environmental Assessment Guideline (SANBI 2020), a full terrestrial species assessment including site visits by an invertebrate specialist should be carried out. However, I believe that the desktop assessment (supported by data from a botanical specialist site visit) presented here is sufficient to show that the probability of occurrence of either of the SCC listed is negligible and that no purpose would be served by a more detailed assessment including field surveys.

1.3 Specialist details

- Peter Hawkes (phone: +27 (0)72 133 8677; email: peter.hawkes@afribugs.com).
- Professional Natural Scientist in Zoological Science (SACNASP registration number: 400411/04).
- Experience: 27 years of consulting, primary expertise in terrestrial invertebrate fauna.
- *Curriculum vitae* attached (see Appendix 2).

1.4 Assumptions and limitations

- It is assumed that all third-party information used (e.g. GIS data and satellite imagery) is correct at the time of compilation of this report.

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- The inspection of the vegetation of the site was carried out at a time that was not optimal for identification of grasses, so the absence of *Imperata cylindrica* cannot be conclusively determined; this however does not affect the overall conclusions drawn.

1.5 Statement of independence

I, Peter Hawkes, as the appointed invertebrate specialist, hereby declare/affirm the correctness of the information provided in this assessment, and that:

- I meet the general requirements to be independent and have no business, financial, personal or other interest in the proposed development and that no circumstances have occurred that may have compromised my objectivity; and
- I am aware that a false declaration is an offence in terms of regulation 48 of the EIA Regulations (2014).

Signature

10 October 2021
Date

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2 METHODOLOGY

2.1 Environmental Screening Tool report

The Environmental screening tool report assessed the sites as of medium sensitivity for the following terrestrial invertebrate species:

- *Kedestes lenis lenis* (False Bay Unique Ranger)
- Sensitive species 7 (a butterfly, hereafter referred to as SSp7; in accordance with the provisions of the Species Environmental Assessment Guideline (SANBI 2020), the identity is not revealed)

Neither of these species is included in the IUCN Red List, but both have been evaluated against the IUCN Red List criteria and assessed as Critically Endangered (CR) in the latest Southern African Lepidoptera Conservation Assessment (Mecenero *et al*. 2020, Morton 2018, Selb 2018).

2.2 Scope of this report

The focus of this report is on determining the likelihood of impacts on *Kedestes lenis lenis* and SSp7.

2.3 Data sources

A literature review was carried out to identify known locality records and habitat requirements of the two invertebrate SSC predicted for the site by the EST. Information used in this evaluation was drawn largely from the following sources:

Literature sources:

Ball 2006, Edge 2011, Heath & Pringle 2007, Heath *et al.* 2008, Henning *et al*. 1997, 2009, Mecenero *et al*. 2013, 2020, Williams 2021, Woodhall 2005.

Online sources:

1. LepiMap [https://vmus.adu.org.za/]

   - Lepimap returned no records for Sensitive species 7
   - 12 records were found for *Kedestes lenis lenis*, all in QDS 3318DC, 3418AB or 3418BA, but none in 3318DD, where the FE5 (Pty) Ltd Tented Camp is situated, nor in QDS 3319CB where Worcester is located.

2. IUCN Red List [https://www.iucnredlist.org/]
   - No records were returned for *Kedestes lenis lenis* or SSp7.

3. SANBI Red List of South African Species
   - Morton, 2018. *Kedestes lenis lenis:* http://speciesstatus.sanbi.org/assessment/last-assessment/356/ Status listed as CR
   - Selb 2018. [SSp7] http://speciesstatus.sanbi.org/assessment/last-assessment/[XXX]/ Status listed as CR [species identity hidden]

4. Re-evaluation and GIS Mapping of the remaining Habitat Status of the Cape Flats *Kedestes* subspecies, by Andrew Taylor. https://zandvleitrust.org.za/archive/art-zvnr%20in%20and%20around%20the%20reserve-andrew%20project%202008.html

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3 RESULTS AND DISCUSSION

3.1 Distribution of Kedestes lenis lenis

Currently *Kedestes lenis lenis* is known to occur at only four sites, all within the Cape Flats (see Figure 3-1). Mecenero *et al.* (2013) mentioned an historical population of *K. l. lenis* near Worcester, where "it has not been seen since the 1960s", but provided no supporting reference or other evidence for this record. Williams (2021) also listed "near Worcester" as a locality for this species, citing Mecenero (2013) and Edge (2021) also mentions Worcester. However, the Worcester record was not mentioned in Mecenero *et al.* (2020), Ball 2006, Henning *et al.* (1997), Henning *et al*. (2009), Taylor (2008) or Woodhall (2005), and I have not been able to find any clear evidence that the species has actually been recorded from this area. Several authors (e.g. Ball 2006, Henning *et al.* 1997 and Taylor 2008) indicate that the subspecies is narrowly endemic to the Cape Flats, which suggests that they either regarded the Worcester record as erroneous or were unaware of it.

The EOO of 62 km^2 listed by SANBI (2020) suggests that the Worcester record was disregarded in the latest Red List assessment (Morton 2018), which does not mention Worcester. It is unclear whether this omission of the record was due to error, a decision that the Worcester population no longer exists, or a decision that the Worcester area record was erroneous. If the Worcester record was valid, this would suggest that the historical extent of the subspecies was much larger than at present and would be indicative of an even more significant decline in population size and extent of occurrence than would be the case if the subspecies had only previously existed in the Cape Flats, where all current populations are found. In addition, if valid, the Worcester record could indicate a far higher probability of the species occurring at other sites, like Boschendal, that are both distant from and distinct from the current known localities. I have not been able to locate any more specific information on the Worcester record, which is simply indicated as being in the QDS 3319CB (Edge 2021). There is a substantial area of wetland habitat along the Breede River immediately to the south and south-west of Worcester that is perhaps most likely to be where the butterflies would have been found.

Current evidence thus suggests that *Kedestes lenis lenis* is (at least currently) restricted to Cape Flats Dune Strandveld in the Cape Flats region and that there is a low probability of its distribution extending as far east as Boschendal, which is 30 km east of the easternmost known locality, and in Boland Granite Fynbos (see section 3.3).

3.2 Distribution of Sensitive Species 7

SSp7 is known only from a single site, on the southern slopes of, and extending to the peak of, the Swartberg Mountain near Moreesberg (see Figure 3-1). It has been suggested (Selb 2018) that additional populations could occur within the Piketberg. Based on assessment of Google Earth imagery and vegetation maps, this species could potentially also occur on some mountains 20–40 km to the south and south-east (see Figure 3-1 and section 3.1), but this would be dependant on the presence of the host plant and associated ants as well. Given that SSp7 has not yet been recorded in any of these areas, the probability that it would occur at or near Boschendal, 96 km south of its type locality, seems very low.

3.1 Habitat requirements for Kedestes lenis lenis

The habitat of *Kedestes lenis lenis* is damp seeps, containing stands of *Imperata cylindrica* (L.) Raeuschel, commonly known as Cottonwool or Cogon grass, between dunes on the south-west

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portion of the Cape Flats in Cape Town (Ball, 2006). The vegetation type within which all currently known populations exist is Cape Flats Dune Strandveld (SANBI, 2006-2018). The wetland area in which it seems most likely that a population near Worcester might exist is within Breede Alluvium Fynbos, although Edge (2021) suggests that the Worcester population was in Breede Shale Fynbos, closer to the mountains; the lack of certainty about the validity of this record means that it is of no use in determining possible suitability of a broader range of habitat types.

The larvae of *K. l. lenis* develop on *I. cylindrica*, which has an extremely wide distribution, being found naturally on all continents apart from the Americas and Antarctica. *Imperata cylindrica* is highly combustible, even when green, but re-grows rapidly after fire, allowing it to compete against less fire-adapted species. *Kedestes lenis lenis* is unfortunately highly vulnerable to fires as its larvae, like other *Kedestes* species (Woodhall, 2005) live within tubes well above the ground, formed by attaching leaves of the food plant together with silk. This vulnerability is likely a reason for their favouring wetter areas, where fire is less likely to spread. The adults, which represent the only life stage that could potentially avoid fires, fly only in November and December, so the subspecies is highly vulnerable for most of the year.

The most critical habitat element for *Kedestes lenis lenis* is thus the presence, and adequate abundance, of *Imperata cylindrica* in wetland or damp seep areas.

3.1 Habitat requirements for Sensitive Species 7

The single locality from which SSp7 is known is within Swartland Shale Renosterveld (SANBI 2006-2018). "Heuweltjies", characteristic of this vegetation type, are abundant over the entire Swartberg. The vegetation type is characterised by clay soils derived from the underlying shale; SSp7 occurs in an area of low scrubby vegetation with numerous *Mesembryanthemum* plants (Mecenero *et al*. 2020). The larvae feed on *Roepera* species and are associated with *Crematogaster peringueyi* ants (Heath & Pringle 2007, Heath *et al*., 2008). The southern slopes of the Swartberg are fairly steep, with an average gradient from base to peak of about 25–35%.

Apart from the currently known population on the slopes of the Swartberg near Moreesberg, the areas that seem most likely for additional populations of SSp7 to occur is to the north in the nearby Piketberg (which is also within Swartland Shale Renosterveld and with "heuweltjies" abundant over the less rocky portions), or to the southwest on the Kasteelberg adjacent to Riebeeck West and Riebeeck Kasteel (although itself comprising Hawequas Sandstone Fynbos, this mountain is surrounded by Swartland Shale Renosterveld and also has abundant "heuweltjies".

The most critical habitat elements for SSp7 are thus the presence, and adequate abundance, of *Roepera* spp. and *Crematogaster peringueyi*; it is not known whether slope and overall vegetation community composition are of significance.

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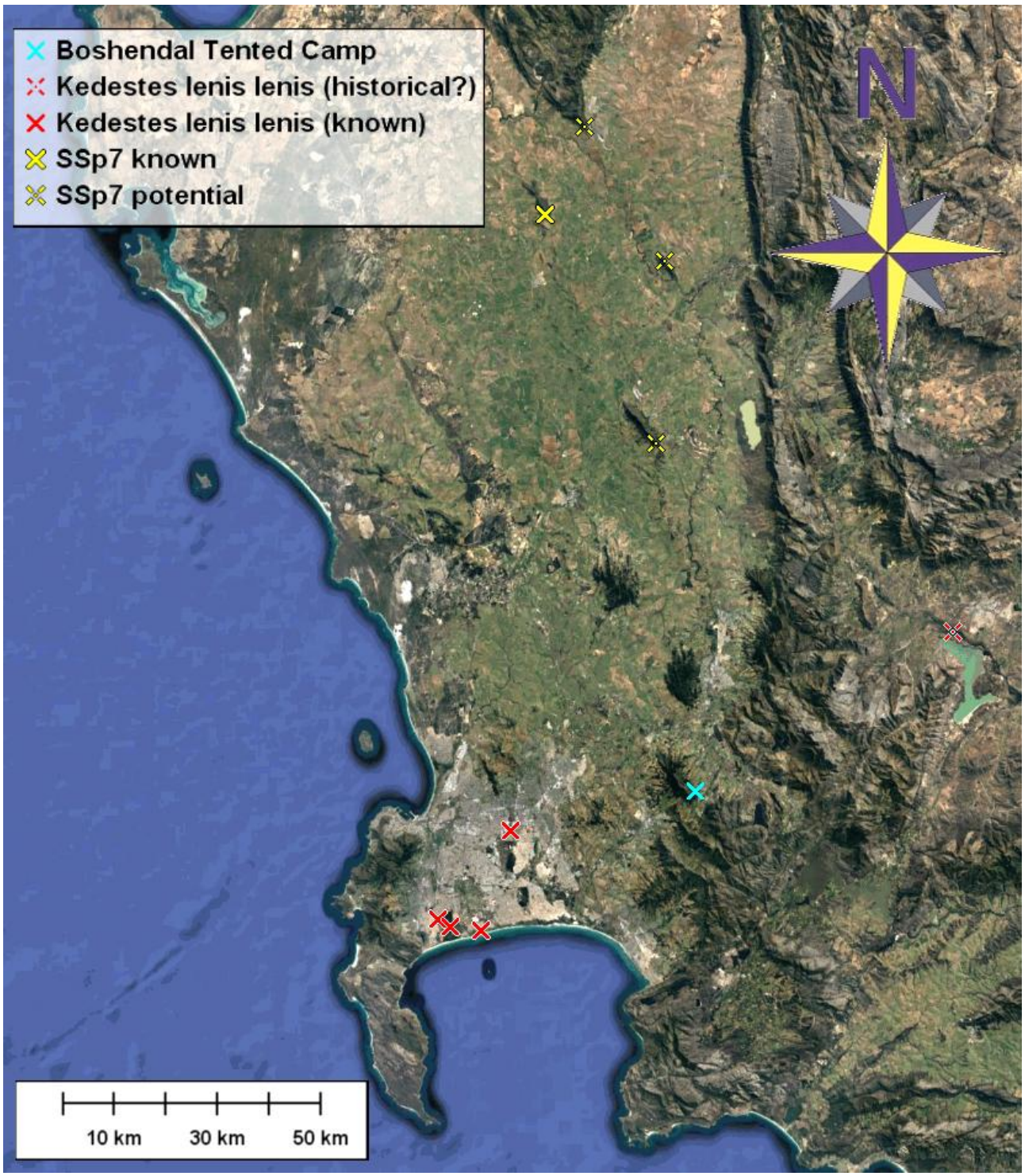

Figure 3-1: Portion of south-western Cape showing distributions of *Kedestes lenis lenis* and Sensitive Species 7 in relation to the FE5 (Pty) Ltd Tented Camp site. [Background image: Image Landsat / Copernicus © 2021 Google, Data SIO, NOAA, U.S. Navy, NGA, GEBCO, © 2021 AfriGis (Pty) Ltd.]

3.2 Site inspection

No site inspection has been carried out specifically for the assessment of the likelihood of *K. l. lenis* or SSp7 within the FE5 (Pty) Ltd Tented Camp, but during a visit by the botanical specialist (Tarryn Martin, Biodiversity Africa) special attention was paid to potential food plants of the butterfly SCC predicted for the site.

No *Roepera* species were observed, nor was any *Imperata cylindrica* identified. Although the season was not ideal for identifying grasses, the grasses observed were predominantly within previously disturbed areas such as the edges of the tracks/roads (see Figure 3-2). According to the botanist's assessment, *Imperata cylindrica* is unlikely to be present in the area where the tents are located as this is mostly fynbos; if this species does occur on the site it is more likely to be near the three support structures (mess, support and staff tents) which are all located in a fallow field area.

Figure 3-2: FE5 (Pty) Ltd Tented Camp (centre), almost entirely surrounded by active and fallow agricultural lands. [Image from Google Earth, © 2021 Maxar Technologies]

3.3 Habitat suitability for Kedestes lenis lenis

No evidence of the presence of the required food plant (*Imperata cylindrica*) for *Kedestes lenis lenis* was found within the FE5 (Pty) Ltd Tented Camp area. Although a very small chance does exist that this plant could occur on the site, or at least in the adjacent disturbed areas, the camp area does not include any wetland or damp seep areas, so even if *I. cylindrica* was present, the habitat would still be unsuitable. The probability that *K. l. lenis* could occur within the site is therefore negligible.

3.4 Habitat suitability for SSp7

Although Swartland Shale Renosterveld does extend southwards almost as far as the base of Sir Lowry's Pass, the vegetation of the Kogelberg is Kogelberg Sandstone Fynbos and of the surrounding regions (within which the FE5 (Pty) Ltd Tented Camp is situated), is Boland Granite Fynbos. "Heuweltjies" are absent from the Kogelberg and while this may not be of direct significance to SSp7, it is indicative of overall differences between this area and the habitat at the type locality of this butterfly.

The presence of the ant species (*Crematogaster peringueyi*) with which SSp7 is associated was not checked, but as this is a very common and widespread ant species and is quite likely to be present,

availability of the food plant in this case is by far the more important limiting factor. Since no evidence of the occurrence of the food plants (*Roepera* spp.) required for SSp7 was found, the probability of its occurrence on the site is negligible. Additionally, as discussed above, the site falls within a different vegetation type and also has differing topography (flat *vs*. steeply sloping) from that of the only known population of SSp7.

4 CONCLUSIONS AND RECOMMENDATIONS

Although the Environmental Screening Tool flagged the potential presence of two invertebrate SCC, *Kedestes lenis lenis* and SSp7, within the FE5 (Pty) Ltd Tented Camp, an analysis of distribution and habitat requirements demonstrates that the probability of occurrence of both species is negligible and thus no impacts on either species will occur as a result of the development.

4.1 Potential impacts and mitigation

No impacts on *Kedestes lenis lenis* or SSp7 are expected as a result of the FE5 (Pty) Ltd Tented Camp development. Impacts on other invertebrate species are expected to be very limited due to the small overall area of the development and the very small footprints of the transformed portions within this area. The only potentially significant impact on invertebrate populations is likely to be from externally visible lighting (see Eisenbeis, 2005; Rich & Longcore 2005), which can be minimised by implementing the following general recommendations as appropriate:

(a) Eliminate unnecessary lighting

Much external lighting installed worldwide is unneeded and, especially in the context of the type of clientele that the FE5 (Pty) Ltd Tented Camp is designed for, elimination/minimisation of external lighting would probably be seen as an additional attraction.

(b) Replace essential fittings with environmentally friendly options

Wherever possible all fluorescent (including compact fluorescent), high pressure sodium vapour, mercury vapour and metal halide fittings should be exchanged for low pressure sodium vapour or monochrome yellow/orange LED fittings. Alternatively filters should be fitted to eliminate all UV and blue components of the light emitted.

(c) Switch off lights not in use

(d) Install motion-detector control

Especially appropriate for security lighting, control of light sources by motion-detectors can substantially reduce impacts even of high-power white light sources. The main impacts of artificial lighting arise from continuous operation that results in long-term attraction of insects to the source. If a light source switches on in response to motion and switches off again after a few minutes, any insects attracted during this period will then be freed from the trap effect and move away, unless they have been trapped within the fixture itself within this period (but see (g)).

(e) Direct fixtures correctly

Omni-directional light fittings should be avoided and all directional fittings should be correctly oriented so that light is restricted to where it is needed, without unnecessary spill

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into the surroundings. If external lighting of structures is essential (e.g. for security reasons), light sources should be directed inward toward the structure/building, so as to light up the structure and result in this becoming a large diffuse light source, rather than having bright point sources directed from the structure/building outward into the natural environment.

(f) Shield fixtures to limit spread

Non-directed, partially-directed or omnidirectional light sources should be shielded so that light is prevented from reaching the surrounding environment. Internal lighting should as far as possible be shielded by blinds/curtains.

(g) Seal fixtures to prevent insects becoming trapped / select fixtures that are already sealed.

Light fixtures comprising enclosures within which insects can become trapped after being attracted by the light should be rendered insect-proof by being properly sealed. Where complete sealing is not possible due to resulting heat build-up and danger of equipment failure or fire, the fixtures should be replaced, or sealed using metal gauze to allow airflow but prevent ingress by insects. Sealing fixtures may increase life-span of light sources by reducing heat build-up and reduce fire risk due to accumulation of dead insects within the fixtures.

(h) Investigate alternative monochrome LED options

In view of recent evidence that LPSV and monochrome LEDs with similar spectra may have significant adverse impacts on fireflies, while having limited effects on most other insects, research into alternative monochrome LED sources that avoid peak firefly sensitivity wavelengths should be encouraged.

4.2 Summary

- The probability that either *Kedestes lenis lenis* or SSp7 will be present within the FE5 (Pty) Ltd Tented Camp is negligible and no impact on these species is expected;
- The limited potential impacts on other invertebrate species could readily be managed by implementing the recommended measures aimed at limiting light pollution.

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Personal Communications

Tarryn Martin Pr.Sci.Nat, Biodiversity Africa.

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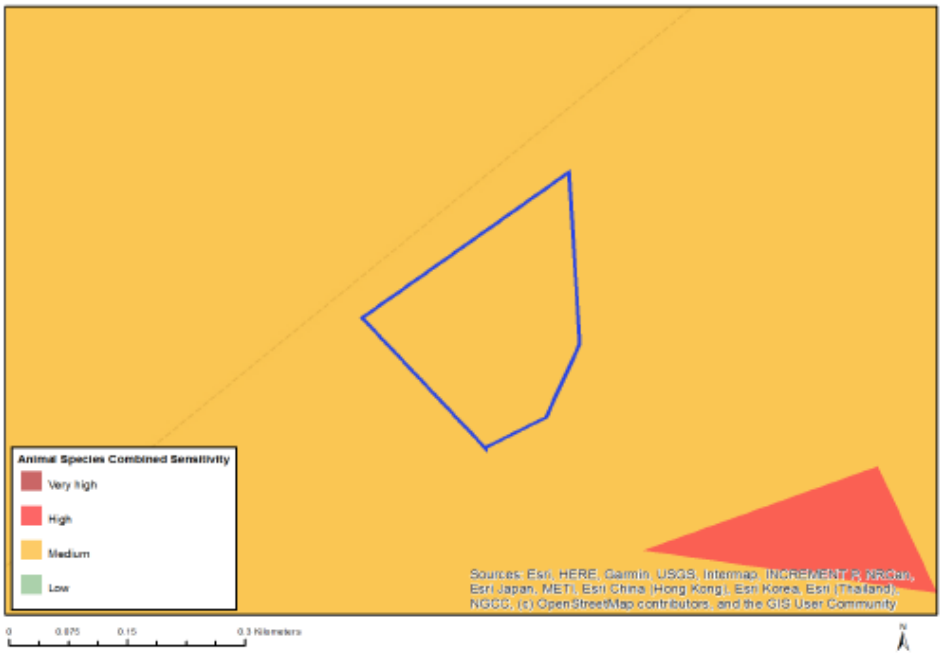
APPENDIX 1: EXTRACT FROM ENVIRONMENTAL SCREENING TOOL REPORT FOR THE FE5 (PTY) LTD TENTED CAMP

MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Medium	Sensitive species 7
Medium	Insecta-Kedestes lenis lenis

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Disclaimer applies
23/03/2020

APPENDIX 2: MR. PETER HAWKES - ABBREVIATED CV

Name:	Peter Geoffrey Hawkes	**Nationality:**	South African
Profession:	Entomologist	**Specialization:**	Environmental impact assessment, environmental monitoring and biodiversity assessment
Positions held:	Director	AfriBugs CC	1999 – present
	Adjunct Professor	University of Venda	2017 – 2020
	Research Associate	University of Venda	2021 – present

Peter Hawkes is an entomologist and owner and director of AfriBugs CC, a company that specialises in invertebrate assessments for EIAs. He has over 26 years experience in environmental impact assessments in East and Southern Africa and has been involved in over 80 projects. He was extensively involved in the EIA and long-term monitoring of the Lower Kihansi Hydropower Project in Tanzania from 1994 to 2007, was the principle investigator for a CEPF-funded project on ant and beetle diversity in 15 sites in the Eastern Arc Mountains and Coastal Forests of Tanzania from 2005-2010, and also led the invertebrate component of the EIA for the Mkuju River Uranium Mine in south-western Tanzania. In Namibia AfriBugs has carried out surveys for the proposed Etango uranium and Otjikoto gold mines, in Mozambique for the proposed Baobab iron ore mine and in Zimbabwe for the Hwange Power Station. AfriBugs has carried out assessments for numerous projects in South Africa including assessment of the proposed Nwamitwa Dam and associated water reticulation infrastructure and assessments of proposed sites for Eskom's proposed Nuclear 1 power station. Under Peter's leadership AfriBugs has discovered representatives of well in excess of 100 undescribed invertebrate species, mainly of ants, and to date has been involved in the formal scientific description of ten of these. He participated as an instructor on the Ant Course held in Uganda in 2012 and for the 2016 Ant Course held in Gorongoza National Park, Mozambique, co-presented an ant identification course in Ghana in January 2019 and was invited to instruct on the (now postponed) Ant Course in Cameroon in 2020.

KEY EXPERIENCE

- Insect biodiversity assessment
- Environmental impact assessment
- Environmental monitoring
- Identification of ant specimens
- Ant taxonomic research
- Insectivore dietary analysis

Reviewed scientific papers for:

- African Entomology
- African Journal of Ecology (member of international reviewer panel)
- African Plant Protection
- Biodiversity Data Journal
- Ecological Research
- European Journal of Taxonomy
- Insectes Sociaux
- Journal of East African Natural History
- Journal of Natural History
- Malagasy Nature
- South African Journal of Science
- University of California Press
- Zookeys
- ZooTaxa

QUALIFICATIONS

1984: B.Sc. (Entomology & Biochemistry), Rhodes University
1985: B.Sc. (Hons) (Entomology), Rhodes University

COURSES COMPLETED

2011: Ant Course, Southwestern Research Station, Portal, Arizona, USA (California Academy of Sciences & Museum of Comparative Zoology).

PROFESSIONAL REGISTRATION AND MEMBERSHIP OF SOCIETIES

Professional Natural Scientist (Zoological Science), South African Council for Natural Scientific Professions, Registration number: 400411/04
Member of SA Chapter of International Association for Impact Assessment (IAIA-sa) (2002-)
Life Member of the Entomological Society of Southern Africa (1985-)

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Life member of the Botanical Society of South Africa (1986-)

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APPENDIX 3: SPECIALIST DETAILS & DECLARATION

environmental affairs
Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

DETAILS OF THE SPECIALIST, DECLARATION OF INTEREST AND UNDERTAKING UNDER OATH

	(For official use only)
File Reference Number:	
NEAS Reference Number:	DEA/EIA/
Date Received:	

Application for authorisation in terms of the National Environmental Management Act, Act No. 107 of 1998, as amended and the Environmental Impact Assessment (EIA) Regulations, 2014, as amended (the Regulations)

PROJECT TITLE

Development of a Tented Camp on Founders Estate, Portion 1685/5, Boschendal, Franschhoek

Kindly note the following:

1. This form must always be used for applications that must be subjected to Basic Assessment or Scoping & Environmental Impact Reporting where this Department is the Competent Authority.
2. This form is current as of 01 September 2018. It is the responsibility of the Applicant / Environmental Assessment Practitioner (EAP) to ascertain whether subsequent versions of the form have been published or produced by the Competent Authority. The latest available Departmental templates are available at https://www.environment.gov.za/documents/forms.
3. A copy of this form containing original signatures must be appended to all Draft and Final Reports submitted to the department for consideration.
4. All documentation delivered to the physical address contained in this form must be delivered during the official Departmental Officer Hours which is visible on the Departmental gate.
5. All EIA related documents (includes application forms, reports or any EIA related submissions) that are faxed; emailed; delivered to Security or placed in the Departmental Tender Box will not be accepted, only hardcopy submissions are accepted.

Departmental Details

Postal address:
Department of Environmental Affairs
Attention: Chief Director: Integrated Environmental Authorisations
Private Bag X447
Pretoria
0001

Physical address:
Department of Environmental Affairs
Attention: Chief Director: Integrated Environmental Authorisations
Environment House
473 Steve Biko Road
Arcadia

Queries must be directed to the Directorate: Coordination, Strategic Planning and Support at:
Email: EIAAdmin@environment.gov.za

P.G.H
G.K

Details of Specialist, Declaration and Undertaking Under Oath

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1. SPECIALIST INFORMATION

Specialist Company Name:	AfriBugs CCC			
B-BBEE	Contribution level (indicate 1 to 8 or non-compliant)	4	Percentage Procurement recognition	100%
Specialist name:	Peter Geoffrey Hawkes			
Specialist Qualifications:	B.Sc(Hons.) Entomology			
Professional affiliation/registration:	SACNASP (registration number: 400411/04)			
Physical address:	341 27th Avenue, Villieria, Pretoria, Gauteng, South Africa			
Postal address:	341 27th Avenue, Villieria, Pretoria, Gauteng, South Africa			
Postal code:	0186	Cell:	0721338677	
Telephone:	0123335748	Fax:	n/a	
E-mail:	peter.hawkes@afribugs.com			

2. DECLARATION BY THE SPECIALIST

I, Peter Geoffrey Hawkes, declare that –

- I act as the independent specialist in this application;
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, Regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- all the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence in terms of regulation 48 and is punishable in terms of section 24F of the Act.

P.C. Hawkes

Signature of the Specialist

AfriBugs CC

Name of Company:

5 October 2021

Date

C.K
P.G.H.

Details of Specialist, Declaration and Undertaking Under Oath

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3. UNDERTAKING UNDER OATH/ AFFIRMATION

I, Peter Geoffrey Hawkes, swear under oath / affirm that all the information submitted or to be submitted for the purposes of this application is true and correct.

P.G. Hawkes

Signature of the Specialist

AfriBugs CC

Name of Company

5 October 2021

Date

7219900-8
CST
C. K Motaung.

Signature of the Commissioner of Oaths

2021/10/05

Date

SUID-AFRIKAANSE POLISIEDIENS
CLIENT SERVICE CENTRE
2021 -10- 05
PRETORIA MOOT
SOUTH AFRICAN POLICE SERVICE

Details of Specialist, Declaration and Undertaking Under Oath

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