

## APPENDIX A – CURRICULUM VITAE

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## CONTACT DETAILS

<b>Name of Company</b>	<b>CES – Environmental and Social Advisory Services</b>
<b>Designation</b>	Centurion Branch
<b>Profession</b>	Environmental Consultant
<b>Years with firm</b>	1.5 Years
<b>E-mail</b>	<a href="mailto:a.gouws@cesnet.co.za">a.gouws@cesnet.co.za</a>
<b>Office number</b>	+27 (0)10 045 1372
<b>Nationality</b>	South African
<b>Professional Affiliations</b>	<ul style="list-style-type: none"><li>• South African Council for Natural Scientific Professions (SACNASP) (<i>Cand.Sci.Nat</i> 121901)</li><li>• International Association of Impact Assessment (IAIAsa)</li></ul>
<b>Key areas of expertise</b>	<ul style="list-style-type: none"><li>• Environmental Authorisations</li><li>• Geographical Information Systems (GIS)</li><li>• Ecological Impact Assessments</li><li>• Database Management</li></ul>

## PROFILE

### Mr Aidan Gouws

Aidan obtained his MSc in Environmental Science (*Cum laude*) from Rhodes University, having conducted research on the spatio-temporal dynamics of *Acacia dealbata* invasions and broader land-use and cover changes in the northern Eastern Cape, funded through a study bursary awarded by the Agricultural Research Council (ARC). Prior to this, he obtained his BSc Honours in Geographical and Environmental Sciences (*Cum laude*) from the University of Pretoria, studying plant ecology and EIA methodology amongst others. He is also member of the Golden Key Honours Society. Aidan joined CES in 2018 and has been involved in several projects, including Basic Assessments, Full Scoping and Environmental Impact Assessments, Environmental Audits and Resettlement Action Plan (RAP) Audits. He works from the Centurion office and his interests include the general Environmental Impact Assessment (EIA) process, GIS mapping, ecological studies and database management. Aidan is registered with the South African Council for Natural Scientific Professions (SACNASP) as a Candidate Natural Scientist (*Cand.Sci.Nat.* 121901) and with the International Association for Impact Assessments (IAIA).

**EMPLOYMENT  
EXPERIENCE**

**Environmental Consultant - Coastal and Environmental Services (Centurion)**  
*July 2018-Current*

- Responsible for conducting a range of environmental studies in the broad fields of Environmental Impact Assessment and Environmental Management.
- Sourcing small to medium projects by preparing proposals under supervision.
- Taking responsibility for Basic Assessments, and small projects under the guidance and supervision of a more senior staff member.
- Taking responsibility for specialist ecological, database management and GIS tasks when required

**Volunteer – Khulisa Social Solutions (Johannesburg)**  
*May 2018 – July 2018*

- Responsible for refining the organisational participatory research and intervention methodology guidelines

**Departmental tutor – Department of Environmental Science, Rhodes University (Grahamstown)**  
*January 2016 – December 2017*

- General assistance: helping staff and fellow post-graduate students with GIS- and statistics-related queries.
- Demonstrator: assistance with undergraduate environmental science practical sessions and marking of practical reports.

**Demonstrator – Department of Plant Science, University of Pretoria (Pretoria)**  
*July 2015 – December 2015*

- Assisting third year students in practical plant identification using dichotomous keys and family recognition by diagnostic reproductive and vegetative characters

**ACADEMIC  
QUALIFICATIONS**

- 2014 - BSc Environmental Science (University of Pretoria )
- 2015 - BSc (Hons) Geographical and Environmental Science (University of Pretoria)
- 2018 - MSc Environmental Science (Rhodes University)

**PUBLICATIONS**

- Gouws, A. J., & Shackleton, C. M. (2019). A spatio-temporal, landscape perspective on *Acacia dealbata* invasions and broader land use and cover changes in the northern Eastern Cape, South Africa. *Environmental Monitoring and Assessment*, 191(2), 74.
- Gouws, A. J., & Shackleton, C. M. (2019). Abundance and correlates of the *Acacia dealbata* invasion in the northern Eastern Cape, South Africa. *Forest Ecology and Management*, 432, 455-466.

**PROFESSIONAL  
EXPERIENCE**

**BASIC ASSESSMENTS**

**Ramotshere Moiloa Local Municipality Residential Extensions, Zeerust, North West Province, 2019–**

Two Basic Assessments for the proposed extension of two residential extensions in Zeerust, North West. Assigned the role of project manager, PPP manager, Ecological Specialist and lead author of the Basic Assessment Report.

**SANRAL Koster R52 Road Upgrade, Koster, North West Province, 2018–**

Basic Assessment for the road upgrade of the R52 route between Koster and the N4 Rustenburg. Assigned the role of project manager, PPP manager, Vegetation and Wetland Specialist, WULA manager and lead author of the Basic Assessment Report.

**Transnet Freight Rail Installation of Telecommunications Masts and Associated Infrastructure at Various Locations in South Africa, 2019–**

Three Basic Assessments for the installation of telecommunications masts in Gauteng, Mpumalanga and KwaZulu-Natal. Assigned the role of project manager, PPP manager and lead author of the Basic Assessment Report.

**FULL SCOPING AND ENVIRONMENTAL IMPACT ASSESSMENTS**

**SANRAL Zandkraal-Winburg N1 Road Upgrade Quarry S&EIR Authorisation, Winburg, Free State Province, 2018–**

Full Scoping and Environmental Impact Assessment for the mining of borrow pits and quarries associated with the upgrade of the N1 between Zandkraal and Winburg South. Assigned the role of project manager, PPP manager and lead author of the Scoping Report and Environmental Impact Assessment Report.

**SANRAL Masekwaspoort N1 Road Quarry S&EIR Authorisation, Musina, Limpopo Province, 2018–On hold**

Full Scoping and Environmental Impact Assessment for the mining of borrow pits and quarries associated with the upgrade of the N1 between Louis Trichardt and Musina. Assigned the role of co-author of the Scoping Report. Project on hold due to pending design changes.

**ENVIRONMENTAL AUDITING**

**SANRAL Hendrina N11 Road Upgrade ECO Audits, Hendrina, Mpumalanga Province, 2018–2019**

Environmental Auditing for the construction of the road and mining of borrow pits associated with the upgrade of the N11 route between Hendrina and Hendrina Power Station. Assigned the role of Environmental Control Officer (ECO), author of ECO audit reports and author of the borrow pit closure report.

**South African National Biodiversity Institute (SANBI) Office Complex Development, Pretoria, Gauteng Province, 2018**

Environmental Auditing for the construction of the Office Complex at the Pretoria National Botanical Gardens. Assigned the role of interim ECO and co-author of ECO audit reports.

**RESETTLEMENT ACTION PLAN (RAP) AUDITING**

**Millennium Challenge Account Malawi (MCA-M) RAP Audits, 2018–2019**

Completion audits for six Resettlement Action Plans (RAPs) conducted for the Infrastructure Development Project in Malawi. These RAPs documented the physical and economic displacement impacts and compensation for assets of people affected by wayleave corridors along 400kV, 132kV, 66kV and 33kV OHLs, as well as for substations and permanent access roads. Assigned the role of database support, auditor, training assistant and assistant author. Later assigned the role of database manager.

**CERTIFICATION**

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes me, my qualifications, and my experience. I understand that any wilful misstatement described herein may lead to my disqualification or dismissal, if engaged.



**Aidan John Gouws**

Date: February 2020

## CONTACT DETAILS

<b>Name of Company</b>	<b>CES – Environmental and Social Advisory Services</b>
<b>Designation</b>	Cape Town Branch
<b>Profession</b>	Principal Environmental Consultant, Botanical Specialist and Branch Manager
<b>Years with firm</b>	Eight (8) years
<b>E-mail</b>	<a href="mailto:t.martin@cesnet.co.za">t.martin@cesnet.co.za</a>
<b>Office number</b>	+27 (0)21 045 0900
<b>Nationality</b>	<b>South African</b>
<b>Professional Body</b>	<b>SACNASP:</b> South African Council for Natural Scientific Profession: Professional Natural Scientist (400018/14) <b>SAAB:</b> Member of the South African Association of Botanists <b>IAIASa:</b> Member of the International Association for Impact Assessments South Africa Member of Golden Key International Honour Society
<b>Key areas of expertise</b>	<ul style="list-style-type: none"><li>• Biodiversity Surveys and Impact Assessments</li><li>• Environmental Impact Assessments</li><li>• Critical Habitat Assessments</li><li>• Biodiversity Management and Monitoring</li></ul>

## PROFILE

### Ms Tarryn Martin

Tarryn holds a BSc (Botany and Zoology), a BSc (Hons) in African Vertebrate Biodiversity and an MSc with distinction in Botany from Rhodes University. Tarryn's Master's thesis examined the impact of fire on the recovery of C<sub>3</sub> and C<sub>4</sub> Panicoid and non-Panicoid grasses within the context of climate change for which she won the Junior Captain Scott-Medal (Plant Science) for producing the top MSc of 2010 from the South African Academy of Science and Art as well as an Award for Outstanding Academic Achievement in Range and Forage Science from the Grassland Society of Southern Africa. Tarryn specialises in conducting vegetation assessments in South Africa, Mozambique and other African countries. These assessments are often to IFC standards, specifically Performance Standard 6. Tarryn has also undertaken critical habitat assessments for areas requiring biodiversity offsets. Other botanical related work includes, developing alien management plans as well as implementing a terrestrial monitoring plan, which includes monitoring forest health, at Kenmare Moma Heavy Minerals Mine.

EMPLOYMENT EXPERIENCE

**Environmental Consultant and Botanical Specialist**, EOH Coastal and Environmental Services

*May 2012-Present*

- Botanical and ecological assessments for local and international EIAs in Southern Africa
- Identifying and mapping vegetation communities and sensitive areas
- Designing and implementing monitoring plans
- Designing rehabilitation and biodiversity offset plans
- Designing alien management plans
- Critical Habitat Assessments
- Large ESIA studies
- Managing budgets
- Cape Town branch manager
- Coordinating specialists and site visits

**Accounts Manager**, Green Route DMC

*October 2011- January 2012*

- Project and staff co-ordination
- Managing large budgets for incentive and conference groups travelling to southern Africa
- Creating tailor-made programs for clients
- Negotiating rates with vendors and assisting with the ground management of inbound groups to ensure client satisfaction.

**Camp Administrator and Project Co-ordinator**, Windsor Mountain International Summer Camp, USA

*April 2011 - September 2012*

- Co-ordinated staff and camper travel arrangements
- Coordinated main camp events
- Assisted with marketing the camp to prospective families.

**Freelance Project Manager**, Green Route DMC

*November 2010 - April 2011*

- Project and staff co-ordination
- Managing large budgets for incentive and conference groups travelling to southern Africa
- Creating tailor-made programs for clients
- Negotiating rates with vendors and assisting with the ground management of inbound groups to ensure client satisfaction.

**Camp Counselor**, Windsor Mountain Summer Camp, USA

*June 2010 - October 2010*

**NERC Research Assistant**, Botany Department, Rhodes University, Grahamstown in collaboration with Sheffield University, Sheffield, England

*April 2009 - May 2010*



- Set up and maintained experiments within a common garden plot experiment
- collected, collated and entered data
- Assisted with the analysis of the data and writing of journal articles

**Head Demonstrator**, Botany Department, Rhodes University  
*March 2007 - October 2008*

**Operations Assistant**, Green Route DMC  
*September 2005 - February 2007*

- Project and staff co-ordination
- Managing large budgets for incentive and conference groups travelling to southern Africa
- Creating tailor-made programs for clients
- Negotiating rates with vendors and assisting with the ground management of inbound groups to ensure client satisfaction

**PUBLICATIONS**

1. Ripley, B.; Visser, V.; Christin, PA.; Archibald, S.; Martin, T and Osborne, C. Fire ecology of C<sub>3</sub> and C<sub>4</sub> grasses depends on evolutionary history and frequency of burning but not photosynthetic type. *Ecology*. 96 (10): 2679-2691. 2015
2. Taylor, S.; Ripley, B.S.; Martin, T.; De Wet, L-A.; Woodward, F.I.; Osborne, C.P. Physiological advantages of C<sub>4</sub> grasses in the field: a comparative experiment demonstrating the importance of drought. *Global Change Biology*. 20 (6): 1992-2003. 2014
3. Ripley, B; Donald, G; Osborne, C; Abraham, T and Martin, T. Experimental investigation of fire ecology in the C<sub>3</sub> and C<sub>4</sub> subspecies of *Alloteropsis semialata*. *Journal of Ecology*. 98 (5): 1196 - 1203. 2010
4. South African Association of Botanists (SAAB) conference, Grahamstown. Title: Responses of C<sub>3</sub> and C<sub>4</sub> Panicoid and non-Panicoid grasses to fire. January 2010
5. South African Association of Botanists (SAAB) conference, Drakensberg. Title: Photosynthetic and Evolutionary determinants of the response of selected C<sub>3</sub> and C<sub>4</sub> (NADP-ME) grasses to fire. January 2008

**COURSES**

1. Rhodes University and CES, Grahamstown  
EIA Short Course 2012
2. Fynbos identification course, Kirstenbosch, 2015.
3. Photography Short Course, Cape Town School of Photography, 2015.
4. Using Organized Reasoning to Improve Environmental Impact Assessment, 2018, International IAIA conference, Durban



**CONSULTING  
EXPERIENCE**

**International Projects**

1. 2020" Biodiversity Management Plan and Monitoring Plan for mine at Piliivilli in Nampula Province, Mozambique. This assessment was to IFC standards.
2. 2019: Botanical Assessment for a cocoa plantation, Tanzania.
3. 2019: Critical Habitat Assessment, Biodiversity Management Plan and Ecosystem Services Assessment for JCM Solar Farm in Cameroon.
4. 2019: Undertook the Kenmare Road and Infrastructure Botanical Baseline Survey and Impact Assessment for an infrastructure corridor that will link the existing mine at Moma to the new proposed mine at Piliivilli in Nampula Province, Mozambique. This assessment was to IFC standards.
5. 2012 – Present: Kenmare Terrestrial Monitoring Program Project Manager and Specialist Survey, Nampula Province, Mozambique.
6. 2018: Conducted a field survey and wrote a botanical report to IFC standards for the proposed Balama Graphite Mine Environmental and Social Impact Assessment (ESIA) in Cabo Delgado Province, Mozambique.
7. 2018: Co-authored the critical habitat assessment chapter for the proposed Kenmare Piliivilli Heavy Minerals Mine.
8. 2018: Authored the Conservation Efforts chapter for the Kenmare Piliivilli Heavy Minerals Mine.
9. 2017-2018: Co-authored and analysed data for the Kenmare Bioregional Survey of *Icuria dunensis* (species trigger for critical habitat) in Nampula Province, Mozambique. This was for a mining project that needed to be IFC compliant.
10. 2017: Conducted a field survey and wrote a botanical report to IFC standards for the proposed Ancuabe Graphite Mine Environmental and Social Impact Assessment (ESIA) in Cabo Delgado Province, Mozambique.
11. 2017-2018: Managed the Suni Resources Montepuez Graphite Mine Environmental Impact Assessment. This included the management of ten specialists, the co-ordination of their field surveys, regular client liaison and the writing of the Environmental Impact Assessment Report which summarised the specialists findings, assessed the impacts of the proposed mine on the environment and provided mitigation measures to reduce the impact.  
I was also the lead botanist for this baseline survey and impact assessment and undertook the required field work and analysed the data and wrote the report.
12. 2017: Undertook the botanical baseline survey and impact assessment for the proposed Kenmare Piliivilli Heavy Mineral Mine in Nampula Province, Mozambique. This was to IFC Standards.
13. 2017: Ecological Survey for the Megaruma Mining Limitada Ruby Mine Exploration License, Cabo Delgado, Mozambique.
14. 2016: Undertook the botanical baseline survey and impact assessment, wrote an alien invasive management plan and co-

authored the biodeiversity monitoring plan for this farm. The project was located in Zambezia Province, Mozambique.

15. 2015-2016: Conducted the Triton Minerals Nicanda Hills Graphite Mine Botanical Survey and Impact Assessment. Was also the project manager and specialist co-ordinator for this project. The project was located in Cabo Delgado Province, Mozambique.
16. 2015: Was part of the team that undertook a Critical Habitat Assessment for the Nhangonzo Coastal Stream site at Inhassora in Mozambique that Sasol intend to establish drill pads at. This project needed to meet the IFC standards.
17. 2014: Lurio Green Resources Wood Chip Mill and Medium Density Fibre-board Plant, Project Manager and Ecological Specialist, Nampula Province, Mozambique. 2014-2015.
18. 2013-2014: LHDA Botanical Survey, Baseline and Impact assessment, Lesotho.
19. 2014: Biotherm Solar Voltaic Ecological Assessment, Zambia.
20. 2013-2014: Lurio Green Resources Plantation Botanical Assessment, Vegetation and Sensitivity Mapping, Specialist Co-ordination, Nampula Province, Mozambique.
21. 2013: Syrah Resources Botanical Baseline Survey and Ecological Assessment., Cabo Delgado Mozambique.
22. 2013-2014: Baobab Mining Ecological Baseline Survey and Impact Assessment, Tete, Mozambique.

#### **South African Projects**

23. 2019: Ecological Assessment for a wind farm EIA, Kleinzee, Northern Cape
24. 2019: Ecological Assessment for construction of satellite antennae, Matjiesfontein, Western Cape
25. 2019: Ecological Assessment for two housing developments in Zeerust, North West Province
26. 2019: Botanical Assessment in Retreat, Cape Town for the DRDLR land claim.
27. 2019: Cape Agulhas Municipality Botanical Assessment for the expansion of industrial zone, Western Cape, South Africa, 2019.
28. 2018: Ecological Assessment for the construction of a farm dam in Greyton, Western Cape.
29. 2018: Conducted the Ecological Survey for a housing development in Noordhoek, Cape Town
30. 2018: Conducted the field survey and developed an alien invasive management plan for the Swartland Municipality, Western Cape.
31. 2017: Undertook the field survey and co-authored a coastal dune study that assesses the impacts associated with the proposed rezoning and subdivision of Farm Bookram No. 30 to develop a resort.
32. 2017: Project managed and co-authored a risk assessment for the use of Marram Grass to stabilise dunes in the City of Cape Town.
33. 2015-2016: iGas Saldanha to Ankerlig Biodiversity Assessment Project Manager, Saldanha.
34. 2015: Innwind Ukomoleza Wind Energy Facility Alien Invasive Management Plan, Eastern Cape Province, South Africa.

35. 2015: Savannah Nxuba Wind Energy Facility Powerline Ecological Assessment, ground truthing and permit applications, Eastern Cape South Africa.
36. 2014: Cob Bay botanical groundtruthing assessment, Eastern Cape, South Africa.
37. 2013-2016: Dassiesridge Wind Energy Facility Project Manager, Eastern Cape, South Africa.
38. 2013: Harvestvale botanical groundtruthing assessment, Eastern Cape, South Africa.
39. 2012: Tsitsikamma Wind Energy Facility Community Power Line Ecological Assessment, Eastern Cape, South Africa.
40. 2012: Golden Valley Wind Energy Facility Power Line Ecological Assessment, Eastern Cape, South Africa.
41. 2012: Middleton Wind Energy Facility Ecological Assessment and Project Management, Eastern Cape, South Africa.
42. 2012: Mossel Bay Power Line Ecological Assessment, Western Cape, South Africa.
43. 2012: Groundtruthing the turbine sites for the Waainek Wind Energy Facility, Eastern Cape, South Africa.
44. 2012: Toliara Mineral Sands Rehabilitation and Offset Strategy Report, Madagascar.

**CERTIFICATION**

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes me, my qualifications, and my experience. I understand that any wilful misstatement described herein may lead to my disqualification or dismissal, if engaged.

**Tarryn Martin**

Date: 19 February 2020