

Faunal Compliance Statement

**Proposed development of a Residential Estate on the
Remainder of Portion 21 of Farm 195, George, Western Cape
Compiled for: Sharples Environmental Services cc (SES)
Applicant: Pieter Koen Trust**

Pieter Koen Property Development [Updated report]

September 2023



Report Information

| | |
|---|---|
| Document name | Pieter Koen Property Development Faunal Compliance Statement |
| Number of pages: | 34 |
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| Document version: | 1.0 |

Citation

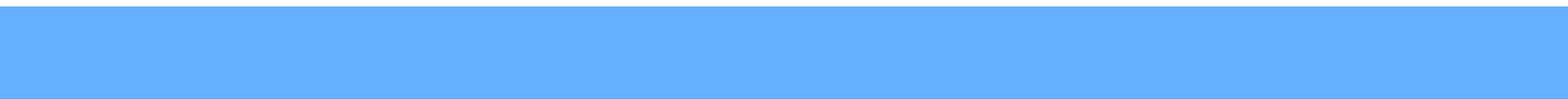
Colville, J.F. & Cohen, C. 2023. Faunal Compliance Statement for Proposed Development of a Residential Estate on Remainder of Portion 21 of Farm 195 (George, Western Cape). Prepared for Sharples Environmental Services cc (SES) on 13 March 2023 and updated on 04 September 2023 by Jonathan F. Colville Terrestrial Ecologist & Faunal Surveys and Callan Cohen Birding Africa.

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Specialist Details

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Jonathan Colville of Terrestrial Ecologist & Faunal Surveys has over fourteen years post-PhD experience in the fields of terrestrial ecology, including investigating the spatial patterns of South Africa's animal and plant diversity. Between 2009 and 2019, Jonathan was involved with the South African National Biodiversity Institute's (SANBI) Biodiversity, Research, Assessment and Monitoring Division (BRAM) undertaking ecological research on South Africa's animal and plant diversity. Since 2020 Jonathan has been operating as a specialist faunal consultant for EIAs and conservation projects. A detailed CV is provided below in Appendix 1.

Signed Statement of Independence:

In terms of Chapter 5 of the National Environmental Management Act of 1998 (Act No. 107 of 1998), as amended, and the Environmental Impact Assessment Regulations, 2014, specialists involved in Environment Assessment Processes must declare their independence and provide their contact details, relevant experience, and a curriculum vitae.

I, Jonathan F. Colville, as the appointed independent specialists, do hereby declare that I am financially and otherwise independent of the client and their EAP, and that all opinions expressed in this document are my own and based on my scientific and professional knowledge, and available information.



Jonathan F. Colville

Conditions Pertaining to this Report

The content of this report is based on my best scientific and professional knowledge, and available information. Jonathan Colville reserves the right to modify the report in any way deemed fit should new, relevant, or previously unavailable or undisclosed information becomes known to him from on-going research or further work in this field, or pertaining to this investigation, and he will inform SES accordingly. This report must not be altered or added to without the prior written consent of Jonathan Colville. This also refers to electronic copies of the report, which are supplied for the purposes of inclusion as part of other reports, including main reports. Similarly, any recommendations, statements or conclusions drawn from or based on this report must refer to this report. If these form part of a main report relating to this investigation or report, this report must be included in its entirety as an appendix or separate section to the main report.

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Introduction

SES has been engaged by Peter Koen Trust to undertake a Basic Assessment for a proposed residential development on the remainder of portion 21 of the Farm 195 in George (Western Cape) (Conceptual layout given in Appendix 3).

SES utilised the National Web based Environmental Screening Tool (<https://screening.environment.gov.za/screeningtool/>) to generate an online site sensitivity report. The screening tool uses faunal species data provided by the South African National Biodiversity Institute (SANBI).

Utilising the results from the Screening Tool, together with our specialist knowledge, the development footprint of the above project has been rated "**High**" sensitivity for six faunal Species of Conservation Concern (SCC), with possible suitable habitat for:

- One grasshopper species:
 - Yellow-winged Agile Grasshopper (*Aneuryphymus montanus*): Medium
- Two bird species:
 - Crowned Eagle (*Stephanoaetus coronatus*): High
 - Knysna Warbler (*Bradypterus sylvaticus*): High
- One amphibian species:
 - Knysna Leaf-folding Frog (*Afrivalus knysnae*): Medium
- Two mammal species:
 - Duthie's golden mole (*Chlorotalpa duthieae*)
 - Sensitive Species 8: Medium

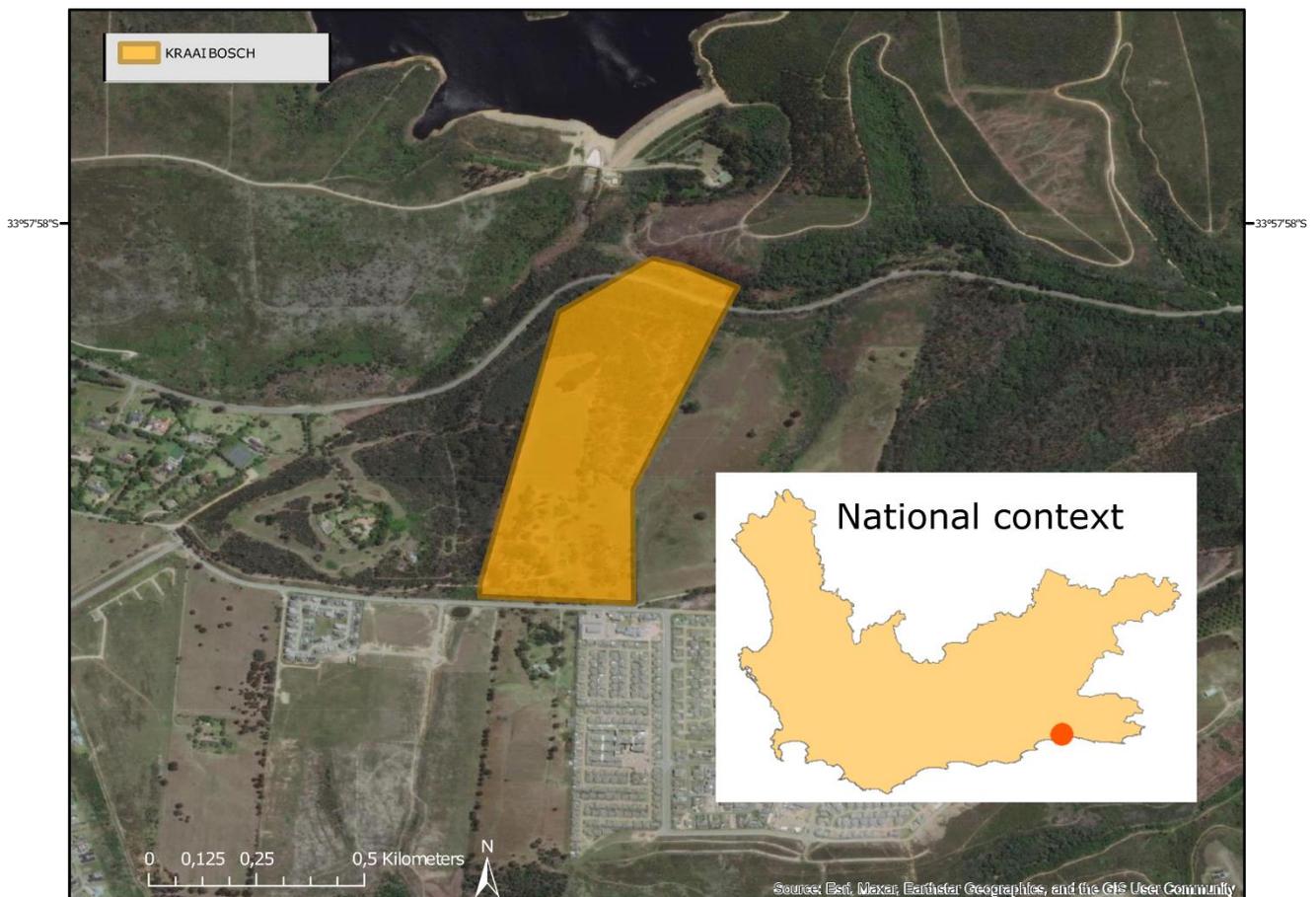


Figure 1: Location of the proposed development area on the remainder of portion 21 of the Farm 195 in, and its regional context in the Western Cape Province.

Terms of Reference

I, Jonathan Colville, was appointed by SES on 20 January 2023 to conduct a site sensitivity verification at the development area, located on the remainder of portion 21 of Farm 195 (George), in two phases, a desktop study and a site visit to assess the possibility of suitable available habitat for the faunal SCC at the project site. Based on the information obtained from these two phases, either a Terrestrial Animal Species Compliance Statement would then be issued, or a Terrestrial Animal Species Specialist Assessment would subsequently be required, as stipulated in the Government Gazette, No. 43855 (Published in Government Notice No. 1150) of 30 October 2020: "Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Terrestrial Animal Species".

1. Carry out a desktop study to determine if any of the faunal SCC have been recorded at or near the project area (preferred Alternative A) and to ascertain the habitat requirements of the SCC.
2. Conduct a site visit of the project area to assess the physical and biological characteristics of the site with regards to habitat suitability for the faunal SCC and identify any sensitive areas, buffer zones, no-go areas, and possible alternatives.
3. Prepare a report detailing the findings of the desktop study and site visit, with conclusions and the issuing of a Terrestrial Animal Species Compliance Statement

or a recommendation that a Terrestrial Animal Species Specialist Assessment would be required.

Assumptions and Limitations

The following limitations and assumptions apply to this assessment:

- It is assumed that all third-party information used (e.g. GIS data and species historical records) was correct at the time of generating this report.
- A one-day site visit was undertaken during summer on a warm and sunny day, ideal for faunal SCC activity. Undertaking a site visit in summer is seasonally a suitable time of the year to detect the listed SCC at the project site.

Site Sensitivity Verification

The screening tool indicated “**High**” to “**Medium**” sensitivity for the listed faunal SCC species. Given the mostly disturbed and transformed nature of the proposed development area and considering the known habitat preferences for the listed SCC species, it is the opinion of the specialists, that the site is of **Low sensitivity** for all the listed SCC species. The nature of the site and its suitability as habitat for the listed species is discussed in the remainder of the report.

Methodology

The methodology used in this report, including a background desktop study and site visit, is outlined in the subsections below.

Desktop Study

- Distributional records for invertebrate SCC were extracted from digitized databases of several South African museums (e.g., Iziko Museum of South Africa, Ditsong National Museum of Natural History, South African National Collections of Insects). Online resources, such as the IUCN Red List of Threatened Species (<https://www.iucnredlist.org/>), the Orthoptera Species File Online (<http://orthoptera.speciesfile.org/HomePage/Orthoptera/HomePage.aspx>), and iNaturalist (<https://www.inaturalist.org/>) were also consulted for information on geographic distributions and habitat requirements for listed invertebrate SCC.
- The Atlas of African frogs (<http://frogmap.adu.org.za/>) and iNaturalist (<https://www.inaturalist.org/>) was consulted for distributional records for South Africa’s frogs.
- Distributional records from the Southern African Bird Atlas Project (SABAP2 data (<http://sabap2.birdmap.africa/>)) for the two bird SCC were examined. Taylor et al. (2015) and online resources, such as BirdLife International (<https://www.birdlife.org/projects/iucn-red-list/>) and BirdLife International (<https://www.birdlife.org/projects/iucn-red-list/>) were also consulted for information on the bird SCC’s geographic distributions and habitat requirements.

- A map of South Africa's Important Bird Areas (IBA) (Marnewick *et al.*, 2015) was overlaid onto the project area. IBAs are selected using the presence of globally threatened species, groups of species with a restricted range (< 50 000 km²), species assemblages confined to a single biome, and congregations of one or more species.
- Furthermore, Dr Callan Cohen (Director of Birding Africa) was consulted as an avifaunal specialist. Dr Cohen has extensive knowledge of Cape birds and is a recognised international expert on African birds. He has a PhD in Ornithology from the University of Cape Town where he is a Research Associate of the FitzPatrick Institute of African Ornithology. He has co-authored two books on South African birds and contributed to five others, including the Red Data Book of Birds of South Africa, Lesotho, and Swaziland. He has over 30 years of experience of bird field surveys. and 25 year of amphibian field surveys, having worked as an amphibian field worker for the South African Frog Atlas Project.
- Published information on all faunal SCC were investigated to further assess their distribution range, ecology, habitat, and any life history requirements.

Site Visit

- The project area (**Figure 1**) was surveyed on 31 January 2023 to assess habitat quality, in terms of the type and amount of natural vegetation remaining. The extent of disturbance that the project area has experienced, in terms of changes to its vegetation and physical properties (e.g. soil) was also considered.
- Season: Summer.
- Areas at and around selected points on the track surveyed by the specialists were investigated across the project area and photographed (**Figure 3 - 17**).
- At each picture site the surrounding habitat was characterised and the likelihood of any of the SCC being present was assessed.
- Sweep netting (SANBI, 2020) (**Figure 12**) was undertaken at selected points for the grasshopper SCC.
- Within the project area, visual searching using binoculars and bird calls were used to detect bird SCC.
- Seasonal Relevance:
 - For the insect SCC summer is an ideal time for detection in the Cape region (SANBI, 2020).
 - Summer is an appropriate time for field detection of the avifaunal SCC. None of the birds SCC are migratory.
 - Potentially all the SCC can be active at the project site at the time of year the survey was undertaken.

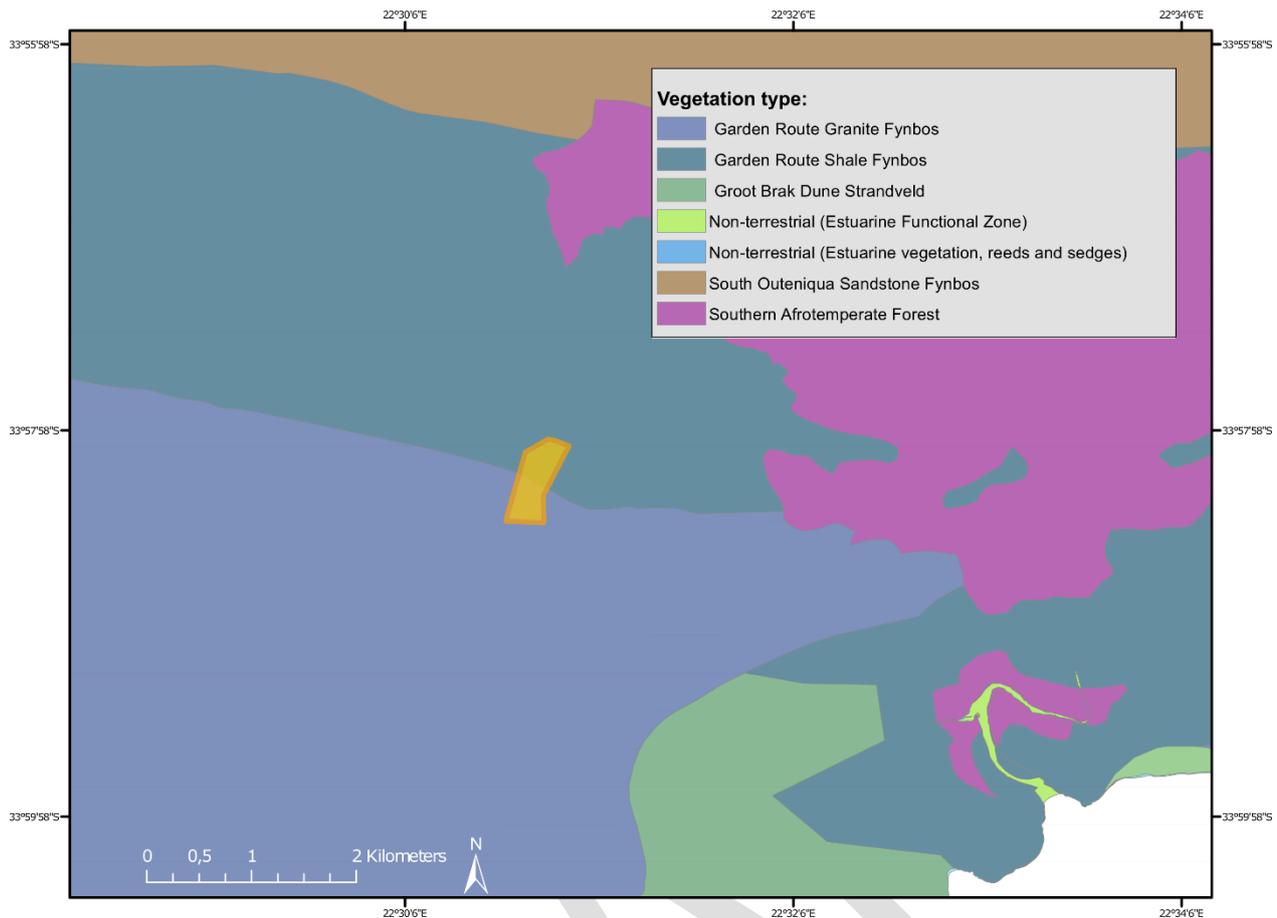


Figure 2: The vegetation types found at, and bordering, the project area (SANBI, 2018; Skowno et al., 2019).

Results

Desktop Study

The main vegetation types (SANBI, 2018; Skowno *et al.*, 2019) found at the project site are:

- Garden Route Shale Fynbos (Endangered)
- Garden Route Granite Fynbos (Critically Endangered)

Invertebrate Species of Conservation Concern

Aneuryphymus montanus (Brown 1960) Yellow-winged Agile Grasshopper

- This species of grasshopper is endemic to South Africa and has an IUCN Red List Category and Criteria of Vulnerable B2ab (iii,v) (Hochkirch *et al.*, 2018). Within South Africa, the species has a broad distribution occurring across mountainous habitats of the “Cape Region” from the north-western winter-rainfall areas near Clanwilliam, eastwards until just before East London (Brown, 1960).
- The species appears to be associated with several fynbos vegetation types (e.g. Leipoldtville Sand Fynbos, Kogelberg Sandstone Fynbos) and “south-facing cool slopes” (Kinvig, 2005).

- It has an estimated extent of occurrence of 172463 km² and its estimated geographic range overlaps the project area (Hochkirch, Bazelet and Danielczak, 2018).
- The species has not been recorded from the project area; the closest known record is approximately ~80 kms south-east for a specimen collected from South Swartberg Sandstone Fynbos.

Avian SCC

Stephanoaetus coronatus (Linnaeus, 1766) *Crowned Eagle*

- This species of raptor is widely distributed in Africa and Eurasia has an IUCN Red List Category of Near Threatened, but in South Africa its regional Red List Status is Vulnerable (Taylor et al., 2015; BirdLife International, 2023).
- This species is localised in the forests of the eastern and southern parts of South Africa (mostly the eastern coastal forests) and 800 adults are thought to occur (Taylor, et al. 2015).
- Natural prey is mainly mammals such as antelope, monkeys, and hyraxes (Taylor, et al. 2015), but birds such as Hadedas can also be taken (Shane McPherson, *pers comm.*).
- Although Crowned Eagles often favour exotic trees such as Eucalyptus for breeding (McPherson, Brown and Downs, 2016), this species has not been recorded breeding in the George urban edge since the 1980s when a pair used to nest at Saasveld, to the north-east of the study site. (Josh Kleyn pers. comm.).

Bradypterus sylvaticus (Sundevall, 1860) *Knysna Warbler*

- This species of warbler is endemic to South Africa occurring patchily along the southern coast from Cape Town to Mbumbazi Nature Reserve, KwaZulu-Natal.
- It has an IUCN Red List Category and Criteria of Vulnerable (B1ab(i,ii,iii,iv,v); C2a(i)) (Taylor, Peacock and Wanless, 2015; BirdLife International, 2022).
- It creeps around in thick undergrowth and tangles in forest, forest edges, and coastal thickets.
- When a forest becomes overshadowed by too many trees, this species will vacate the habitat as it prefers dense bush, which cannot grow in low light conditions. In recent years it has resorted to living in woodlands invaded by alien plants.
- The project area is in the core area of its distribution, but the suitable exotic tangles are too small and too disturbed to provide significant habitat for this species and it is not likely to occur on the site.

Amphibian SCC

Afrivalus knysnae (Loveridge, 1954) *Knysna Leaf-folding Frog*

- The Knysna Leaf-folding Frog is a small frog endemic to South Africa known from <10 localities between the Eastern and Western Cape Provinces; five historical sites appear no longer to exist or through habitat disturbance are no longer suitable (Minter *et al.*, 2004; IUCN SSC Amphibian Specialist Group and South African Frog Re-assessment Group (SA-FRoG), 2016; de Lange, 2019).
- It has an IUCN Red List Category and Criteria of Endangered B1ab(i,ii,iii,v)+2ab(i,ii,iii,v). It has an estimated extent of occurrence (EOO) of 816 km², and an Estimated area of occupancy (AOO)

of 27.11 km². Its estimated geographic range overlaps the project area (IUCN SSC Amphibian Specialist Group and South African Frog Re-assessment Group (SA-FRoG), 2016).

- It is found across a coastal mosaic of vegetation types, including mountain fynbos heathland and Afromontane Forest and occurs at altitudes up to 500 m.
- It breeds in small and shallow (~50 cm) semi-permanent still water bodies with soft-leaved hydrophytes. The water needs to be of high quality: clear and of a minimal depth, temperature, and size, although much is still unknown about the species habitat requirements and biology. The substrate of the water bodies is usually compacted. Size of known breeding localities vary in size from ~1ha to 20 m².
- Species in this genus deposit between 20 and 50 eggs on vegetation above water, folded in a leaf. The male folds/rolls a leaf with his hindlegs, following oviposition and fertilisation, excreting an adhesive substance, and enclosing the eggs within. There appears no clear choice of leaf type requirements or preference between indigenous and exotic plant species.
- The species is threatened by habitat loss and transformation from coastal urban and recreational development, forestry, and agriculture (Minter *et al.*, 2004; IUCN SSC Amphibian Specialist Group and South African Frog Re-assessment Group (SA-FRoG), 2016).
- The distribution of the species is severely fragmented, and population numbers appear to be declining.

Mammal SCC

Sensitive species 8

- This species of mammal is endemic to Africa and has an IUCN Red List Category and Criteria of Least Concern and a South African regional red list of Vulnerable B2ab(ii, ii, v) + C1a(i). [**Please Note: Citations for published literature related to this sensitive species have been withheld to protect its identity and can be requested from the author of this report if needed].
- Within South Africa, the species appears to be declining due to forest habitat loss from urban development, mining and increasing poaching and hunting with domestic dogs.
- The estimated area of occupancy (AOO) ranges from 1,415–2,858 km², but this SCC has very short dispersal distances (< 1km) between forest patches; habitat fragmentation is therefore a key consideration for this SCC.
- They occur predominantly within coastal forests, thickets, and dense coastal bush, but can occupy modified habitats and areas of mixed land use. They forage in open areas in forest glades but require dense underbrush to rest or take cover.
- Historical records extracted from virtual museums, and more recent records from citizen science online platforms, are known for this SCC from close to the project site (e.g. a July 2020 spoor record from approximately 2.3 kms north-west of the project site).

Chlorotalpa duthieae (Broom, 1907) *Duthie's golden mole*

- This species of golden mole is endemic to South Africa and has an IUCN Red List Category and Criteria of Vulnerable B1ab(iii)+2ab(iii) (Bronner, 2015). It has an estimated extent of occurrence (EOO) of 14000 km² and an estimated area of occupancy (AOO) of 144 km². It occurs along an approximately 275 km narrow coastal band from Wilderness to Port Elizabeth. It's EOO overlaps the project area.

- The populations around Port Elizabeth occur in agricultural pasture fields and urban gardens. The western populations occur in Southern Afrotemperate Forests.
- The species favours sandy loam and alluvial sands and constructs shallow subsurface foraging tunnels that radiate outwards from under the roots of trees where it makes a nest. It forages at night, feeding on species feed mainly on invertebrates, especially earthworms, and other insects/larvae (Bronner, 2015; Pinheiro *et al.*, 2018)
- The species appears to be locally common in Southern Cape Afrotemperate Forest habitats, and adjacent pasturelands, cultivated lands and gardens, but no quantitative data on population numbers is currently available.
- Threats include habitat disturbance and fragmentation owing to urban and agricultural development of coastal habitats, which has led to population fragmentation. Loss of indigenous forest by plantations, timber harvesting, and predation by domestic pets are also listed as threats (Glenn, 2006; Bronner, 2015).
- Taxonomic problems within *Chlorotalpa* on the south coast obscure the certainty around the exact distribution of this species.

Site Visit

- The weather was warm and sunny, conducive to insect and other faunal activity.
- The site was investigated spanning the proposed development areas (Figure 3- Figure 17).
- Habitat characteristics and likelihood of any of the SCC being found around each picture site is given below.



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Figure 3 The north-eastern parts of the site are heavily infested with *Eucalyptus* that is being removed. From a faunal perspective such disturbed areas are considered as Low Sensitivity. [GPS: 33°58'6.29" S 22°30'52.91" E].



Figure 4. Dense alien tree infestations in the northern part of the site. [GPS: 33°58'10.01" S 22°30'52.64" E].



Figure 5. Clearing of alien trees reveals the extremely disturbed habitat of the project area. [GPS: 33°58'11.1" S 22°30'51.86" E].



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Figure 6. Weedy alien plant species grow in the disturbed areas seen across the project area. [GPS: 33°58'11.14" S 22°30'51.88" E].



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Figure 7. Maize planted in the disturbed ground, suggesting previous ploughing and crop cultivation within the project area. [GPS: 33°58'13.78" S 22°30'50.54" E].



Figure 8. Large indigenous trees and lawns near the original farmhouse. [GPS: 33°58'16.77" S 22°30'46.99" E].



Figure 9. A few small ponds near the farmhouse; these areas are of potential sensitivity and would ideally require a small buffer. [GPS: 33°58'17.25" S 22°30'46.86" E].



Figure 10. Open fields in the northern part of the site. Although potentially suitable for Duthie's golden mole, the long history and high degree of disturbance and habitat transformation have most likely displaced this species from the project area. [GPS: 33°58'17.65" S 22°30'47.61" E].



Figure 11. Heavy infestation of weedy shrubs and grasses. [GPS: 33°58'16.78" S 22°30'46.7" E].



Figure 12. Faunal specialists searching the site for tunnelling evidence of Golden Moles (right) and sweep netting the disturbed habitat for the grasshopper SCC (right). [GPS: 33°58'16.5" S 22°30'46.15" E].



Figure 13. The grassy north-eastern part of the site; this area has been heavily transformed from its natural fynbos habitat. [GPS: 33°58'15.92" S 22°30'45.35" E].



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Figure 14. The river valley is heavily disturbed and invaded by several invasive plant species; this habitat must be cleared of alien plants and restored as it potentially can create a faunal corridor to natural forest habitat to the north and east. [GPS: 33°58'8.46" S 22°30'52.66" E].

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Figure 15. Houses with trees and small ponds; the small ponds are potentially of importance for frog and aquatic invertebrates and should be retained where possible. [GPS: 33°58'27.15" S 22°30'44.8" E].



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Figure 16. Ruined house with alien grasses near the southern end of the project area. [GPS: 33°58'27.23" S 22°30'46.57" E].

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Conclusions

- This statement concerning the Terrestrial Animal Species Compliance Statement is applicable to the project area shown in Figure 1, and as described in the documentation provided to me by SES.
- Based on the available information on all SCCs' distributions, their known habitat preferences, the heavily transformed and disturbed habitat of most sections of the project development area, it is considered that the project (preferred Alternative A) will be of overall **low sensitivity** for the faunal SCC assessed.
- The project area has historical occurrences of vegetation habitat that would support the Yellow-winged Agile Grasshopper (*Aneuryphymus montanus*). However, the habitat is heavily disturbed and transformed and **unlikely to support** viable populations of this SCC.
- The far northern parts of the project area borders the Outeniqua Mountains Important Bird Area (Marnewick et al., 2015).
- There is a **low likelihood** that the Knysna Warbler (*Bradypterus sylvaticus*) is found at the project site, although it should occur in the natural forest habitat to the north of the project area.
- There is a **low likelihood** that the site is significant for Crowned Eagle (*Stephanoaetus coronatus*) due the disturbed nature of the site. While it is possible that the bird might occasionally move through the site or adjacent areas, there is currently no indication that the bird breeds in the area or even that the site can support enough prey for this species.
- There is a very **low likelihood** that the site is significant for the Knysna Leaf-folding Frog (*Afrixalus knysnae*). The small, artificial aquatic habitats (ponds) appear not to offer significant habitat for the frog.
- There is a **low to medium likelihood** that Sensitive species 8 is found at the project site associated with the stream habitat. It is also considered that the impact on this species will be **low** due to the highly disturbed nature of the project area and that any indigenous suitable habitat has been replaced with gums and other invasive plants; the natural forested areas (Southern Afrotropical Forest) north would offer preferred habitat for this SCC.
- There is a **low likelihood** that *Duthie's golden mole* (*Chlorotalpa duthieae*) would occur at the project area. The highly disturbed and transformed habitat, including evidence of well-established dense gums and past ploughing and crop growing, would have most likely displaced this species from the project area.
- Within the proposed development, areas of faunal sensitivity are associated with:
 - Small aquatic habitats (ponds) (Figures 9). Although these appear to be artificial, they appear well-established and may offer habitat for several frog, damselfly and dragonfly species, and other aquatic invertebrates. A ~20m proposed buffer line is recommended to prevent undue disturbance of these aquatic habitats.
 - The stream running on the western boundary is clogged with several invasive plant species. This habitat must be cleared of invasive alien plants, and the riparian habitat restored. Potentially the stream and associated small valley could form an important faunal corridor with the Swarts River and associated

habitat, particularly for Sensitive Species 8 and the Knysna Warbler. The proposed buffer of preferred Alternative A should prevent undue disturbance of the stream and riparian habitat. From the conceptual layout (Appendix 3), The stream habitat and valley fall outside of the development footprint and will be retained as 'natural vegetation'. Therefore, this offers an opportunity to restore this habitat with indigenous vegetation, which will allow for faunal connectivity to the north and east of the project area (See Figure 25 in Colville and Cohen's (2023) Terrestrial Biodiversity Compliance Statement).

- No fencing plan was provided as part of the conceptual plans; however, a fencing plan will be required that does not unduly block faunal movement.
- If the above concerns can be accommodated, then this faunal compliance statement of **low sensitivity** will hold.

Acknowledgments

CapeNature is thanked for collecting permits: CN44-87-20545 and CN44-59-13497. Josh Kleyn and Ludwig Muller are thanked for discussions about local bird and mammal distributions, respectively.

References

- BirdLife International (2022) *Species factsheet: *Bradypterus sylvaticus**. BirdLife International (2022) *IUCN Red List for birds*. Downloaded from <http://www.birdlife.org> on 31/10/2022.
- BirdLife International (2023) *Species factsheet: *Stephanoaetus coronatus**. Downloaded from <http://www.birdlife.org> on 16/02/2023.
- Bronner, G. (2015) *Chlorotalpa duthieae*. *The IUCN Red List of Threatened Species 2015*: e.T4768A21285581.
- Brown, H. D. (1960) 'New Grasshoppers (Acridoidea) from the Great Karroo and the South Eastern Cape Province', *Journal of the Entomological Society of South Africa*, 23, pp. 126–143.
- Glenn, C. R. (2006) *Earth's Endangered Creatures - Duthie's Golden Mole Facts (Online) - Licensed article from Wikipedia: The Free Encyclopedia*. Accessed 2/19/2023 at <http://earthsendangered.com/>.
- Hochkirch, A., Bazelet, C. and Danielczak, A. (2018) *Aneuryphymus montanus*. *The IUCN Red List of Threatened Species 2018*: e.T116114515A116116590. Available at: dx.doi.org/10.2305/IUCN.UK.2018-1.RLTS.T116114515A116116590.en.
- IUCN SSC Amphibian Specialist Group and South African Frog Re-assessment Group (SA-FRoG) (2016) *Afrivalus knysnae*. *The IUCN Red List of Threatened Species 2016*: e.T56065A77160768.
- Kinvig, R. G. (2005) *Biotic indicators of grassland condition in Kwazulu-Natal, with management recommendations*. University of KwaZulu-Natal.
- de Lange, F. (2019) *Breeding biology and ecological niche of the Knysna leaf-folding frog (*Afrivalus knysnae*)*. North-West University. Available at: <http://repository.nwu.ac.za/handle/10394/33848>.
- Marnewick, M. D. et al. (2015) *South Africa's Important Bird and Biodiversity Areas Status Report 2015*. Johannesburg: BirdLife South Africa.
- McPherson, S. C., Brown, M. and Downs, C. T. (2016) 'Crowned eagle nest sites in an urban landscape: requirements of a large eagle in the Durban metropolitan Open Space System', *Landscape and Urban Planning*, 146, pp. 43–50.
- Minter, L. et al. (2004) *Atlas and Red Data book of the frogs of South Africa, Lesotho and Swaziland*. SI/MAB Series no. 9. Smithsonian Institution and the Avian Demography Unit.
- Pinheiro, C. et al. (2018) 'Comparative gastrointestinal morphology of seven golden mole species (Mammalia: Chrysochloridae) from South Africa', *Journal of Morphology*, 279(12), pp. 1776–1786. doi: 10.1002/jmor.20900.
- SANBI (2018) 'South African National Biodiversity Institute (2006– 2018)', in Mucina, L., Rutherford, M.C. and Powrie, L. W. (ed.) *The Vegetation Map of South Africa, Lesotho and Swaziland*. Version 20. Available at: <http://bgis.sanbi.org/SpatialDataset/Detail/18>.
- Skowno, A. L. et al. (2019) *South African National Biodiversity Assessment 2018 Technical Report Volume 1: Terrestrial Realm*. South African National Biodiversity Institute, Pretoria. <http://hdl.handle.net/20.500.12143/6370>.
- South African National Biodiversity Institute (SANBI) (2020) *Species Environmental Assessment Guideline. Guidelines for the implementation of the Terrestrial Fauna and Terrestrial Flora Species*

Protocols for environmental impact assessments in South Africa. South African National Biodiversity Institute, Pretoria. V.

Taylor, M. R., Peacock, F. and Wanless, R. M. (2015) *The 2015 Eskom Red Data Book of birds of South Africa, Lesotho and Swaziland.*

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Appendix-1 CV Jonathan Colville

CURRICULUM VITAE – JONATHAN F. COLVILLE

EDUCATION

PhD (Zoology): University of Cape Town, 2009. Thesis title: “*Understanding the evolutionary radiation of the megadiverse monkey beetle fauna (Scarabaeidae: Hopliini) of South Africa*”.

Postdoctoral research fellowship: South African National Biodiversity Institute, 2009–2010.

PRIOR EMPLOYMENT

National Research Foundation Research Career Advancement Fellow: South African National Biodiversity Institute (2014–2019).

Researcher, South African National Biodiversity Institute, GEF/UNEP/FAO Global Pollination Project – South Africa (2010–2014).

PUBLICATIONS

Books edited:

- Allsopp, N., **Colville, J.F.**, Verboom, G.T. (2014). *Fynbos: Ecology, Evolution, and Conservation of a Megadiverse Region* (16 chapters; pp 1–377). Oxford University Press.

Book chapters:

- Forest F., **Colville J.F.**, Cowling R.M. (2018). Evolutionary diversity patterns in the Cape Flora of South Africa. *In: Phylogenetic Diversity: Applications and challenges in biodiversity science*. R. Scherson, D. Faith (Eds), Springer International Publishing.
- Lebuhn, G., Connor, E.F., Brand, M., **Colville, J.F.**, Keday, D., Resham, B.T., Muo, K., Ravindra, K.J. (2015). Monitoring pollinators around the world. *In: Pollination services to agriculture*. B. Gemmill-Herren (Ed), Routledge.
- Colville, J.F.**, Potts, A.J., Bradshaw, P.L., Measey, G.J., Snijman, D., Picker, M.D., Procheş, Ş., Bowie, R.C.K., Manning, J.C. (2014). Floristic and faunal Cape biochoria: do they exist? *In: Fynbos: Ecology, Evolution, and Conservation of a Megadiverse Region*. N. Allsopp, J.F. Colville, G.A. Verboom (Eds), Oxford University Press.
- Lach, L., Picker, M.D., **Colville, J.F.**, Allsopp, M.H., and Griffiths, C.L. (2002). Alien invertebrate animals in South Africa. *In: Biological invasions: Economic and environmental costs of alien plant, animal, and microbe species*. D. Pimentel (Ed), CRC Press, London.

Journal articles:

- Barraclough, D.A., and **Colville, J.F.** (2022). The first species of Nemestrinidae (Diptera) endemic to Madagascar: A remarkable new species of *Atriadops* Wandolleck, 1897. *Zootaxa*. 5196 (1): 145–150.
- Dombrow, H., **Colville, J.F.**, Bowie, R.C.K. (2022). Review of the genus *Amblymelanoplia* Dombrow, 2002 (Coleoptera: Scarabaeidae: Melolonthinae: Hopliini) with the description of ninety-three new species from South Africa and observations on its biogeography and phylogeny. *Zootaxa*. 5163 (1): 1–278.
- Melin, A., and **Colville, J.F.** (2022). Description of the male of *Rediviva steineri* Kuhlmann 2012 (Hymenoptera: Melittidae), an endemic oil-collecting bee species from South Africa. *African Entomology*. 30: e11178.
- Allen-Perkins, A., Magrath, A., Dainese, M., Garibaldi, L., ... **Colville, J.F.**, et al. (2022). CropPol: A dynamic, open, and global database on crop pollination. *Ecology*. 103, 3, e3614.

- Dorchin, N.; van Munster, S.; Klak, C.; Bowie, R.C.K.; **Colville, J.F.** (2022). Hidden diversity – A new speciose gall midge genus (Diptera: Cecidomyiidae) associated with succulent Aizoaceae in South Africa. *Insects*. 13, 75. <https://doi.org/10.3390/insects13010075>
- Cohen, C., Liltved, W.R., **Colville, J.F.**, Shuttleworth, A., Weissflog, J., Svatos, A., Bytebier, B., Johnson, S.D. (2021). Sexual deception of a beetle pollinator through floral mimicry. *Current Biology*. 31: 1–8.
- Krenn, H.W., Karolyi, F., Lampert, P., Melin, A., **Colville, J.F.** (2021). Nectar uptake of a long-proboscid *Prosoeca* fly (Nemestrinidae) – Proboscis morphology and flower shape. *Insects*. 12(371): 1–13.
- McLeod, L., and **Colville, J.F.** (2021). Observations on unusual feeding and mating behaviour of a monkey beetle genus *Amblymelanoplia* Dombrow (Coleoptera: Scarabaeidae: Hopliini). *African Entomology*. 29(1): 301–306.
- **Colville, J.F.**, Beale, C.M., Forest, F., Altwegg, R., Huntley, B., Cowling, R.M. (2020). Plant species richness, turnover and evolutionary diversity track gradients of stability and ecological opportunity in a megadiversity centre. *Proceedings of the National Academy of Sciences (PNAS)*. 117 (33): 20027–20037.
- Dombrow, H. & **Colville, J.F.** (2020). Review of the genus *Beckhoplia* Dombrow with the description of fifteen new species from South Africa and observations on its biogeography (Coleoptera: Scarabaeidae: Melolonthinae: Hopliini). *Zootaxa*. 4823(1): 1–64.
- Melin, A., Altwegg, R., Manning, J.C., and **Colville, J.F.** (2020). Allometric relationships shape foreleg evolution of long-legged oil bees (Melittidae: *Rediviva*). *Evolution*. <https://doi.org/10.1111/evo.14144>.
- Melin, A. & **Colville, J.F.** (2020). A nesting aggregation of *Rediviva intermixta* (Melittinae: Melittidae) with males sleeping together in nests (Namaqualand, South Africa). *The Journal of the Kansas Entomological Society*. 92 (3): 561–568.
- Melin, A., **Colville, J.F.**, Duckworth, G.D.; Altwegg, R.; Slabbert, R.; Midgley, J.J.; Rouget, M.; Donaldson, J.S. (2020). Diversity of pollen sources used by managed honeybees in variegated landscapes. *Journal of Apicultural Research*. [Doi10.1080\00218839.2020.1750757](https://doi.org/10.1080/00218839.2020.1750757).
- Melin, A., Krenn, H.W., Manning, J.C., **Colville, J.F.** (2019). The allometry of proboscis length in Melittidae (Hymenoptera: Apoidea) and an estimate of their foraging distance using museum collections. *PLoS ONE*. 14(6): e0217839.
- Melin, A. & **Colville, J.F.** (2019). A review of 250 years of Southern African bee taxonomy and exploration (Hymenoptera: Apoidea: Anthophila). *Transactions of the Royal Society of South Africa*. 74:1, 86–96. **[Featured on Cover Page]**
- Rink, A.R., Altwegg, R., Edwards, S., Bowie, R.C.K., **Colville, J.F.** (2019). Contest dynamics and assessment strategies in combatant monkey beetles (Scarabaeidae: Hopliini). *Behavioural Ecology*. 40: 713–723.
- Barraclough, D., **Colville, J.F.**, Karolyi, F., Krenn, H.W. (2018). A striking new species of *Prosoeca* Schiner, 1867 (Diptera: Nemestrinidae): An important pollinator from the Bokkeveld Plateau, Northern Cape Province, South Africa. *Zootaxa* 4497: 411–421.
- **Colville, J.F.**, Picker, M.D., Cowling, R.M. (2018). Feeding ecology and sexual dimorphism in a speciose flower beetle clade (Hopliini: Scarabaeidae). *PeerJ*: 6:e4632.
- Melin, A., Mathieu, R., **Colville, J.F.**, Midgley, J.J., Donaldson, J.S. (2018). Quantifying and evaluating distributed floral resources for managed honeybee pollination using an expanded concept of supporting ecosystem services. *PeerJ*: e5654.
- Cowling, R.M., Bradshaw, P.L., **Colville, J.F.**, Forest, F. (2017). Levyns' Law: Explaining the evolution of a remarkable longitudinal gradient in Cape plant diversity. *Transactions of the Royal Society of South Africa*. 72: 184–201.
- Treurnicht M., **Colville J.F.**, Joppa L.N., Huyser O., Manning J.C. (2017) Counting complete? Finalising the plant inventory of a global biodiversity hotspot. *PeerJ*: 5:e2984.

- Janion-Scheepers, C., Measey, G.J., Braschler, B., Chown, S.L., Coetzee, L., **Colville, J.F.**, Dames, J., Davies, A.B., *et al.* (2016). Soil biota in a megadiverse country: Current knowledge and future research directions in South Africa. *Pedobiologia*. 59: 129-174.
- Karolyi F., Hansal T., Krenn H.W., **Colville J.F.** (2016). Comparative morphology of the mouthparts of the megadiverse South African monkey beetles (Scarabaeidae: Hopliini): Feeding adaptations and guild structure. *PeerJ*: 4:e1597.
- Bradshaw, P.L., **Colville, J.F.**, Linder, H.P. (2015). Optimising regionalisation techniques: Identifying centres of endemism in the extraordinarily endemic-rich Cape Floristic Region. *PLoS ONE*. 10: e0132538.
- Cowling, R.M., Potts, A.J., Bradshaw, P.L., **Colville, J.F.**, Arianoutsou, M., Ferrier, S., Forest, F., Fyllas, N.M., Hopper, S.D., Ojeda, F., Procheş, Ş., Smith, R.J., Rundel, P.W., Vassilakis, E., Zutta, B.R. (2015). Variation in plant diversity in Mediterranean-climate ecosystems: The role of climatic and topographical stability. *Journal of Biogeography*. 42: 552-564.
- Kleijn, D., Winfree, R., Bartomeus, I., Carvalheiro, L.G., Henry, M., Isaacs, R., Klein, A-M., Kremen, C., M'Gonigle, L.K., Rader, R., Ricketts, T., Williams, N.M., Adamson, N-L, Ascher, J.S., Baldi, A., Batary, P., Benjamin, F., Biesmeijer, J.C., Blitzer, E.J., Bommarco, R., Brand, M.R., Bretagnolle, V., Button, L., Cariveau, D.P., Chifflet, R., **Colville, J.F.**, Danforth, B.N., Elle, E., Garratt, M.P.D., Herzog, F., Holzschuh, A., Howlett, B.G., Jauker, F., Jha, S., Knop, E., Krewenka, K.M., Le Feon, V., Mandelik, Y., May, E.M., Park, M.G., Pisanty, G., Reemer, M., Riedinger, V., Rollin, O., Rundlof, M., Sardinias, H.S., Scheper, J., Sciligo, A.R., Smith, H.G., Steffan-Dewenter, I., Thorp, R., Tscharrntke, T., Verhulst, J., Viana, B.F., Vaissiere, B.E., Veldtman, R., Westphal, C., Potts, S.G. (2015). Delivery of crop pollination services is an insufficient argument for wild pollinator conservation. *Nature Communications*. 6: 7414.
- Manning, J.C., Goldblatt, P., **Colville, J.F.**, Cupidoa, C.N. (2015). Hopliine beetle pollination in annual *Wahlenbergia* species (Campanulaceae) from western South Africa, and the new species *W. melanops*. *South African Journal of Botany*. 100: 58-62.
- Mecenero, S., Altwegg, R., **Colville, J.F.**, Beale, C.M. (2015). Roles of spatial scale and rarity on the relationship between butterfly species richness and human density in South Africa. *PLoS ONE*. 10: e0124327.
- Forest, F., Goldblatt, P., Manning, J.C., Baker, D., **Colville, J.F.**, Devey, D.S., Jose, S., Kaye, M., Buerki, S. (2014). Pollinator shifts as trigger of speciation in painted petal irises (*Lapeirousia*: Iridaceae). *Annals of Botany*. 113: 357-71.
- Karolyi, F., **Colville, J.F.**, Handschuh, S., Metscher, B.D., Krenn, H.W. (2014). One proboscis, two tasks: Adaptations to blood-feeding and nectar-extracting in long-proboscid horse flies (Tabanidae, *Philoliche*). *Arthropod Structure & Development*. 43: 403-413.
- Karolyi, F., Morawetz, L., **Colville, J.F.**, Handschuh, S., Metscher, B.D., Krenn, H.D. (2013). Time management and nectar flow: Flower handling and suction feeding in long-proboscid flies (Nemestrinidae: *Prosoeca*). *Naturwissenschaften*. 100: 1083-1093. **[Featured on Cover Page]**
- Ryan, P.G., **Colville, J.F.**, Picker, M.D. (2013). Juvenile African Pipit feeding on monkey beetles. *Ornithological Observations*. 4: 6-8.
- Karolyi, F., Szucsich, N.U., **Colville, J.F.**, Krenn, H.W. (2012). Adaptations for nectar-feeding in the mouthparts of long-proboscid flies (Nemestrinidae: *Prosoeca*). *Biological Journal of the Linnean Society*. 107: 414-424.
- Picker, M.D., **Colville, J.F.**, Burrows, M. (2012). A cockroach that jumps. *Biology Letters*. 8: 390-392.
- **Colville, J.F.** (2009). Understanding the evolutionary radiation of the mega-diverse monkey beetle fauna (Scarabaeidae: Hopliini) of South Africa. *Frontiers in Biogeography*. 1: 24-29.
- Bohn, H., Picker, M.D., Klaus-Dieter, K. & **Colville, J.F.** (2010). A jumping cockroach from South Africa, *Saltoblattella montistabularis*, gen. nov., spec. nov. (Blattodea: Blattellidae). *Arthropod Systematics & Phylogeny*. 68: 53-69. **[Featured as a "Top 10 New Species discovery" by the International Institute for Species Exploration]**.

- **Colville, J.F.**, Picker, M.D., Cowling, R.M. (2002). Species turnover of monkey-beetles (Scarabaeidae: Hopliini) along environmental and disturbance gradients in the Namaqualand region of the Succulent Karoo, South Africa. *Biodiversity and Conservation*. 11: 243–264.
- Picker, M.D., **Colville, J.F.**, van Noort, S. (2002). Mantophasmatodea now in South Africa. *Science*. 297: 1475.

Technical reports:

- **Colville, J.F.**, and Cohen, C. (2022). Terrestrial Animal Species Specialist Assessment. Grace Rock Equestrian Farm. Prepared for Delta Ecology and Legacy Environmental Management Consulting.
- **Colville, J.F.**, and Cohen, C. (2022). Terrestrial Animal Species Specialist Assessment. Dana Bay Access Road. Prepared for Sharples Environmental Services cc (SES).
- **Colville, J.F.**, and Cohen, C. (2022). Terrestrial Biodiversity Specialist Assessment. Duyker Eiland Prospecting Rights. Prepared for Elemental Sustainability (Pty) Ltd.
- **Colville, J.F.**, and Cohen, C. (2022). Terrestrial Animal Species Specialist Assessment. Proposed mixed use housing development. Prepared for EcoSense CC.
- **Colville, J.F.**, and Cohen, C. (2022). Terrestrial Animal Species Specialist Assessment. Proposed agricultural development. Prepared for McGregor Environmental Services.
- **Colville, J.F.**, and Cohen, C. (2022). Terrestrial Animal Species Specialist Assessment. Blue Sky's Project Prepared for Doug Jeffery – Environmental Consultants.
- **Colville, J.F.**, and Cohen, C. (2022). Terrestrial Animal Species Specialist Assessment. Proposed Expansion of Nature's View Dam near Citrusdal. Prepared for Earth Grace Environmental Consultancy.
- **Colville, J.F.** (2021). Terrestrial Animal Species Specialist Assessment. Proposed enlargement of existing Kleigat Dam. Prepared for Earth Grace Environmental Consultancy.
- **Colville, J.F.** (2021). Terrestrial Animal Species Specialist Assessment. Moorreesburg Wastewater Treatment Works Upgrade Project. Prepared for Zutari (Pty) Ltd.
- **Colville, J.F.** (2021). Terrestrial Animal Species Specialist Assessment. Maxnau Citrus Development. Prepared for Charl de Villiers Environmental Consulting.
- **Colville, J.F.** (2021). Terrestrial Animal Species Specialist Assessment. Gletwyn Estate Mixed Use Development. Prepared for Johan Neethling Environmental Services cc.
- **Colville, J.F.** (2021). Terrestrial Animal Species Specialist Assessment. Moorreesburg Wastewater Treatment Works Upgrade Project. Prepared for Zutari (Pty) Ltd.
- **Colville, J.F.** (2021). Terrestrial Animal Species Specialist Assessment. Proposed Development of Solar Photo-Voltaic Renewable Energy Power Station. Prepared for Resource Management Services (RMS).
- **Colville, J.F.** & Picker, M.D. (2009–2010). *Invertebrate impact assessment – Oudekraal, Table Mountain*. Prepared for Doug Jeffery Environmental Consultants.
- Picker, M.D. & **Colville, J.F.** (2007). *Invertebrate impact assessment: Worcester Island Development*. SRK Environmental impact report for Consulting Engineers and Scientists, Cape Town.
- Picker, M.D. & **Colville, J.F.** (2006). *Baseline faunal investigation for proposed development at Altona, Worcester, Western Cape Province*. Environmental impact report for SRK Consulting Engineers and Scientists, Cape Town.
- **Colville, J.F.** & Picker, M.D. (2005). *Scoping Phase II: The impact of development of Worcester on the insect and scorpion fauna*. Environmental impact report for Chand Environmental Consultants, Cape Town.
- **Colville, J.F.** (2001) *Scoping and faunal assessment for proposed housing development, Skapenberg, Somerset West*. Prepared for Design consultants CNdV Africa.

MEMBERSHIPS/RESEARCH ASSOCIATE

- Membership of Entomological Society of Southern Africa (2007–current).
- Membership of Lepidopterists Society of Southern Africa (2014–current).
- Honorary Research Associate (HRA), Statistics in Ecology, Environment and Conservation (SEEC), Department of Statistical Sciences, UCT (2014–current).
- SACNASP registration for Ecological Science (Professional Natural Scientist) (member#: 134759).

PROFESSIONAL SERVICES

- Editorial board *African Entomology* (2010–current).
 - Editorial board *Metamorphosis* (2017–current).
 - Editorial board *PeerJ* (2019–current).
 - CAPE Invasive Alien Animal (IAA) Working Group (2016–2018).
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Appendix-2 CV Callan Cohen

ABRIDGED CURRICULUM VITAE DR CALLAN COHEN

Education

PhD in Ornithology (Zoology), University of Cape Town, 2011.

Positions held:

Director: Birding Africa. 1997 – present.

Research Associate: FitzPatrick Institute of African Ornithology, Department of Biological Sciences, University of Cape Town. 2012 – present.

Experience

Acknowledged expert on African birds, based on over 1000 field trips, research studies and surveys from 1990 to present, in over 25 African countries, but focused largely across South Africa. First author of 2 books on African birds, and contributor to almost 10 others. Also publications and reports on Odonata, Lepidoptera, Herpetology and Botany.

Selected Books

Cohen, C., Spottiswoode, C. & Rossouw, J. 2006. **Southern African Birdfinder: where to find 1400 species in southern Africa and Madagascar**. Cape Town: Struik New Holland Publishers, 456 pp. Reprinted 2007, 2012, 2022.

Cohen, C. & Spottiswoode, C. 2000. **Essential Birding in Western South Africa: Key routes from Cape Town to the Kalahari**. Cape Town: Struik New Holland Publishers, 136 pp. Reprinted 2001.

Klaas-Douwe B. Dijkstra & **Callan Cohen**. 2021. **Dragonflies and Damselflies of Madagascar and the western Indian Ocean Islands**. Association Vahatra Antananarivo, Madagascar. 198 pages.

Contributed 20 species accounts in: Harrison, J.A., Allan, D.G., Underhill, L.G., Herremans, M., Tree, A.J., Parker, V. & Brown, C.J. (Eds). 1997. **The Atlas of Southern African Birds**. Johannesburg: BirdLife South Africa.

Contributed 10 species accounts in: Hockey, P.A.R., Dean, W.R.J. & Ryan, P.G. (Eds). 2005. **Roberts' Birds of Southern Africa**. Seventh edition. Cape Town: John Voelcker Bird Book Fund.

Contributor to Red Data Book on Birds: BARNES, K.N. (ed.) 2000. **Threatened Birds of South Africa, Lesotho and Swaziland**. Johannesburg: BirdLife South Africa.

Species account written: African Marsh Harrier

Other Publications

About 100 journal articles and over 50 reports, e.g. most recent:

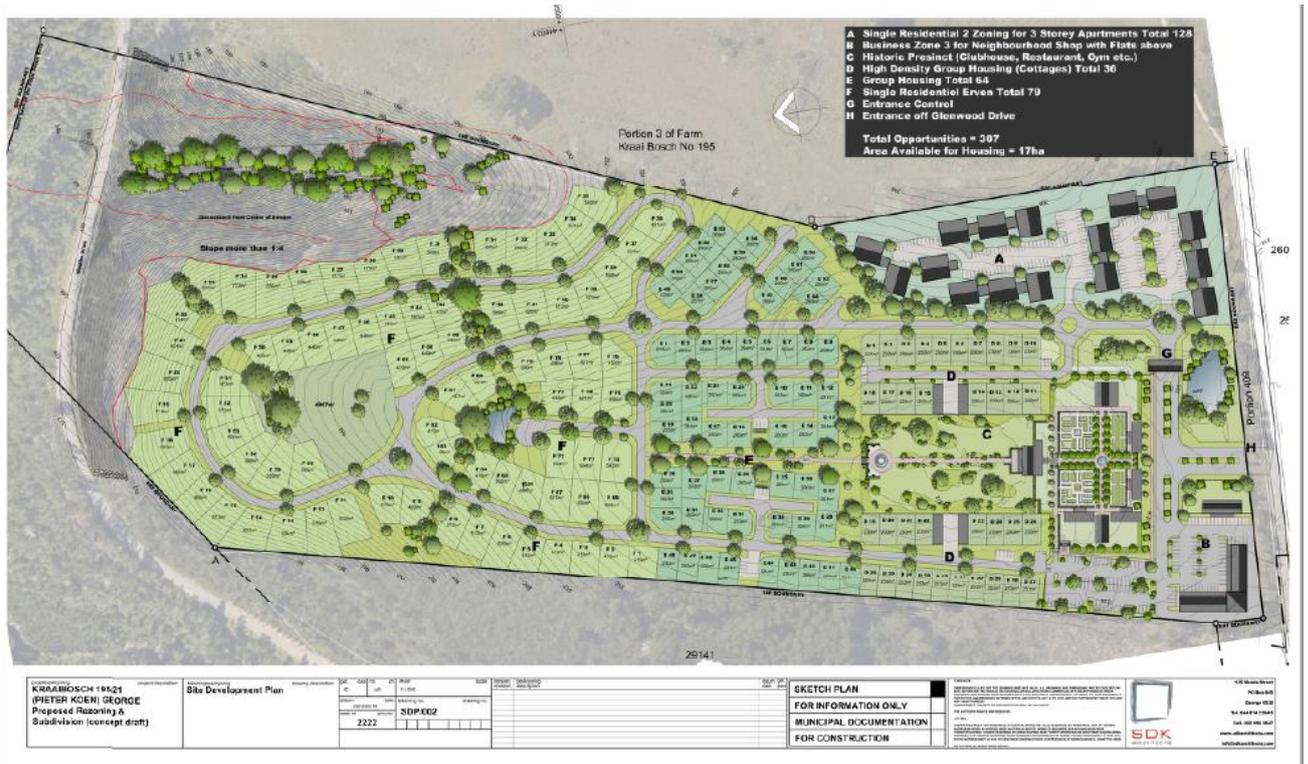
Cohen, C. 2021. **Deciphering South Africa's first Crested Honey Buzzard**. African Birdlife 9(4): 26-29.

Cohen, C., N. J. Collar, A. Dagnee, L. D. C. Fishpool, S. J. Marsden, C. N. Spottiswoode & S. R. Wotton. 2021. **Status of Taita Falcon *Falco fasciinucha* in Ethiopia and the identification problem posed by African Hobby *F. cuvierii***. Bull ABC Vol 28 No 2: 225-233

Mills, Michael S. L., Julian Francis, Nik Borrow, Nigel Redman, Washington Wachira and **Callan Cohen**. 2021. **English bird names in common use: a framework to achieve a stable world list despite ongoing taxonomic changes, and a call to establish a broad-based African Bird Names Committee**. Bull ABC Vol 28 No 1: 93-98.

Appendix-3 Conceptual layout

Conceptual project diagramme as given by SES for preferred Alternative A:



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