

Faunal Assessment: SSVR & Compliance Statement

**Proposed Poultry Rearing Facility on the Remainder of Farm 225,
Grootvlei, Caledon, Western Cape Province**

Compiled for: PHS Consulting

Farm 225 Grootvlei

October 2025



Jonathan Colville
Terrestrial Ecologist
&
Faunal Surveys



**Birding
Africa**

Report Information

Document name	Farm 225 Grootvlei: Faunal Sensitivity Report
Number of pages:	30
Authors involved in compiling this report:	Jonathan Colville (PhD) – Terrestrial Ecologist & Faunal Surveys Callan Cohen (PhD) – Birding Africa
Authors contact details:	Email: jonathan.colville@gmail.com Phone: +27 83 564 5050 Email: callan@birdingafrica.com Phone: +27 83 256 0491
Document version:	1.0

Citation

Colville, J.F. & Cohen, C. 2025. Faunal Sensitivity Report for the Proposed Poultry Rearing Facility on the Remainder of Farm 225, Grootvlei, Caledon, Western Cape Province. 11 October 2025.

Table of Contents

Report Information.....	2
Table of Contents	3
List of Figures.....	5
Specialist Details	6
Conditions Pertaining to this Report	8
Introduction.....	9
Terms of Reference	10
Assumptions and Limitations	10
Site Sensitivity Verification.....	10
Methodology	11
Desktop Study.....	11
Site Visit	12
Results	12
Desktop Study.....	12
Invertebrate SCC.....	16
Bird SCC.....	16
Site Visit	17
Conclusions.....	19
Acknowledgments.....	19
References	20
Appendix-1 – CV Jonathan Colville.....	22
Appendix-2 – CV Callan Cohen	27

Appendix-3 – SDP	28
Appendix-4 – EWT comment – Blue Crane	29

List of Figures

Figure 1: Location of the proposed development and its regional context in the Western Cape Province.....	9
Figure 2: Sensitivity map (animal species sensitivity) of the proposed development area, as classified by the National Web-based Screening Tool.....	11
Figure 3: The vegetation types found at, and bordering, the project site (South African National Biodiversity Institute (SANBI), 2024).	13
Figure 4: Land cover derived terrestrial habitat change layer overlaid onto the project site (Skowno, 2020). All natural vegetation at the project site has been lost pre-1990.....	14
Figure 5: The project site falls over an area that is has no natural remnants for any Red Listed Ecosystem type (South African National Biodiversity Institute and Department of Forestry Fisheries and the Environment, 2022).	14
Figure 6: The project site does not fall over any Critical Biodiversity Area (CBA1), as identified by the Western Cape Biodiversity Spatial Plan (CapeNature, 2024).	15
Figure 7: The project area (red dot) in relation to Important Bird Area identified for South Africa (Marnewick <i>et al.</i> , 2015).	15
Figure 8: The project area has been completely cleared of all natural vegetation.	17
Figure 9: The project site fall within an extremely large area of intensive agriculture.	18
Figure 10: Looking towards the Blue Crane breeding areas one can see that the area consists of highly modified landscape with intensive agriculture.	18

Specialist Details

Specialist Details Jonathan Colville -- Terrestrial Ecologist & Faunal Surveys	
Company Name	Jonathan Colville -- Terrestrial Ecologist & Faunal Surveys
Email Address	jonathan.colville@gmail.com
Telephone	+27 (0) 83 564 5050
Highest Qualification	PhD Zoology University of Cape Town 2009
SACNASP Reg. No.	134759
Areas of Specialisation	Terrestrial faunal ecology and conservation

Jonathan Colville of Terrestrial Ecologist & Faunal Surveys has over fifteen 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, he was involved with the South African National Biodiversity Institute's (SANBI) Biodiversity, Research, Assessment and Monitoring Division (BRAM) undertaking ecological and conservation research on South Africa's terrestrial biodiversity. Since 2020 he has been operating as a faunal specialist for EIAs and conservation projects. He is SACNASP registered as a terrestrial ecologist (Reg. No. 134759) and is an Honorary Research Associate with the Centre for Statistics in Ecology, the Environment and Conservation (SEEC) at UCT. An [abridged CV](#) is provided below in Appendix 1.

Specialist Details Callan Cohen -- Birding Africa	
Company Name	Birding Africa
Email Address	callan@birdingafrica.com
Telephone	+27 83 256 0491
Highest Qualification	PhD Ornithology University of Cape Town 2011
Areas of Specialisation	Ornithology, Ecology, Odonata, Lepidoptera

Callan Cohen (Director of Birding Africa) is a recognised international expert on African birds. He has a PhD in Ornithology from the University of Cape Town where he is an Honorary 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 (Barnes, 2000). He has also published several books, scientific papers, and reports on Odonata, Lepidoptera, Herpetology, and Botany. He has over 30 years of experience of bird field surveys. He has over 30 years of experience of bird field surveys. An [abridged CV](#) is provided below in Appendix 2.

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.

A handwritten signature in black ink, reading "J.F. Colville." The signature is written in a cursive style with a period at the end.

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 and Callan Cohen reserve the right to modify the report in any way deemed fit should new, relevant, or previously unavailable or undisclosed information becomes known to them from on-going research or further work in this field, or pertaining to this investigation, and they will inform PHS Consulting accordingly. This report must not be altered or added to without the prior written consent of Jonathan Colville/Callan Cohen. 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.

Introduction

PHS Consulting has been engaged to undertake a Basic Assessment for a proposed development of a poultry rearing facility on the remainder of Farm 225, Grootvlei, near Caledon (Western Cape Province). See Appendix 3 for proposed Spatial Development Plan.

An online site sensitivity report was generated by PHS using the National Web based Environmental Screening Tool (<https://screening.environment.gov.za/screeningtool/>). The screening tool uses faunal species data provided by the South African National Biodiversity Institute (SANBI).

The Screening Tool rated the development footprint of the above project as overall **Medium** sensitivity for the animal species sensitivity theme. One animal Species of Conservation Concern (SCC) was flagged, with possible suitable habitat for:

- One insect species:
 - Yellow-winged Agile Grasshopper (*Aneuryphymus montanus*): **Medium** Sensitivity.

In addition, the Endangered Wildlife Trust (EWT) indicated some concern around possible disturbance from the proposed development on three breeding sites of Blue Crane (*Anthropoides paradiseus*) located approximately over 1 km north-east in agricultural fields on the adjacent Farm 752 (see Appendix 4).

Jonathan Colville and Callan Cohen were appointed through PHS Consulting to assess the faunal (including Blue Crane) sensitivity and provide a report in compliance with GN 1150 of 2020 for the animal theme.

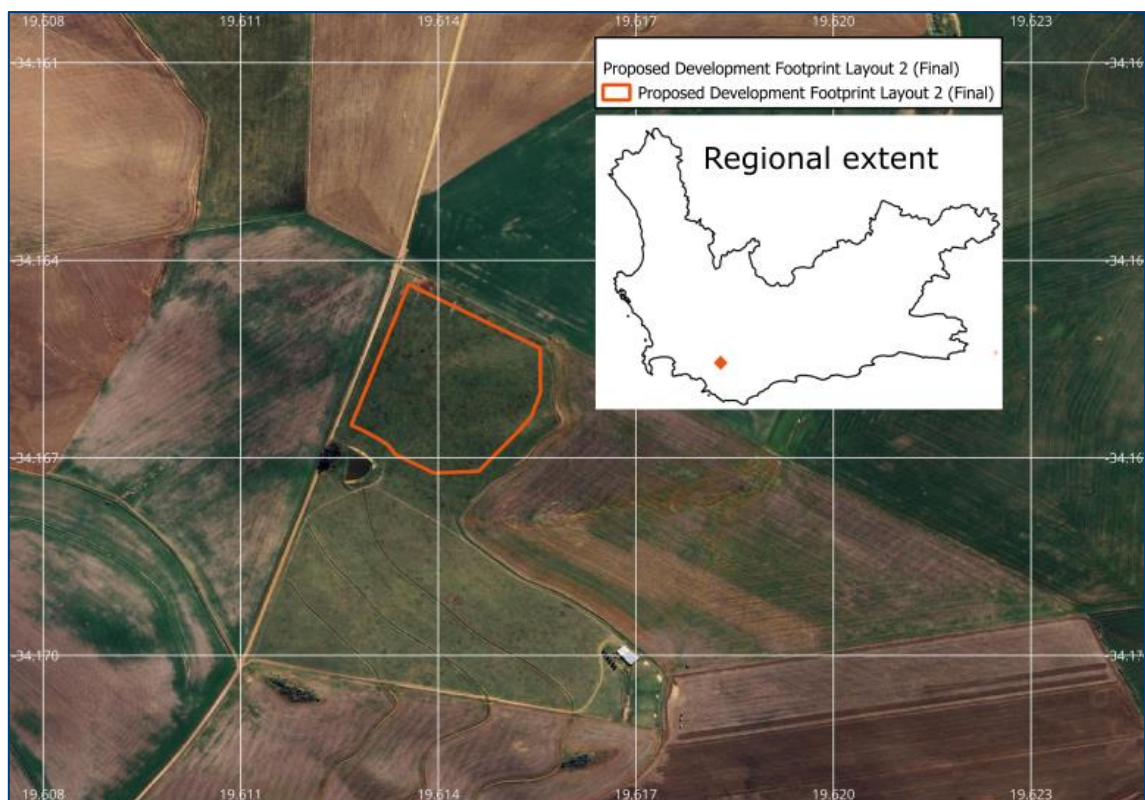


Figure 1: Location of the proposed development and its regional context in the Western Cape Province.

Terms of Reference

Jonathan Colville and Callan Cohen were appointed on 24 July 2025 to conduct a Site Sensitivity Report, including a desktop study and a site visit to assess the site sensitivity and the possibility of suitable available habitat for the faunal SCC at the project area. 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 the grasshopper SCC has been recorded at or near the project area and to ascertain if the habitat requirements of the SCC occur at the site.
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 grasshopper SCC and potential impact of the proposed development on the Blue Crane breeding sites.
3. Prepare a report detailing the findings of the desktop study and site visit, confirming, or disputing the animal sensitivity theme as identified by the screening tool, and the issuing of an Animal Species Compliance Statement or a recommendation that an 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.
- The site was visited during spring (end-August 2025). Seasonality is not considered as important as this site sensitivity assessment relied on surveying and assessing broad habitat features and utilising ecosystem-level data, such as intact vegetation type, and known habitat and distributional records for faunal SCC.
- This scoping assessment was undertaken based on the information provided to date by PHS Consulting for the proposed development.

Site Sensitivity Verification

The screening tool indicated "**Medium**" sensitivity for the listed grasshopper SCC. The site visit revealed that the site is in a highly disturbed ecological condition with no remaining natural vegetation. The site is also situated within a large area of intense agriculture. The nature of the site and its suitability as habitat for faunal SCC is discussed in the remainder of the report.

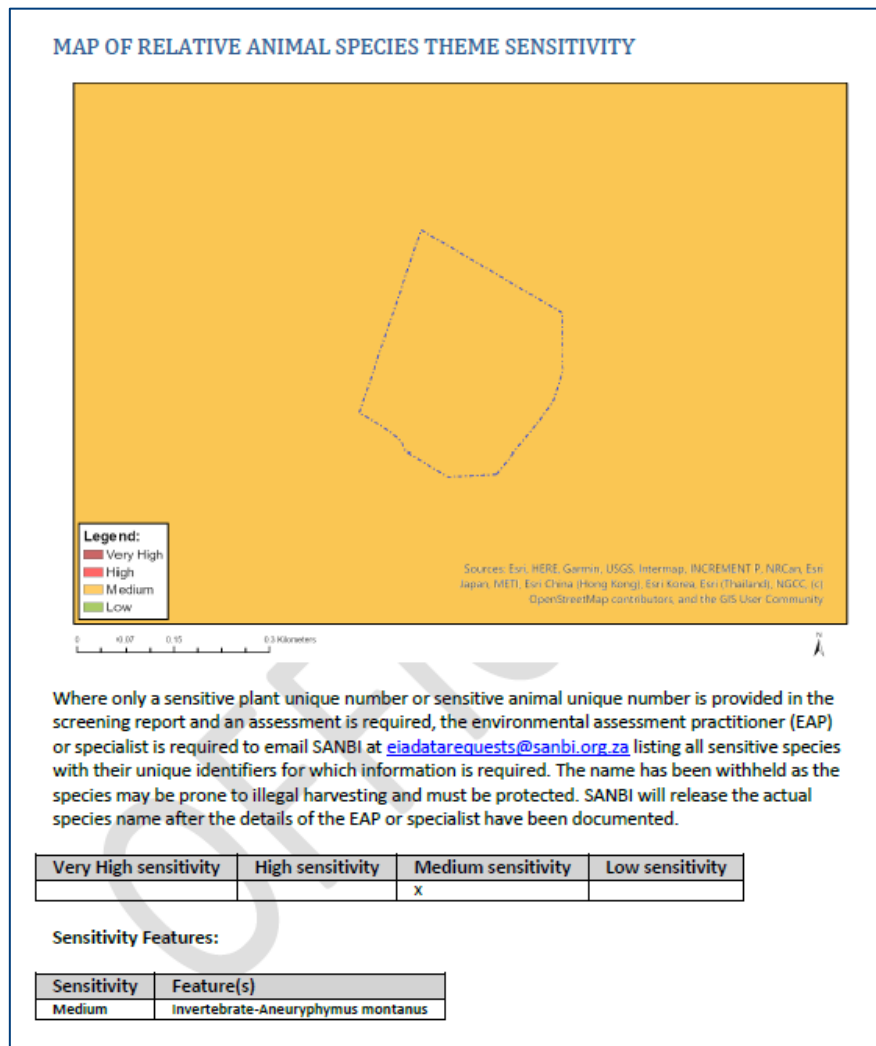


Figure 2: Sensitivity map (animal species sensitivity) of the proposed development area, as classified by the National Web-based Screening Tool.

Methodology

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

Desktop Study

- Ecosystem-level data and broad-scale habitat was assessed using the following resources:
 - Vegetation Map of South Africa (South African National Biodiversity Institute (SANBI), 2024).
 - Land cover based habitat modification (Skowno, 2020).
 - Ecosystem Threat Status and Protection level of South Africa's ecosystems (Skowno *et al.*, 2019; Department of Forestry, Fisheries and the Environment, 2023).
 - Maps generated by overlaying the project site onto GIS files were carefully examined to compare to what was observed in the field.

- The Western Cape Biodiversity Spatial Plan 2023 (CapeNature, 2024).
- Distributional records for insect 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 Orthoptera Species File Online (<http://orthoptera.speciesfile.org/HomePage/Orthoptera/HomePage.aspx>), the Atlas of African Lepidoptera (<https://vmus.adu.org.za/>), GBIF (<https://www.gbif.org/>), and iNaturalist (<https://www.inaturalist.org/>) were also consulted for information on geographic distributions of invertebrate and other faunal SCC.
- IUCN Red List of Threatened Species (<https://www.iucnredlist.org/>) was consulted for the grasshopper SCC flagged for the project.
- Taylor, Peacock and Wanless (2015) and online resources, such as BirdLife International (<https://www.birdlife.org/projects/iucn-red-list/>), were consulted for information on the conservation status of the Blue Crane.
- 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.
- Published information on all grasshopper SCC and Blue Crane were investigated to further assess their distribution range, ecology, habitat, and any life history requirements.

Site Visit

- The project site (Figure 1) was surveyed 31 August 2025 to assess habitat quality, in terms of the type and amount of natural vegetation remaining. The extent of disturbance that the project area has, and is experiencing, in terms of changes to its vegetation and physical properties (e.g. soil) was also considered.
- Season: Spring.
- The project site was investigated by the specialists and the likelihood of the grasshopper SCC being present was considered.
- Seasonal Relevance:
 - It must be noted that this site sensitivity report focussed primarily on surveying the state of the habitat quality at the project area and its connectivity to surrounding natural vegetation and to areas of known biodiversity and conservation importance.

Results

Desktop Study

The main vegetation types found at the project site (Figure 3) is:

- Western Ruens Shale Renosterveld (**Critically Endangered**)

Based on landcover models, the project area is considered to have lost all its natural vegetation pre-1990 (Skowno, 2020) (Figure 4). The project area falls across an ecosystem type with a South African Red List of Ecosystems Status of **Critically Endangered**; however, no natural remnants of

this ecosystem type remain at the project site or in the broader surrounding area (Figure 5) (South African National Biodiversity Institute and Department of Forestry, 2021). The project area does not fall over any areas classed as a Critical Biodiversity Area (Figure 6) (CapeNature, 2024).

The project site falls approximately 3.5 kms north of the Overberg Wheatbelt Important Bird Area (Figure 7) (Marnewick et al., 2015).

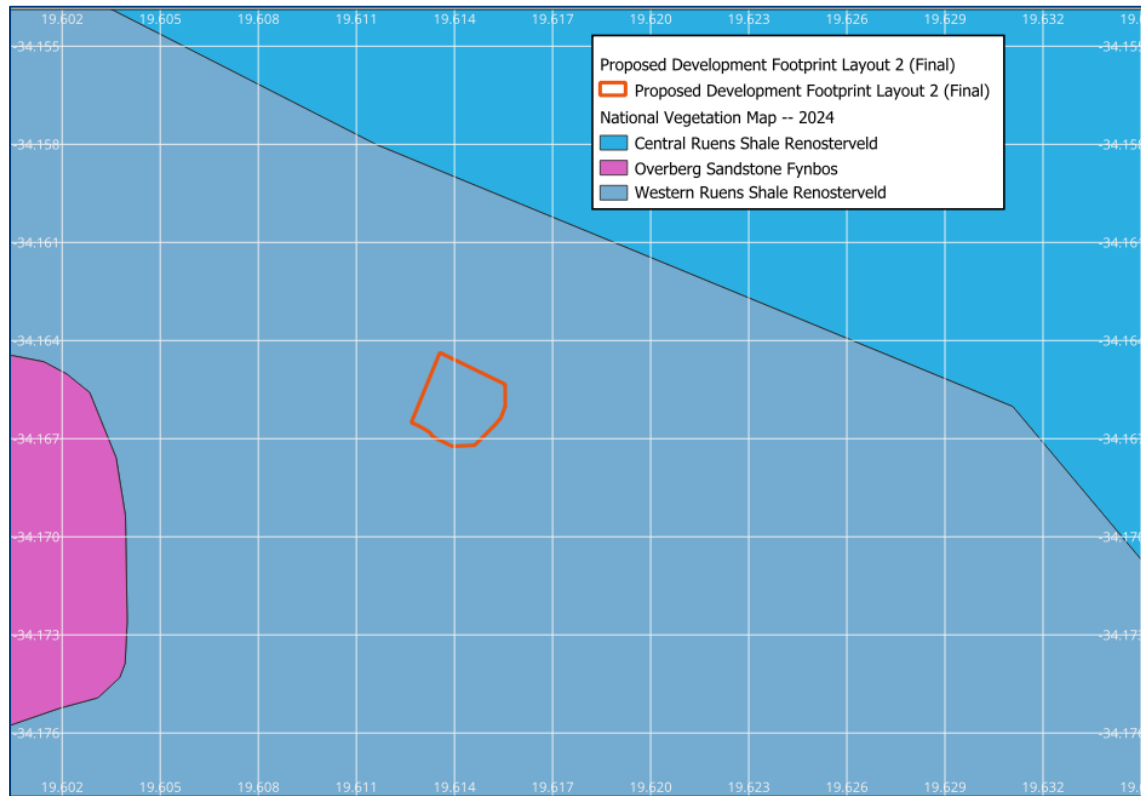


Figure 3: The vegetation types found at, and bordering, the project site (South African National Biodiversity Institute (SANBI), 2024).

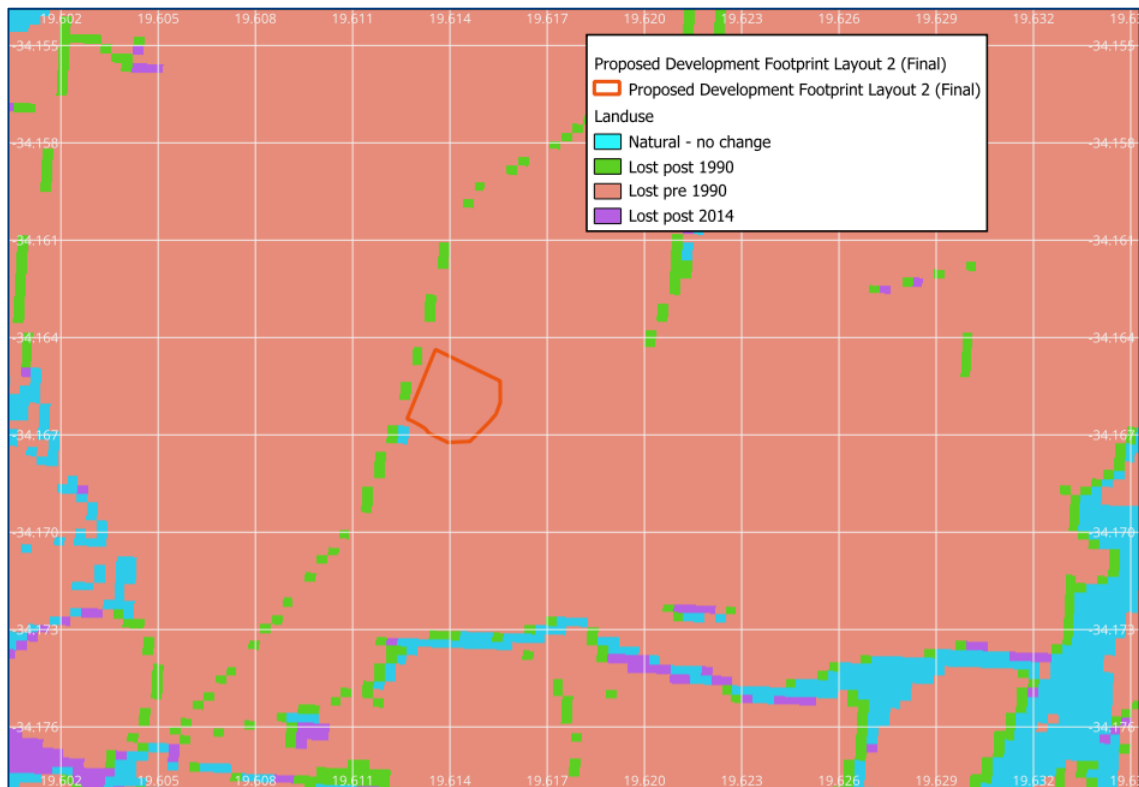


Figure 4. Land cover derived terrestrial habitat change layer overlaid onto the project site (Skowno, 2020). All natural vegetation at the project site has been lost pre-1990.

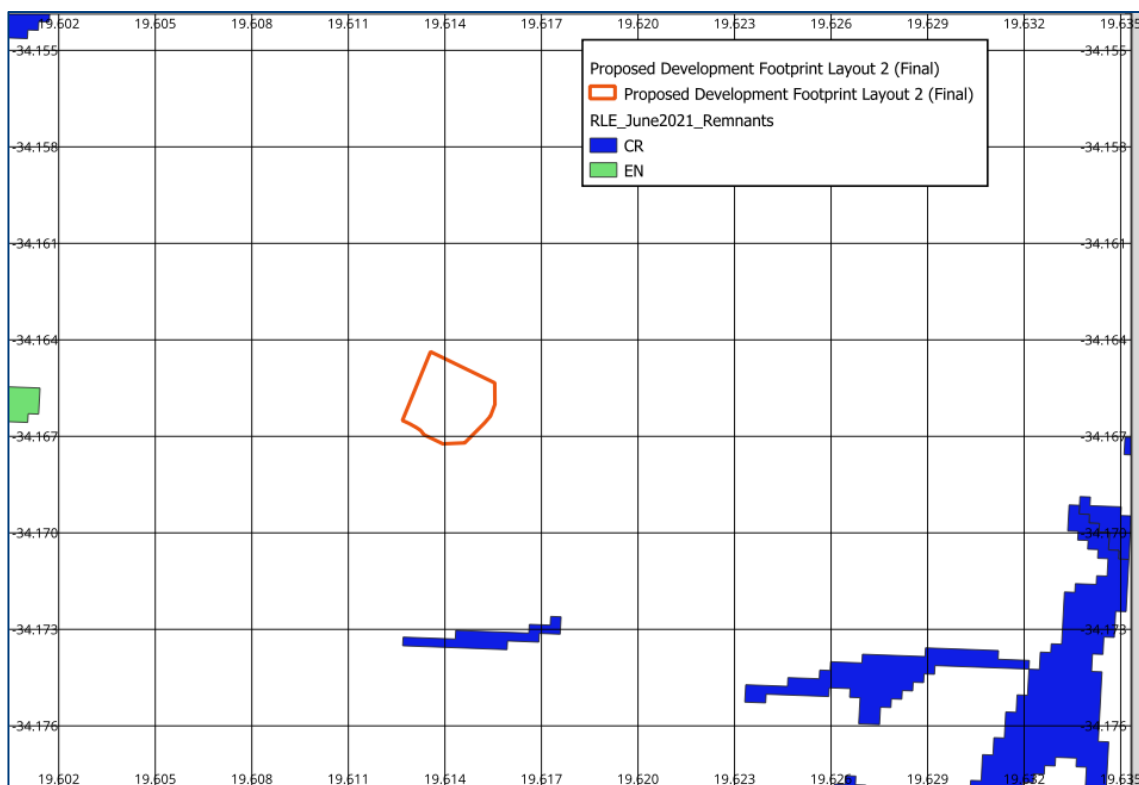


Figure 5. The project site falls over an area that has no natural remnants for any Red Listed Ecosystem type (South African National Biodiversity Institute and Department of Forestry Fisheries and the Environment, 2022).

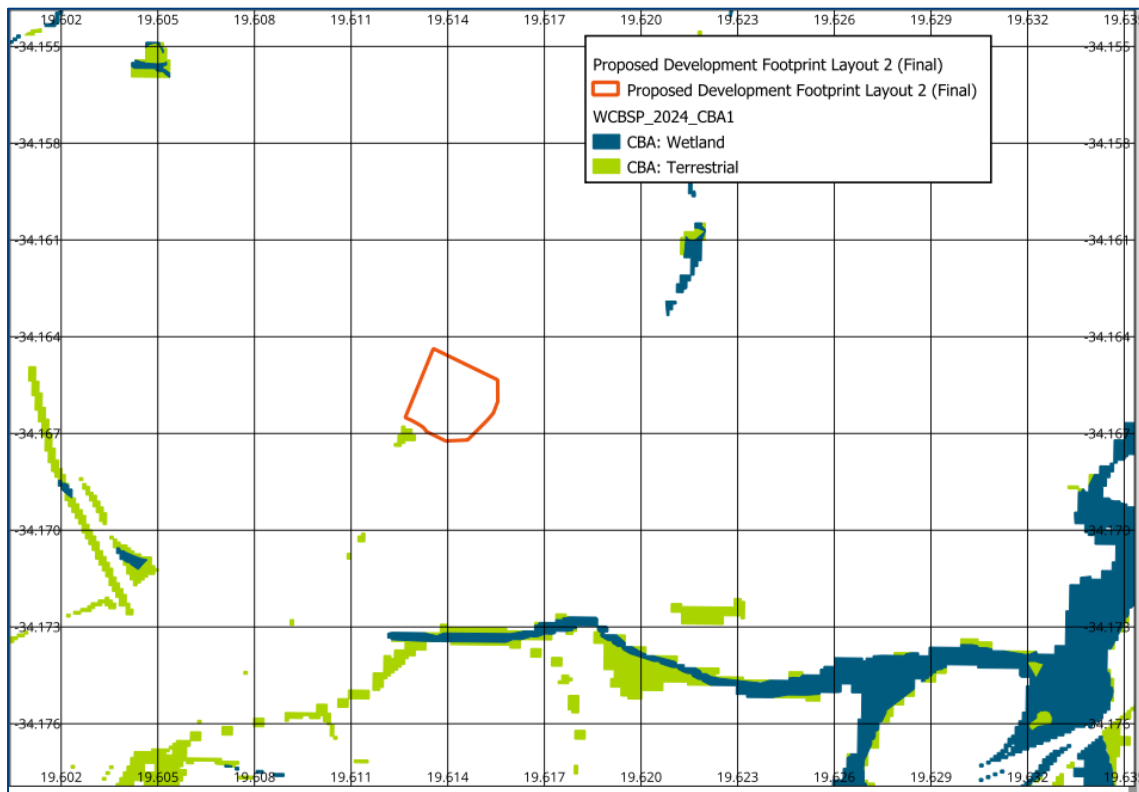


Figure 6. The project site does not fall over any Critical Biodiversity Area (CBA1), as identified by the Western Cape Biodiversity Spatial Plan (CapeNature, 2024).

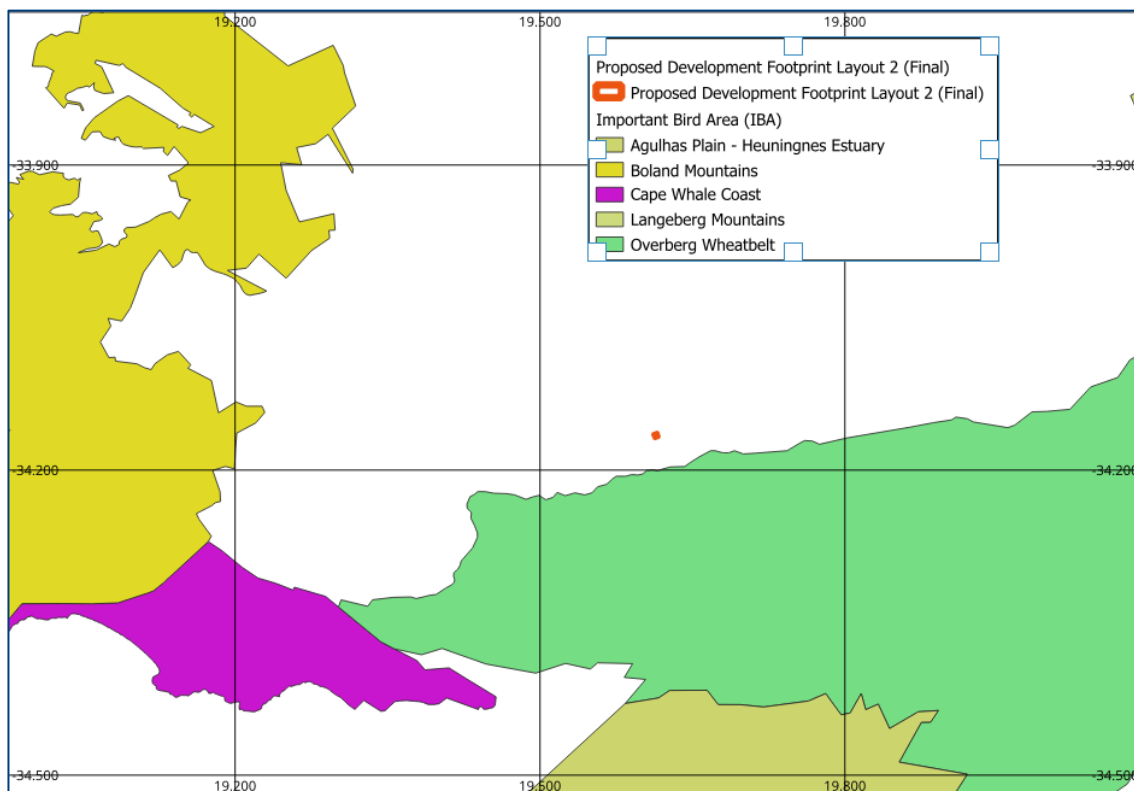


Figure 7. The project area (red dot) in relation to Important Bird Area identified for South Africa (Marnewick et al., 2015).

Invertebrate SCC

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, Bazelet and Danielczak, 2018).
- Within South Africa, the species has a broad distribution occurring across mountainous habitats of the “Cape Region” 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 a large estimated extent of occurrence of 172463 km² and its estimated geographic range overlaps the project area (Bazelet and Naskrecki, 2014).
- The species has not been historically recorded from near the project area; the closest known record is approximately 65 kms westwards for a collection record from Kogelberg Sandstone Fynbos.
- The almost complete lack of any natural vegetation at the project site precludes this species from occurring at the project site.

Bird SCC

Anthropoides paradiseus (Lichtenstein AAH, 1793) Blue Crane

- This species is near-endemic to South Africa and has an Regional Red List Category of **Near Threatened** and a Global listing as **Vulnerable** (Taylor, Peacock and Wanless, 2015; BirdLife International, 2021).
- Historically, Blue Cranes occurred mainly in the grassland biome. However, with the replacement of natural fynbos and renosterveld vegetation with wheat and dryland pastures in the Swartland and Overberg, the distribution and demographics of the Blue Crane population has changed dramatically, with the largest numbers of Blue Cranes now found in these artificial habitats within the Western Cape, and which now comprises the bulk of the global population (Morrison, Scott and Shaw, 2019).
- After initial increases in the Overberg population size (13% annually for 17 years to 2010), the population size has now declined by 4% per year between 2011–2019. The reasons for this decline are not known at this stage (Craig, 2024).
- Blue Crane breeds between August and April, peaking in November in South Africa. Unusually for the species, in the Western Cape breeding coincides with the dry season and breeding sites are located in agricultural habitats.
- Blue Cranes in the Western Cape appear mostly resident although with high local movement (Van Velden *et al.*, 2017). There also appears to be nest fidelity, with adult birds known to return to their natal sites (Van Velden *et al.*, 2017; Craig, 2024).
- The timing of breeding coincides with harvesting activities on farms in the Overberg, increasing the risk of eggs being crushed by machinery, and/or disturbance of adults from the nest (McCann, Theron and Morrison, 2007).

Site Visit

- The project site is in very poor ecological condition with no suitable habitat for the insect SCC.
- The project site is found just over a kilometre away from the closest EWT identified Blue Crane breeding site. The area between the project site and the breeding sites consists of an area of intensive agriculture.



Figure 8. The project area has been completely cleared of all natural vegetation.



Figure 9. The project site fall within an extremely large area of intensive agriculture.



Figure 10. Looking towards the Blue Crane breeding areas one can see that the area consists of highly modified landscape with intensive agriculture.

Conclusions

- The information in this report is applicable to the project area shown in Figure 1, and as described in the documentation provided to date to us by PHS Consulting.
- Observations from the site visit indicated the project area consists of completely disturbed natural habitat, and it is considered from a faunal perspective as very low sensitivity.
- The flagged grasshopper SCC for the project site has a wide distributional range occurring across several different vegetation types; the heavily disturbed and completely transformed vegetation at the project site excludes this grasshopper SCC from occurring there.
- Considering the small size of the project area, the relatively large distance of the project area to the three breeding sites (> 1 km to the closest site, and almost 2 km to the furthest site), together with the likely high intensity of agricultural activities at the breeding site and in the immediate agricultural fields adjacent to the breeding sites during the summer months, it seems unlikely that the construction phase of the proposed project would impact the Blue Crane breeding. The Blue Crane breeding areas are more likely to be directly affected by practices on the farm itself where they breed.
- Overall, the proposed development is unlikely to generate significant negative impacts on the grasshopper SCC flagged, or on the breeding activities of the Blue Crane. It is the specialists' opinion that the proposed development will have an overall low significance on the insect and Blue Crane.

Acknowledgments

CapeNature is thanked for collecting permits: CN44-87-20545 and CN44-59-13497.

References

- Bazelet, C. S. and Naskrecki, P. (2014) *Conocephalus peringueyi*. The IUCN Red List of Threatened Species 2014: e.T20633594A43266622. Available at: <https://dx.doi.org/10.2305/IUCN.UK.2014-1.RLTS.T20633594A43266622.en>.
- BirdLife International (2021) *Species factsheet: Blue Crane Anthropoides paradiseus*. Downloaded from <https://datazone.birdlife.org/species/factsheet/blue-crane-anthropoides-paradiseus> on 27/09/2025.
- 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.
- CapeNature (2024) *2023 Western Cape Biodiversity Spatial Plan and Guidelines. Biodiversity Capabilities*, CapeNature. <https://www.capenature.co.za/western-cape-biodiversity-spatial-plan>.
- Craig, C. A. (2024) *Conservation in a Changing World: Assessing the Conservation Status of an Agriculturally Adapted Species, the Blue Crane*. Unpublished PhD Thesis. University of Cape Town.
- Department of Forestry Fisheries and the Environment (2023) *South Africa Protected Areas Database (SAPAD_OR_2022_Q4)*. Publication Date: 2023/04/21.
- Hochkirch, A., Bazelet, C. S. 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.
- Kinvig, R. G. (2005) *Biotic indicators of grassland condition in Kwazulu-Natal, with management recommendations*. University of KwaZulu-Natal.
- Marnewick, M. D. et al. (2015) *South Africa's Important Bird and Biodiversity Areas Status Report 2015*. Johannesburg: BirdLife South Africa.
- McCann, K., Theron, L.-J. and Morrison, K. (2007) 'Conservation priorities for the Blue Crane (*Anthropoides paradiseus*) in South Africa – the effects of habitat changes on distribution and numbers', *Ostrich*, 78, pp. 205–211.
- Morrison, K. L., Scott, A. and Shaw, K. (2019) *IUCN SSC Crane Specialist Group – Crane Conservation Strategy Species Review: Blue Crane (Anthropoides paradiseus)*.
- 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>.
- Skowno, A. L. (2020) *Land cover derived terrestrial habitat change map for South Africa (1990–2018)*. National Biodiversity Assessment: Technical Report. South African National Biodiversity Institute, Pretoria, South Africa.
- South African National Biodiversity Institute (SANBI) (2024) *Final National Vegetation Map (Shapefile) [Vector] 2024*.
- South African National Biodiversity Institute and Department of Forestry, F. and the E. (2021) *Red List of Terrestrial Ecosystems of South Africa June 2021 – version for public comments*. South African National Biodiversity Institute. Pretoria, South Africa.

South African National Biodiversity Institute and Department of Forestry Fisheries and the Environment (2022) *Red List of Terrestrial Ecosystems of South Africa November 2022 – original extent spatial data*. South African National Biodiversity Institute. Pretoria, South Africa.

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

Van Velden, J. L. *et al.* (2017) 'Movement patterns and survival estimates of Blue Cranes in the Western Cape', *Ostrich*, 88, pp. 33–43.

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.
- 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., Tscharntke, 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).
-

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 – SDP

As given by PHS Consulting:



Appendix-4 – EWT comment – Blue Crane



Blue Cranes at Groote Valley 225 farm, Theewaterskloof Local Municipality

Following a site visit to Mōreson 752 farm, we documented three Blue Crane *Anthropoides paradiseus* breeding sites as seen in Figure 1 below. Blue Cranes utilise the breeding territories for at least five months a year during the breeding season (from September to April) and can move throughout the day within the breeding territory. A flock of Blue Cranes is also known to be present on the farm throughout the winter.

Blue Cranes are sensitive to disturbance during breeding, disturbance can cause them to abandon their nests temporarily (leaving them vulnerable to predation) or permanently.

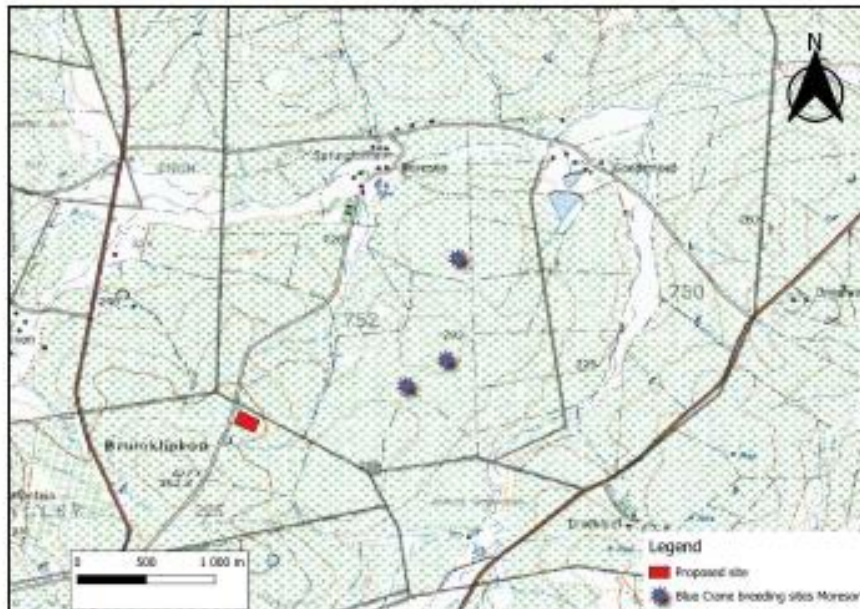


Figure 1. Location of the three Blue Crane breeding sites and the proposed site for the infrastructure that will be built for chicken farming

Physical Address: Plot 27 and 28 Austin Road, Glen Austin AH, Midrand, 1685
Gauteng, South Africa

Postal Address: Postnet Suite # 027, Postnet Suite 002, Private Bag X08, Wierda Park 0149
Gauteng, South Africa

Tel: +27(0)11 572 3800 Fax: +27(0)11 608 4882 Email: ewt@ewt.org.za Web: www.ewt.org.za

The Endangered Wildlife Trust is a non-profit, public benefit organisation dedicated to conserving species and ecosystems in southern Africa to the benefit of all people.

NPO Number: 015-502, PBO number: 930 001 777, Member of IUCN - The International Union for Conservation of Nature



The African Crane Conservation Programme of the Endangered Wildlife Trust would like to recommend that another site is selected further away from the current proposed site. This is due to possible disturbance during the breeding season and the close proximity to breeding territories. Barring this, disturbance to breeding cranes should be minimised during construction and operation of the facility.

Blue Cranes are globally *Vulnerable* according to the International Union for the Conservation of Nature (iucnredlist.org). Current research has shown that Blue Crane population numbers are declining in the Overberg region of the Western Cape, which is a stronghold for the species, it is vital to conserve this population.

Physical Address: Plot 27 and 28 Austin Road, Glen Austin AH, Midrand, 1685
Gauteng, South Africa
Postal Address: Postnet Suite # 027, Postnet Suite 002, Private Bag X08, Wierda Park 0149
Gauteng, South Africa

Tel: +27(0)11 372 3900 Fax: +27(0)11 608 4882 Email: ewt@ewt.org.za Web: www.ewt.org.za

The Endangered Wildlife Trust is a non-profit, public benefit organisation dedicated to conserving species and ecosystems in southern Africa to the benefit of all people.

NPO Number: 015-502, PBO number: 930 001 777, Member of IUCN - The International Union for Conservation of Nature