



Michelle Herbert

E&S Contract Management Practice Lead

Overview

Michelle Herbert is a Senior Environmental Scientist and Project Manager for public and resource infrastructure projects, as well as for nuclear and waste management projects in South Africa. Her focus is management and execution of Environmental Authorisation processes, waste management, water use licence applications and Environmental Management Programmes (EMPs) as required by environmental legislation for projects ranging from roads and pipelines to waste-to-energy, hydrocarbon and nuclear. Her work includes public participation and sub-consultant management and environmental and engineering practices integration to ensure a holistic approach to project strategy development, planning, risk analysis, and execution.

Areas of Expertise

- Environmental Impact Assessment
- Environmental Project Management
- Feasibility and Scoping Studies
- Stakeholder Engagement
- Public and Resource Infrastructure
- Nuclear Environmental Management
- Environmental Compliance Monitoring
- Business Development

Relevant Experience

Environmental Impact Assessment/Stakeholder Engagement, 2007 – present

Environmental Impact Assessments (EIAs) and Basic Assessments to meet local and national legal requirements for water and land use, waste management, and air quality; engagement with internal and external stakeholders; and development and maintenance of Construction Environmental Management Programmes (EMPs) for the management of potential impacts of projects.

Environmental Project Management/Nuclear Environmental Management, 2010 – present

Strategic planning, decision-making and risk assessment, project management of EIAs, in-house project management to ensure compliance with schedule, budget, quality standards and environmental legislation, and contract, change, financial and resource management and reporting. Three-year secondment to Eskom Koeberg Nuclear Power Station to develop an Environmental Strategy for key projects, to support the Environmental Authorisation processes, to complete Environmental Risk Assessment and Strategy, to determine the scope, procurement and evaluation of environmental consultants, and to facilitate information between client and consultants.

Environmental Compliance Monitoring, 2007 – present

Environmental Compliance Officer (ECO) for Environmental Authorisations, EMPs and associated permits for construction activities, including client, contractor and governmental liaison.



Qualification & Affiliations

Education

- BSc (Honours) Environmental Sciences and Development, North-West University, South Africa, 2009
- BSc Biology, North West University, South Africa, 2004

Affiliations

- Project Management Institute (PMI) (2168469), 2015
- Water Institute of South Africa (WISA) (24284), 2010
- International Association of Impact Assessments South Africa (IAIAsa) (3885), 2008

Specific Technical Expertise/Specialist Courses

- NEC3 PSC Contract Management (24 hrs), Provider, Cape Town, RSA, 2015
- Project Management Professional Certification Programme (40 hrs), PM.Ideas, Cape Town, RSA, 2014
- Project Management Foundations (16 hrs), Consulting Engineers South Africa, Cape Town, RSA, 2010
- Environmental Law for Environmental Managers (48 hrs), North-West University, Potchefstroom, RSA, 2010
- Project Management Professional Exam Preparation (40 hrs), SQDC Development School, Cape Town, RSA, 2010
- Project Management with Microsoft Project (24 hrs), Classic Seminars, Cape Town, RSA, 2010
- Sustainability Conference & Footprinting Workshop (24 hrs), Soil & More Reliance Atlantic Waste, Cape Town, RSA, 2009
- Conservation & Biodiversity Studies (12 mos), North-West University, Potchefstroom, RSA, 2004

Languages

- Afrikaans: Mother tongue
- English: Proficiency speaking and writing

Work History

2015 – present	E&S Contract Management Practice Lead, Advisian-WorleyParsons Group, Cape Town, South Africa
2011 – 2015	Environmental Project Manager (2014-2015) and Environmental Scientist (2011-2014), WorleyParsons RSA (Pty) Ltd., Cape Town, South Africa
2008 – 2011	Environmental Scientist, Kwezi V3 Engineers (Pty) Ltd., Cape Town, South Africa
2007 – 2008	Environmental Scientist, Africon (Pty) Ltd. (now Aurecon), Pretoria, South Africa
2006 – 2007	Educator, Primrose High School, Johannesburg, South Africa
2002 – 2005	Practical Demonstrator (Zoology and Pharmaceutical Zoology), North-West University, Potchefstroom, South Africa

An extended version of this CV with full lists of projects is available upon request.



Marinda le Roux

Environmental Consultant

Overview

Marinda le Roux, an Associate Environmental Advisor at Advisian, is a certified Environmental Assessment Practitioner (EAP) with a Master's degree in Town and Regional planning and over twenty (20) years of experience in Environmental Management. Marinda's fields of specialisation are environmental assessment, land use development, project management and coordination of environmental aspects of projects. She provides the integration of specialist scientific studies into applications for authorisation, including feasibility studies, Basic Assessments (BA)s and Environmental Impact Assessments (EIAs). She offers peer review and due diligence (compliance) inspections, evaluates engineering solutions, and recommends mitigation/risk minimising measures in terms of Environmental Best Practice. Marinda has been Project Manager and/or EAP for complex BAs and EIAs, including electricity infrastructure (generation, transmission and distribution), roads, stormwater and waste-related projects. Marinda has local (South African) and international project experience (Uganda, Ethiopia and Mozambique).

Areas of Expertise

- Project Management
- Environmental Impact Assessments
- Land Use Development Planning
- Public Participation & Facilitation
- Social Impact Assessments
- Compliance Auditing
- Peer Review, Research & Report Writing
- Water Use License Applications
- General Authorisations, Section 24G
- Waste Management License Applications

Relevant Experience

Environmental Impact Assessment (EIA)

Full Scoping and Environmental Impact Assessments (EIAs), providing Project Management, Report development, and EAP for applications to obtain authorisations from the South African National and Provincial Departments of Environmental Affairs.

Basic Assessment (BA)

Project Manager, Report developer, and/or EAP for Basic Assessments (BAs) for applications to obtain authorisation from the South African National and Provincial Departments of Environment.

Compliance Audits & Peer Review

Ensures that reports conform with the quality goals and international practise of Advisian and that the contents of environmental assessment reports are clear and comprehensive. Compiles Environmental Management Plans for implementation during construction to minimise potential negative environmental impacts, based on more than two decades of specialised experience in environmental management.



Specialised Applications, Strategic Project Specialist

Specialised input due to complex or strategic nature of projects and tenders, applying a background as Town Planner and Environmental Manager to develop sustainable proposals in environmental and socio-economic terms without compromising developmental goals and engineering solutions. Experience with engineering and infrastructure projects is applied to maintain balance between development and conservation.

Qualification & Affiliations

Education

Master's degree in Town & Regional Planning (MTRP), University of the Free State, South Africa, 1992

Bachelor's degree in Geography & Sociology (BA), University of Stellenbosch, South Africa, 1989

Affiliations

EAPSA, Certified Environmental Assessment Practitioner (EAP), 2003

TRPSA, Registered Town Planner, 1999

Specific Technical Expertise / Specialist Courses

EIA Theory & Practice (3 days), CEN University of the North West, 2000

GIS – Operating a vector-based Geographical Information System (part-time module), UNISA, 2014

Languages

ENGLISH: Excellent Proficiency spoken and written

AFRIKAANS: Mother tongue

Work History

- 2016- present Associate Environmental Specialist, Advisian-WorleyParsons Group, South Africa
- 2014 - 2016 Senior Environmental Practitioner, Envirolution, Mondeor, Johannesburg, South Africa
- 1996 - 2007 Senior Environmental Practitioner, BKS Engineers (AECOM), Pretoria, South Africa
- 1993 - 1996 Town and Regional Planner, Provincial Government of the Free State, Bloemfontein, South Africa

An extended version of this CV with full lists of projects, publications and courses is available upon request.



Rian Kuffner

Senior GIS Associate

Overview

Rian Kuffner is a Senior GIS Professional and Project Manager with experience in the fields of Engineering and Environmental Services and Town and Regional Planning. He has extensive experience with data capture, modelling, spatial analysis, remote sensing, map production, management of spatial data and report writing for various engineering and environmental projects. He is also experienced in the planning sector for towns and regions, compiling spatial and attribute data and preparing plans for projects, such as spatial development frameworks (SDFs), structure plans and zoning schemes. During recent years, Rian has been involved in projects in the water services sector, assisting with the compilation of Audit and Development Reports for various municipalities in the Western Cape.

Areas of Expertise

- Project Management
- Database Management
- Data Sourcing and Conversion
- Spatial Analysis & Remote Sensing
- Environmental Management Processes
- Field Data Collection Support
- Map Production
- Feasibility Mapping
- Water Services Development Plans and Master Planning
- Water Services Audits
- Spatial Development Frameworks
- Zoning Schemes and Layout Planning

Relevant Experience

Project Management, 2015-present

Strategic planning, decision-making and risk assessment, project management of EIAs, in-house project management to ensure compliance with schedule, budget, quality standards and environmental legislation, and contract, change, financial and resource management and reporting.

Database Management, 2009-present

Managing data for projects of all sizes across numerous disciplines for a variety of internal and external clients, such as state departments, local authorities and private clients. Development and execution of design, policies, practices and procedures that properly manage the full data lifecycle needs for projects undertaken in the engineering and environmental sectors. Data management approach to optimise the potential for project success by offering a high degree of data integrity and the ability to efficiently manage and disseminate large volumes of information.



Data Sourcing and Conversion, 2009-present

Critical project lifecycle inputs sourced from data searches, acquisitions, and specialist inputs/knowledge, are scrutinized and, when necessary, digitized from hard copy formats, and converted and extracted from available electronic formats.

Spatial Analysis & Remote Sensing, 2009-present

Data processing, analysis and reporting as contributions to engineering and environmental projects, including elevation and network modelling, statistical analysis/data mining, proximity analysis, overlay analysis, probability mapping and optimal site selection, catchment and natural basin delamination.

Environmental Management Processes, 2012 - present

Project and GIS specialist input into Environmental Impact Assessments, Water Use License Applications and Coastal Water Discharge Permitting Reports, informing various Environmental Authorisations.

Field Data Collection Support, 2010-2016

Input in the planning and preparation of project execution plans, offering a tailored fit approach to field data collection. This includes pre-processing and supply of information to fieldworkers, design and distribution of templates, equipment setup and support, training, coordination and progress tracking/reporting on fieldwork, data verification to ensure integrity and accuracy, post-processing and data conversion and reporting to the client.

Map Production, 2009-present

Mapping at all phases of project execution, ranging from locality and layout drawings for tender purposes, to the production of high quality maps for presentation or report purposes. Typical mapping requirements involve locality drawings, base site layout mapping, status quo mapping, environmental mapping, water safety plans, blue/green drop studies, master plan mapping, water service development plans, among others.

Feasibility Mapping, 2001-present

Assess the viability of a proposed development from an environmental and social perspective and identify potential issues and threats to the successful completion of the proposed development. GIS inputs throughout the project lifecycle, from data sourcing and analysis to final mapping, presentation and reporting.

Water Services Development Plans, 2009-present

Drafting WSDPs according to DWA WSDP guidelines, ensuring that the WSDP is in-line with the integrated development plan and incorporating the latest master plans, asset management plans, source studies, financial information and budgets.

Water Services Audits, 2014-present

Drafting Water Services Audits for municipalities across the Western Cape of South Africa according to DWA guidelines. Ensuring that each audit is in-line with the integrated development plan, while incorporating the latest master plans, asset management plans, source studies, financial information and



budgets. Municipalities (12): Drakenstein; Beaufort West; Overstrand; Bergrivier; Cederberg; Matzikama; Langeberg; Swartland; George; Laingsburg; Cederberg; and Matzikama.

Spatial Development Frameworks, 2004-2008

Formulated spatially-based guidelines and proposals whereby changes, needs and growth in the area can be managed to the benefit of the environment and its inhabitants. The Spatial Development Frameworks (SDF) developed for municipalities across the Western Cape Province of South Africa ensured pragmatic approaches to future opportunities and challenges. Existing data were sourced and captured into centralised GIS databases, and maps were compiled to inform the SDF reports. Municipalities (4): Theewaterskloof; Overstrand; Swellendam; and Cape Agulhas.

Zoning Schemes and Layout Planning, 2004-2008

Existing zoning maps and zoning registers were sourced and captured to compile up-to-date zoning datasets. Prepared up-to-date maps to inform the Zoning Scheme Regulations for municipalities of the Western Cape of South Africa. Municipalities (3): Saldanha Bay; Stellenbosch; and Swellendam.

Qualification & Affiliations

Education

- BA (Hons) GIS (Analysis and Decision Making), University of Stellenbosch, South Africa, 2003
- BA (Sport Science), University of Stellenbosch, South Africa, 2002

Languages

- AFRIKAANS: Mother tongue or Proficiency spoken and written
- ENGLISH: Fluent spoken and written

Work History

- 2015 - present Senior GIS Associate, Advisian Sub Sahara Africa
- 2011 - 2015 GIS Practitioner, WorleyParsons RSA (Pty) Ltd
- 2008 - 2011 GIS Technician, Kwezi V3 Engineers (Pty) Ltd
- 2004 - 2008 GIS Manager, Urban Dynamics Town and Regional Planners

An extended version of this CV with full lists of projects, publications and courses is available upon request.



Liezel Hattingh

Environmental Consultant

Overview

Liezel Hattingh is an Environmental Consultant with 10 years' experience gained in performing and supporting Basic Assessments; Environmental Impact Assessments; Environmental Compliance Monitoring and Auditing; and Environmental Feasibility Studies. Her experience include the compilation of Environmental Management Programs for various projects; as well as Waste Management and Water Use License Applications.

Liezel has been a full time onsite Environmental Compliance Officer (ECO) for more than two year with the Construction of the Metolong Downstream Conveyance System Project – Primary pipeline to Maseru, as well as the secondary pipeline to Teyateyaneng, Lesotho.

Her experience also includes Public Participation under the National Environmental Management Act (NEMA) 107 of 1998, as amended.

Areas of Expertise

- Environmental Compliance Auditing
- Environmental Management
- Environmental Impact Assessment
- Stakeholder Engagement & Public Participation
- Water Use Licensing
- Waste Management Authorisation

Relevant Experience

Environmental Compliance Auditing

- Construction of the OTMS Crude Oil Storage Tank Facility, Saldanha Bay, Western Cape, South Africa, Oiltanking MOGS Saldanha (RF)(Pty) Ltd.
- Construction of the Metolong Downstream Conveyance System - Secondary Pipeline from the Metolong Dam to Teyateyaneng, Lesotho, Metolong Authority.

Public Participation

- Proposed New Crude Oil Jetty and Associated Pipelines to the OTMS Crude Oil Blending and Storage Terminal, Saldanha Bay, Western Cape, South Africa, Oiltanking MOGS Saldanha (RF)(Pty) Ltd.
- New Regional Louisrus Landfill and Cemetery – Site Selection, Permitting and Operation, Vanderbijlpark, Gauteng, South Africa, Emfuleni Local Municipality.

Environmental Impact Assessment & Environmental Management Programme

- New Regional Louisrus Landfill and Cemetery – Site Selection, Permitting and Operation, Vanderbijlpark, Gauteng, South Africa, Emfuleni Local Municipality.
- Rehabilitation of the Vlakfontein Canal – part of the Usutu-Vaal Government Water Scheme, Mpumalanga, South Africa, Department of Water Affairs.



Water Use Authorisations

- Construction of the OTMS Crude Oil Storage Tank Facility, Saldanha Bay, Western Cape, South Africa, Oiltanking MOGS Saldanha (OTMS).
- IWULA for the Cato Ridge Works, South Africa, Assmang Manganese, Cato Ridge, Kwazulu-Natal, South Africa.

Waste Management Authorisations

- New Regional Louisrus Landfill and Cemetery – Site Selection, Permitting and Operation, Vanderbijlpark, Gauteng, South Africa, Emfuleni Local Municipality.
- Expansion and Upgrade of the Existing Standerton Landfill Site, Standerton, Mpumalanga, South Africa, Lekwa Local Municipality.

Qualification & Affiliations

Education

- BSc Environmental Science, University of Stellenbosch, Western Cape, South Africa, 2007.

Affiliations

- International Association for Impact Assessment South Africa, Member, 2009 – 2018.

Specific Technical Expertise / Specialist Courses

- Roles and Responsibilities of Environmental Control/Compliance Officers, International Association for Impact Assessment South Africa, Cape Town, Western Cape, South Africa, 2016.
- Public Participation Workshop, Association for Impact Assessment South Africa, Cape Town, Western Cape, South Africa, 2016.
- Water Use Authorisations – Procedures, Guidelines, IWWMPs and Pitfalls, Carin Bosman Sustainable Solutions, Pretoria, Gauteng, South Africa, 2011.
- The National Water Act and Regulations – A Practical Understanding, Carin Bosman Sustainable Solutions Pretoria, Gauteng, South Africa, 2011.
- Site First Aid Training: National Occupational Safety & Health Consultancy, Pretoria, Gauteng, South Africa, 2009.
- Environmental Impact Assessment and Beyond: International Association for Impact Assessment South Africa, Pretoria, Gauteng, South Africa, 2009.
- Annual Environmental Law, Green Gain Consulting (Pty) Ltd, Pretoria, Gauteng, South Africa, 2009.

Languages

- Afrikaans: Excellent.
- English: Excellent.

Work History

2015 - Present Environmental Consultant, WorleyParsons (Pty) Ltd trading as Advisian, Cape Town, Western Cape, South Africa.



2011 - 2015 Environmental Scientist, WorleyParsons (Pty) Ltd, Pretoria, Gauteng, South Africa.

2008 - 2011 Environmental Scientist, KV3 Engineers (Pty) Ltd, Pretoria, Gauteng, South Africa.

An extended version of this CV with full lists of projects, publications and courses is available upon request.



Karen Burgers

Senior Environmental Scientist - Hydrogeology

Overview

Karen Burgers is a registered professional Natural Scientist with degrees in Geology and Geochemistry and experience applying hydrogeology, geochemistry and geology to large- and small-scale groundwater supply, aquifer management, wellfield management, groundwater monitoring, hydrogeological assessment, groundwater modelling and contamination assessment projects. Karen has provided consulting and groundwater project management to all types of groundwater and geochemical projects for a wide range of clients. Karen has nineteen (19) years of experience consulting for the industry, mining and exploration sectors throughout Africa (South Africa, Zimbabwe, Mozambique, Gabon, Botswana, the DRC, Guinea, Tanzania, Namibia, Angola, Ethiopia and Kenya), Canada, Russia, India and Australia.

Areas of Expertise

- Groundwater Specialist Studies for EIA's
- Groundwater Supply and Monitoring
- Wellfield and Aquifer Management
- Contamination Assessments
- Water Use License Applications and Authorisations
- Groundwater Project Management
- Client, Sub-consultant and Contractor Management

Relevant Experience

Groundwater Specialist Studies for EIAs (2006-present)

Hydrogeological assessments of pre-built environments for specialist studies and input for Environmental Applications. Input during basic assessments and EIAs and consultation. Full groundwater or desktop assessments for various locations across South Africa and Botswana and industries, from rural open land to build-up industrial sites for oil and gas, coal, nuclear and chemical industries.

Groundwater Supply Assessment and Monitoring (2007-present)

Groundwater exploration for water supply and groundwater investigations to protect and monitor activities that could potentially affect underlying aquifers in South Africa and Ethiopia.

Wellfield and Aquifer Management (2011-2014)

Monitoring, sampling and analysis of variations in groundwater levels, hydrochemistry and aquifer response to large- or small-scale abstraction from boreholes in wellfields in South Africa.

Contamination Assessments (2007-2017)

Monitoring, sampling and analysis of variations in groundwater levels, hydrochemistry and aquifer response to large- or small-scale abstraction from boreholes in wellfields in South Africa.



Water Use License Applications and Authorisations (2011-present)

Preparation and submission of documents to obtain authorisations for water use applications as per relevant South African legislation and requirements.

Groundwater Project Management and project Management (2006-2014)

Regional-scale groundwater evaluation projects, area-based plans for groundwater management, water strategies for towns, and data management in South Africa, and Project management of small- and large-scale drilling, exploration and evaluation projects globally.

Qualification & Affiliations

Education

- Bachelor of Science (Honours) in Geochemistry and Geology, University of Cape Town, 1994
- Bachelor of Science in Geology and Chemistry, University of Cape Town, South Africa, 1991

Affiliations

- South African Council for Natural Scientific Professionals (SACNASP), Registration No. 400157/05
- Geological Society of South Africa, Member No. 965037
- Groundwater Association of South Africa, Member No. 1518

Specific Technical Expertise / Specialist Courses (partial)

- Fractured Rock Aquifer Assessment (1 week), UWC, Cape Town, 2009
- Global Positioning System Orientation Course (6 hrs), KJ Bolton, Port Elizabeth, 2009
- Groundwater Resource Directed Measures Training (1 day), DWS, Port Elizabeth 2007
- Achiever Programme (4 months) De Beers, Johannesburg, 2005
- Introduction, Advances, and applied ArcGIS and Spatial Analyst training (2 weeks), Johannesburg, 2004
- OHASA Legal Liability (1 day), Johannesburg, 2002
- ISO 14001 Environmental Management System (2 days), 2002
- Advanced Drilling Methods and Techniques in Exploration Drilling (1 week), Johannesburg, 2000

Languages

- ENGLISH: Mother tongue
- AFRIKAANS: Proficient spoken

Publications/Presentations

- Burgers K.M. (2006). The influence of pre- and post-emplacement cover on kimberlite formation, appearance and detection, De Beers Africa Exploration Conference, Bela-Bela.
- Ward J.D., Burgers K.M. & Apter D.B. (2005). Cretaceous volcanoclastic bodies of Mt. Carmel and their potential contribution to late Cenozoic diamondiferous sediments in the Qishon graben, Israel Geological Society.



- Burgers K.M., McKenna N., Keswa C, Salinga A. & Xiaquivuila C. (2004). Benchmarking report: Group Exploration MacroDiamond Laboratory (GEMDL) as a world-class facility, De Beers Achiever Programme.
- Burgers K.M., Quadling K.E. & Price R. (2000). A review of the kimberlites in the Triangle area, Zimbabwe - mineral chemistry, petrography, mantle xenolith studies and Ni-thermometry, De Beers Africa Exploration Conference, Kimberley.
- Burgers K.M., Boucher, D.R., Kong J., 1998. The petrography of the Opap kimberlites, New Liskeard area, Ontario, Canada, 7th International Kimberlite Conference, Cape Town.

Work History

2015 - present	Environmental Consultant – Hydrogeology, Advisian, South Africa
2012 - 2014	Senior Hydrogeologist, Umvoto Africa (Pty) Ltd, South Africa
2006 - 2010	Senior Hydrogeologist, SRK Consulting, South Africa
2003 - 2006	Senior Geologist, De Beers Exploration, South Africa
2003	Project Manager, Kgare Exploration Project, De Beers, Botswana
2000 – 2003	Senior Petrologist and Geochemist, De Beers GeoScience Centre, South Africa
1996 - 2000	Petrologist and Geochemist, Anglo American Research Laboratories, South Africa

Personal details

Full Name Luke VERBURGT
DOB 31 March 1977
Nationality South African
Marital Status Married
Email luke@enviro-insight.co.za
Phone +27 083 784 1997
ID number 770331 5171084



Education

Completed	Degree and Institution
1994	Matric, Pietersburg Hoërskool, Polokwane, South Africa
1999	BSc in Zoology, University of Pretoria, Pretoria, South Africa
2002	BSc (Honours) in Zoology, University of Pretoria, Pretoria, South Africa
2006	MSc in Zoology (Evolutionary Biology, Behaviour, Bioacoustics), University of Pretoria, Pretoria, South Africa.

Memberships & Certificates

SACNASP registration for Zoological Science (member # 400506/11)
African Herpetological Society

Other Training

Course in Ecological Niche Modelling, University of Pretoria, 2008
IUCN Workshops: Evaluation of conservation status and protected area analysis for South African Reptiles. SANBI, Cape Town, 2017

Publications & Contributions

Conradie, W., Verburgt, L., Portik, D.M. & Ohler, A. 2017. A new Reed Frog (Hyperoliidae: Hyperolius) from coastal northeastern Mozambique. *Zootaxa*. In press

Branch, W.R., Guyton, J.A., Schmitz, A., Barej, M.F., Naskrecki, P., Farooq, H., Verburgt, L. & Rödel, M-O. 2017. Description of a new flat gecko (Squamata: Gekkonidae: Afroedura) from Mount Gorongosa, Mozambique. *Zootaxa* 4324(1).

Verburgt, L., Verburgt, U.K. & Branch, W.R. 2017. A new species of Scolecoseps (Reptilia: Scincidae) from north-eastern Mozambique. *African Journal of Herpetology*. In press

Branch, W.R., Haacke, W., vaz Pinto, P., Conradie, W., Baptista, N. & Verburgt, L. 2016. Loveridge's Angolan geckos, *Afroedura karroica bogerti* and *Pachydactylus scutatus angolensis* (Sauria, Gekkonidae): new distribution records, comments on type localities and taxonomic status. *Zoosystematics and Evolution* 93(1): 157-166.

Verburgt, L. & Coetzer, A. 2015. Geographic Distribution. *Xenopus muelleri* Peters, 1844, *Tropical platanna*. *African Herp News*. (63): 21-23.

Reynolds, D.S., Verburgt, L., Schoeman, A.S. and Brandenburg, R.L., 2015. Mole Cricket (Orthoptera: Gryllotalpidae) Mating Calls: Characteristics in Recently Expanded Geographic Areas. *Journal of Entomological Science*, 50(2), pp.106-109.

Verburgt, L., Verburgt, U.K. & Bates, M.F. 2015. *Gerrhosaurus auritus* (Boettger, 1887). Geographical Distribution. *African Herp News*. 62:48-49

Yetman, C.A., Verburgt, L. & Laurence, S.D. 2015. *Pixyicephalus adspersus* (Tschudi, 1838). Geographical Distribution. *African Herp News*. 62:50-53

Bokhout, B., Verburgt, L. & Davies, A.B. 2015. *Afrotyphlops schlegelii* (Bianconi, 1847) Termite Mound Access Behaviour. *Natural History Notes*. *African Herp News*. 62:16-22

Luke Verburgt

- Prins, A., Verburgt, L. and Ferguson, J.W.H., 2013. Does sexual selection explain the courtship song of field crickets (*Gryllus bimaculatus*)? Suid-Afrikaanse Tydskrif vir Natuurwetenskap en Tegnologie, 32(1), pp.2-pages.
- Verburgt, L., Clark, T.K., Cauldwell, A.E., Branch, W.R. 2013. First record of the White-spotted Wolfsnake (*Lycophidion albomaculatum* Steindachner, 1870) in Sierra Leone. African Herp News. 59:46-48
- Verburgt, L., Yetman, C.A. 2012. Geographic range extension for the Giant Bullfrog (*Pyxicephalus adspersus* Tschudi, 1838). African Herp News. 57:18-20
- Verburgt, L., Broadley, D.G. 2012. First record of the Eastern Tree Skink (*Trachylepis planifrons*, 1878) in Malawi. African Herp News. 57:20-22
- Verburgt, L., van Tonder, H., Broadley, D.G. 2012. Geographic range extension for the Katanga Thicktoed Gecko (*Pachydactylus katanganus* de Witte, 1953). African Herp News. 57:23-26
- Boyles, J.G., Verburgt, L., McKechnie, A.E., Bennett, N.C. 2012. Heterothermy in two mole-rat species subjected to interacting thermoregulatory challenges. Journal of Experimental Zoology Part A. 317(2):73-82
- Koehler, A., Verburgt, L., Fleming, P.A., McWhorter, T.J., Nicolson, S.W. 2011. Interruptions in nectar availability: can whitebellied sunbirds (*Cinnyris talatala*) and brown honeyeaters (*Lichmera indistincta*) cope? Emu. 111:252-258
- Verburgt, L., Ferreira, M., Ferguson, J.W.H. 2011. Male field cricket song reflects age, allowing females to prefer young males. Animal Behaviour. 81:19-29
- Lutermann, H., Verburgt, L. and Rendigs, A. 2010. Resting and nesting in a small mammal: sleeping sites as a limiting resource for female grey mouse lemurs. Animal Behaviour, 79(6), pp.1211-1219.
- Köhler, A., Verburgt, L., McWhorter, T.J. and Nicolson, S.W. 2010. Energy management on a nectar diet: can sunbirds meet the challenges of low temperature and dilute food? Functional ecology, 24(6), pp.1241-1251.
- Koehler, A., Leseigneur, C.D.C., Verburgt, L., Nicolson, S.W. 2010. Dilute bird nectars: viscosity constrains food intake by licking in a sunbird. American Journal of Physiology-Reg Integr & Comp. 299:1068-1074
- Verburgt, L., Ferguson, J.W.H. 2010. Mate choice in field crickets: can females acoustically detect male body size? Journal of Ethology. 28(1):141-151
- Fleming, P.A., Verburgt, L., Scantlebury, M., Medger, K., Bateman, P.W. 2009. Jettisoning ballast or fuel? Caudal autotomy and locomotory energetics of the Cape dwarf gecko *Lygodactylus capensis* (Gekkonidae). Physiological and Biochemical Zoology. 82(6):756-765
- Unck, C.E., Waterman, J.M., Verburgt, L., Bateman, P.W. 2009. Quantity versus quality: how does level of predation threat affect Cape ground squirrel vigilance? Animal Behaviour. 78(3):625-632
- de Bruyn, P.J.N., Landman, M., Tambling, C.J., Verburgt, L. 2009. Does science serve the wildlife industry? A critique of von Brandis & Reilly (2008). South African Journal of Wildlife Research. 39(1):103-105
- Koehler, A., Verburgt, L., Nicolson, S.W. 2008. Nectar intake of whitebellied sunbirds (*Cinnyris talatala*): Can meal size be inferred from feeding duration? Physiological and Biochemical Zoology. 81(5):682-687
- Koehler, A., Verburgt, L., Fleming, P.A., Nicolson, S.W. 2008. Changes in nectar concentration: how quickly do whitebellied sunbirds (*Cinnyris talatala*) adjust feeding patterns and food intake? Journal of Comparative Physiology B. 178:785-793

Medger, K., Verburgt, L., Bateman, P.W. 2008. The Influence of Tail Autotomy on the Escape Response of the Cape Dwarf Gecko, *Lygodactylus capensis*. Ethology. 114:42-52

Verburgt, L., Ferguson, J.W.H., Weber, T. 2008. Phonotactic response of female crickets on the Kramer treadmill: methodology, sensory and behavioural implications. J Comp Physiol A. 194:79-96

Leseigneur, C.D.C., Verburgt, L., Nicolson, S.W. 2007. Whitebellied sunbirds (*Nectarinia talatala*, Nectariniidae) do not prefer artificial nectar containing amino acids. J. Comp. Physiol. B. 177:679-685

Koehler, A., Verburgt, L., Nicolson, S.W. 2006. Short-term energy regulation of whitebellied sunbirds (*Nectarinia talatala*): effects of food concentration on feeding frequency and duration. Journal of Experimental Biology. 209:2880-2887

Bateman, P.W., Verburgt, L., Ferguson, J.W.H. 2005. Male song stimulates more rapid investment in eggs in the cricket *Gryllodes sigillatus*. African Zoology. 40:323-326

In preparation: Verburgt, L., Verburgt, UK & Ferguson, JWH. Paper on the influence of wing structure, on sound production in crickets

Employment & work-related experiences

2009 - present	Co-Director and Co-Owner of Enviro-Insight CC, Lead-Herpetologist and GIS specialist.
2007 - present	Scientific Collaborations, University of Pretoria
2006 - present	Software development, database management, web-design
2005 - present	Co-supervisor, University of Pretoria
2001-2010	Demonstrator and Lecturer, University of Pretoria
1995-1995	Project Assistant, Blouberg Conservation Project

Key areas of expertise

Herpetological Assessments and Survey, Environmental Impact Assessments, Biodiversity and Ecological Assessments, Environmental Management and Monitoring Plans, GIS mapping, Spatial analyses, Statistics, Health and Safety Training, Project Management

Language skills

Language	Speaking	Reading	Writing
English	Excellent	Excellent	Excellent
Afrikaans	Good	Fair	Basic
Portuguese	Basic	Basic	None
German	Fair	Fair	None
Northern Sotho	Basic	None	None

References

Prof, JWH Ferguson, willemferguson@zoology.up.ac.za

Prof, AE McKechnie, aemckechnie@zoology.up.ac.za

Prof, CT Chimimba, ctchimimba@zoology.up.ac.za

Project Experience

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Project Experience

For further details please contact me directly under luke@enviro-insight.co.za

Time span	Nature of project	Capacity	Industry / Sector	Client / Developer	Country (Province)
2017	Faunal baseline and Impact Assessment (Saldanha)	Ecologist	Transport / Pipeline	Advisian	South Africa (Western Cape)
2017	Environmental Impact Assessment (Koulekoun & Kodiaran)	Herpetologist	Mining / Gold	Ecorex / Tri-K	Guinea (Kankan)
2017	Scoping (Weaju)	Ecologist	Mining / Gold	Aureus / Avesoro	Liberia (Grand Cape Mt)
2017	Herpetofauna Monitoring (Woodbush)	Herpetologist	Forestry / Plantation	Komatipoort	South Africa (Limpopo)
2017	Environmental Impact Assessment (Majama Mine)	Herpetologist	Mining / Coal	Geo-Consult International	South Africa (Limpopo)
2017	Basic Assesment Kuruman (Red Sands)	Ecologist	Development / Filling Station	Midtursion Information Consultants	South Africa (Northern Cape)
2017	Herpetological Monitoring (Letseng Mine)	Herpetologist	Mining / Diamonds	Riaan / Letseng Diamonds	Lesotho (Mokhotlong District)
2017	Environmental Impact Assessment (Pavua)	Ecologist	Dam / Hydro-electric	TBC / Mott McDonald	Mozambique (Sofala)
2017	Basic Assessment (Knopjeslaagte)	Ecologist	Development	Nali / Mitrajaya Development	South Africa (Limpopo)
2017	Environmental Impact Assessment (Skurvekop)	Herpetologist	Mining / Coal	TBC / Exxaro	South Africa (Mpumalanga)
2016 - 2017	Environmental Impact Assessment (dual season)	Herpetologist	Mining / Gold	Aureus	Liberia (Grand Cape Mt)
2016	Environmental Impact Assessment (Inhassoro)	Herpetologist	Development / Industrial	Sasol / Golder / Mark Wood Consultants	Mozambique(Inhambane)
2016	Walkdown (Zonderwater)	Herpetologist	Mining / Iron Ore	EkolInfo / Exxaro	South Africa (Limpopo)
2016	Environmental Impact Assessment	Herpetologist	Dam/Hydro-electric	Mott MacDonald	Mozambique(Inhambane)
2016	Sasol REIA Ecology	Herpetologist	Oil & Gas	ERM	Mozambique(Inhambane)
2016	Angola - Okavango Wilderness Project	Herpetologist	Science/Research	National Geographic	Angola (Moxico)
2016	Rhino Oil& Gas - GIS project	GIS Specialist	GIS project	TBC / Rhino Oil & Gas	South Africa (EC, KZN, MPU, GAU)
2015	Environmental Impact Assessment	Herpetologist	Mining / Uranium & Molybdenum	TBC / Ferret	South Africa (Western & Eastern Cape)
2015	Environmental Impact Assessment (dual season)	Herpetologist	Mining / Gold	Aureus	Liberia (Grand Cape Mt)
2015	Gap Analysis	Herpetologist	Mining / Gold	Aureus	Liberia (Grand Cape Mt)
2015	Rapid Bio Survey	Herpetologist	n/a	n/a	South Africa (Limpopo)
2015	Monitoring - Terrestrial Fauna & Flora	Fauna specialist & Ecologist	Mining / Coal	Golder Associates / Rio Tinto Mozambique	Mozambique (Tete)
2015	Rapid Grassland Assessment	Ecologist		Bokamoso	South Africa
2015	Research Platysaurus lizards	Herpetologist	Research / Taxonomy	n/a	South Africa (Limpopo)
2014	Biodiversity Assessment with EIA	Herpetologist		Impacto / Italthai	Mozambique (Zambezia & Tete)

Luke Verburgt

Time span	Nature of project	Capacity	Industry / Sector	Client / Developer	Country (Province)
2014	Biodiversity Assessment	Ecologist	Development / Farming	Red Ant	South Africa (Gauteng)
2014	Environmental Impact Assessment - Update & Expansion	Herpetologist	Mining / Oil & Gas	Impacto & RS2 / Anadarko	Mozambique (Cabo Delgado)
2014	Flora & Fauna Biodiversity Assessment	Ecologist		Impacto / Kingho	Mozambique (Tete)
2014	Biodiversity Assessment (dual season)	Herpetologist	Mining / Iron Ore	EkolInfo / Exxaro	South Africa (Limpopo)
2013	Biodiversity Assessment	Herpetologist	Mining / Coal	EkolInfo / Exxaro	South Africa (Mpumalanga)
2013	Flora & Fauna Biodiversity Assessment with EIA	Ecologist	Development / Industrial	Worley Parsons / ArcelorMittal	South Africa (Western Cape)
2013	Biodiversity Assessment	Herpetologist	Mining / Coal	EkolInfo / Coffey Mining	Mozambique (Tete)
2013	Biodiversity Assessment	Herpetologist	Development / Housing	EkolInfo	South Africa (Gauteng)
2013	Environmental Management Plan & Tree marking & Walkdown	Ecologist	Energy / Transmission	Baagi / ESKOM	South Africa (Northern Cape)
2013	Flora & Fauna Biodiversity Assessment with EIA	Herpetologist	Agriculture / Forestry	Impacto / Portucel	Mozambique (Zambezia & Manica)
2013	Bullfrog survey with EIA & recommendations for tailings storage facility	Herpetologist	Mining / Platinum	Prescali	South Africa (North-West)
2013	Flora & Fauna Biodiversity Assessment with EIA	Herpetologist & Mammalogist / Fauna specialist	Agriculture / Sugarcane	Impacto / MAI	Mozambique (Gaza)
2013	Environmental Impact Assessment - Update & Expansion	Herpetologist	Mining / Oil & Gas	Impacto & RS2 / Anadarko	Mozambique (Cabo Delgado)
2013	Environmental Impact Assessment (dual season)	Herpetologist	Mining / Iron Ore	ERM / Western Cluster Limited	Liberia (Bomi County / Grand Cape Mt)
2012 - 2013	Environmental Impact Assessment (dual season)	Herpetologist	Mining / Iron Ore	ERM / Western Cluster Limited	Liberia (Bomi County or Grand Cape Mt)
2012	Biodiversity Assessment	Herpetologist	Mining / Coal	EkolInfo / Coffey Mining	Mozambique (Tete)
2012	Biodiversity Assessment	Ecologist	Development / Housing	Stefan Frylinck & Associates	South Africa (Mpumalanga)
2012	Flora & Fauna Biodiversity Assessment with dual season EIA	Herpetologist	Mining / Iron Ore	EkolInfo / Exxaro	South Africa (Limpopo)
2012	Biodiversity Assessment	Herpetologist	Mining / Coal	Borent / Exxaro	South Africa (Kwa-Zulu Natal)
2012	Biodiversity Assessment	Herpetologist	Mining / Coal	Borent / Exxaro	South Africa (Mpumalanga)
2012	Flora & Fauna Biodiversity Assessment with dual season EIA	Herpetologist	Mining / Oil & Gas	Impacto & ERM / Anadarko	Mozambique (Cabo Delgado)
2012	Health & Safety Service - Container clearing	Herpetologist	Mining / Oil & Gas	Anadarko	Mozambique (Cabo Delgado)
2012	Environmental Impact Assessment (single season)	Herpetologist	Mining / Infrastructure	ERM / China Union	Liberia (Bong County)
2012	Scoping Assessment	Herpetologist	Mining / Iron Ore	ERM / China Union	Liberia (Bong County)
2012	Environmental Training - Venomous Snakes	Course Presenter	Education & Training	Geo Pollution Technologies	South Africa (Gauteng)

Luke Verburgt

Time span	Nature of project	Capacity	Industry / Sector	Client / Developer	Country (Province)
2012	Python Scoping	Herpetologist	Development	Pachnoda	South Africa ()
2011	Scoping Assessment for EIA	Herpetologist	Mining / Coal	EkolInfo / Anglo Coal	South Africa (Limpopo)
2011	Environmental Impact Assessment (single season)	Herpetologist	Mining / Iron Ore	Pachnoda / Aquila Steel	South Africa (Limpopo)
2011	Research	Herpetologist	Research / Taxonomy	Macquarie University Australia / Martin Whiting	South Africa (Limpopo)
2011	Faunal Assessment with dual season EIA	Herpetologist	Mining / Coal	Impacto / Ncondezi	Mozambique (Tete)
2011	Aerial Ecological Survey	Ecologist	Energy / Transmission	Promap / Madagascar Government	Madagascar (Toamasina / Antananarivo)
2011	Flora & Fauna Biodiversity Assessment with EIA	Herpetologist	Mining / Coal	Rural Maintenance / Malawi Government	Malawi (Northern)
2011	Faunal Assessment with EIA	Herpetologist	Hydrology / Water security	Impacto / Moamba Major Damming Project	Mozambique (Maputo)
2011	Flora & Fauna Biodiversity Assessment with EIA	Fauna specialist & Ecologist	Mining / Coal	Impacto / Jindal	Mozambique (Tete)
2011	Flora & Fauna Biodiversity Assessment with dual season EIA	Herpetologist	Mining / Oil & Gas	Impacto & ERM / Anadarko	Mozambique (Cabo Delgado)
2011	Flora & Fauna Biodiversity Assessment - dual season EIA	Herpetologist	Mining / Coal	EkolInfo	South Africa (Mpumalanga)
2011	Flora & Fauna Biodiversity Assessment with dual season EIA	Herpetologist	Mining / Oil & Gas	Impacto & ERM / Anadarko	Mozambique (Cabo Delgado)
2011	Flora & Fauna Biodiversity Assessment - dual season EIA	Herpetologist	Mining / Coal	EkolInfo	South Africa (Mpumalanga)
2010 - 2011	Environmental Training - Dangerous Game & Venomous Snakes	Course Presenter	Energy / Education & Training	Endangered Wildlife Trust (EWT) / ESKOM	South Africa (Throughout)
2010 - 2011	Flora & Fauna Biodiversity Assessment (dual season)	Herpetologist	Energy / Hydroelectricity	Impacto / Mozambique Government	Mozambique (Tete)
2010	Python Scoping & Vegetation Functionality	Herpetologist	Agriculture / Livestock	AGES	South Africa (Gauteng)
2010	Python Scoping	Herpetologist	Development / Housing	AGES	South Africa (Gauteng)
2010	Health & Safety Service - Snake removal	Herpetologist	Energy / Health & Safety	ESKOM	South Africa ()
2010	Monitoring	Assistant Mammalogist	Mining / Coal	Impacto / VALE	Mozambique (Tete)
2010	Monitoring	Herpetologist	Research / Biodiversity	University of Pretoria / CEFS	South Africa (Gauteng)
2010	Flora & Fauna Biodiversity Assessment with EIA	Herpetologist	Energy / Hydroelectricity	Rural Maintenance / Malawi Government	Malawi (Northern)
2009	Herpetofauna bio-survey on Dronfield, Benfontein & Rooipoort	Herpetologist	Development / Conservation	De Beers	South Africa (Northern Cape)
2009	Python Scoping	Herpetologist	Development / Agriculture	EkolInfo	South Africa (Gauteng)
2008	Herpetofauna bio-survey on Tswalu Kalahari Reserve	Herpetologist	Development / Conservation	De Beers	South Africa (Northern Cape)

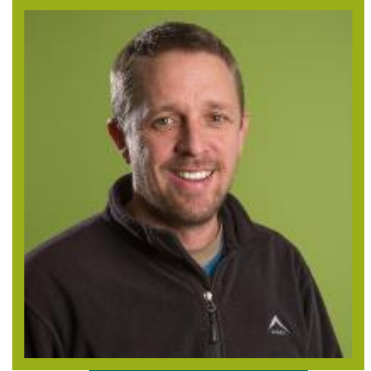
Luke Verburgt

Time span	Nature of project	Capacity	Industry / Sector	Client / Developer	Country (Province)
2007	Herpetology Specialist Study	Herpetologist	Mining / Coal	Ferret & Environmental Services / Borent	South Africa (Western & Eastern Cape)
2007	Herpetology Specialist Study	Herpetologist	Mining / Coal	Ferret & Environmental Services / Borent	South Africa (Mpumalanga)
2007	Herpetology Specialist Study	Herpetologist	Mining / Coal	Ferret & Environmental Services / Borent	South Africa (Mpumalanga)
2007	Herpetology Specialist Study	Herpetologist	Mining / Coal	Ferret & Environmental Services / Borent	South Africa (Mpumalanga)
2007	Herpetology Specialist Study	Herpetologist	Mining / Coal	Ferret Mining & Environmental Services / Borent	South Africa (Gauteng)
2006	Herpetology Specialist Study	Herpetologist	Mining / Uranium	Ferret & Environmental Services / Borent	South Africa (Mpumalanga)
2003	Herpetology Specialist Study	Herpetologist	Development / Housing	EcoCheck / Environmental Services and Art	South Africa (Gauteng)

Luke Verburgt

Personal details

Full Name James DABROWSKI
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Nationality South African
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Phone +27 088 557 5688
ID number 760720 5075083



Education

Completed	Degree and Institution
1994	Matric, Hilton College, KwaZulu Natal, South Africa
1998	BSc in Zoology, University of Stellenbosch, Stellenbosch, South Africa
1999	BSc (Honours) in Zoology, University of Stellenbosch, Stellenbosch, South Africa
2001	MSc in Zoology (Aquatic Ecology and Ecotoxicology), University of Stellenbosch, Stellenbosch, South Africa.
2004	PhD in Zoology (Aquatic Ecology and Ecotoxicology), University of Cape Town, Cape Town, South Africa

Memberships & Certificates

SACNASP registration for Water Resources (Registration # 114084)
RPAS Pilot License (License # 0275003037)
Research Associate: Nelson Mandela University
Research Associate: Freshwater Research Centre

Other Training

River Health Ecstatus Models: 2006 (Department of Water Affairs and Forestry)

Publications & Contributions

Petersen, F., Dabrowski, J.M., and Forbes, P.B.C. (2017). Identifying potential surface water sampling sites for emerging chemical pollutants in Gauteng Province, South Africa. *Water SA*, 43(1), 153-165.

Dabrowski, J., Baldwin, D.S., Dabrowski, J.M., Hill, L., and Shadung, J. (2017). Impact of temporary desiccation on the mobility of nutrients and metals from sediments of Loskop Reservoir, Olifants River. *Water SA*, 43(1), 7-16.

Stehle, S, Dabrowski, J.M., Bangert U. and Schulz R. (2016). Erosion rills offset the efficacy of vegetated buffer strips to mitigate pesticide exposure in surface waters. *Science of the Total Environment*. 545-546: 171-183.

Nsibande, S.A., Dabrowski, J.M., van der Walt, E., Venter, A. and Forbes, P.B.C. (2015). Validation of the AGDISP model for predicting airborne atrazine spray drift: A South African ground application case study. *Chemosphere* 138: 454-461.

Dabrowski, J.M. (2015) Development of pesticide use maps for South Africa. *South African Journal of Science*. 111:1-7.

Dabrowski, J.M., Dabrowski, J., Hill, L., MacMillan, P. and Oberholster, P.J. (2014) Fate, transport and effects of pollutants originating from acid mine drainage in the Olifants River, South Africa. *River Research and Applications*. DOI: 10.1002/rra.2833.

Dabrowski, J.M. (2014) Applying SWAT to predict ortho-phosphate loads and trophic status in four reservoirs in the upper Olifants catchment, South Africa. *Hydrology and Earth System Sciences* 14: 2629-2643.

Dabrowski, J., Oberholster, P.J., Dabrowski, J.M. (2014) Water quality of Flag Boshielo Dam, Olifants River, South Africa: Historical trends and impact of drought. *Water SA* 40:345-

James Dabrowski

Dabrowski, J.M., Shadung J. and Wepener, V. (2014) Prioritizing agricultural pesticides used in South Africa based on their environmental mobility and potential human health effects. *Environment International* 62: 31-40.

Dabrowski J., Oberholster P.J., Dabrowski J.M., Le Brasseur J. and Gieskes J. (2013) Chemical characteristics and limnology of Loskop Dam on the Olifants River (South Africa), in light of recent fish and crocodile mortalities. *Water SA* 39(5): 675-686.

Dabrowski, J.M. and Balderacchi M. (2013) Development and field validation of an indicator to assess the relative mobility and risk of pesticides in the Lourens River catchment, South Africa. *Chemosphere* 93(10): 2433-2443.

Dabrowski, J.M. and De Klerk, L.P. (2013) An assessment of the impact of different land use activities on water quality in the upper Olifants catchment. *Water SA* 39(2): 231-244

Masekoameng, K.E., Leaner, J.J and Dabrowski, J.M. (2010) Trends in anthropogenic mercury emissions estimated for South Africa during 2000-2006. *Atmospheric Environment*. 44(25): 3007-3014.

Dabrowski, J.M., Ashton, P.J. and Masekoameng, E. (2009) Analysis of Virtual Water Flows Associated with the Trade of Maize in the SADC Region: Importance of Scale. *Hydrological and Earth System Sciences*. 13: 1-11.

Dabrowski, J.M., Ashton, P.J., Murray, K., Leaner, J.J. and Mason, R.P. (2008) Anthropogenic mercury emissions in South Africa: coal combustion in power plants. *Atmospheric Environment* 42: 6620-6626.

Dabrowski, J.M., Murray, K., Ashton, P.J. and Leaner, J.J. (2009) Agricultural impacts on water quality and implications for virtual water trading decisions. *Ecological Economics*. 68: 1074-1082.

Dabrowski, J.M., Bollen, A., Bennett, E.R., and Schulz, R. (2006) Mitigation of azinphos-methyl in a vegetated stream: Comparison of runoff and spray drift. *Chemosphere* 62 (2), 204-212.

Dabrowski, J.M., Bollen A. and Schulz R. (2005) Combined effects of discharge, turbidity and pesticide on mayfly behaviour: experimental evaluation of spray drift and runoff scenarios. *Environmental Toxicology and Chemistry*. 24 (6), 1395-1402.

Dabrowski, J.M., Bollen, A. and Schulz, R. (2005) Interception of azinphosmethyl by emergent aquatic macrophytes: Potential spray drift mitigation in agricultural surface waters. *Agriculture, Ecosystems and the Environment*. 111, 340-348.

Dabrowski, J.M. and Schulz, R. (2003) Predicted and measured levels of azinphos-methyl in the Lourens River, South Africa: Comparison of runoff and spray drift. *Environmental Toxicology and Chemistry*. 22 (3) 494-500.

Schulz, R., Hahn, C., Bennett, E.R., Dabrowski, J.M., Thiere, G., & Peall, S.K.C. (2003) Fate and effects of azinphos-methyl in a flow-through wetland in South Africa. *Environmental Science and Technology*, 37 2139-2144.

Dabrowski, J.M., Peall, S.K.C., van Niekerk, A., Reinecke, A.J., Day, J. and Schulz, R. (2002) Predicting runoff-induced pesticide input in agricultural sub-catchment surface waters: linking catchment variables and contamination. *Water Research* 36 4975-4984.

Dabrowski, J.M., Peall, S.K.C., Reinecke, A.J., Liess, M. and Schulz, R. (2002) Runoff-related pesticide input into the Lourens River, South Africa: Basic data for exposure assessment and risk mitigation at the catchment scale. *Water, Air and Soil Pollution*. 135 265-283.

Schulz, R., Thiere, G., and Dabrowski, J.M. (2002) A combined microcosm and field approach to evaluate the aquatic toxicity of azinphos-methyl to stream communities. *Environmental Toxicology and Chemistry*. 21 (10) 2172-2178

Employment & work-related experiences

2017 - present Co-Director and Co-Owner of Confluent Environmental, Aquatic Ecologist and GIS specialist.
2006 - 2017 Principal Researcher, CSIR
2004 - 2006 Specialist Scientist, Department of Water Affairs and Forestry
2002 - 2004 Scientific Officer, University of Cape Town

Key areas of expertise

Aquatic ecology, ecological risk assessment, water quality, aquatic ecotoxicology, GIS mapping and modelling

Language skills

Language	Speaking	Reading	Writing
English	Excellent	Excellent	Excellent
Afrikaans	Good	Fair	Basic
German	Fair	Fair	None

References

Dr, PJ Ashton, carolash@iafrica.com
Dr, B Madikizela, bonanim@wrc.org.za
Dr, M Thwala mthwala@csir.ac.za

Project Experience

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Recent Project Experience

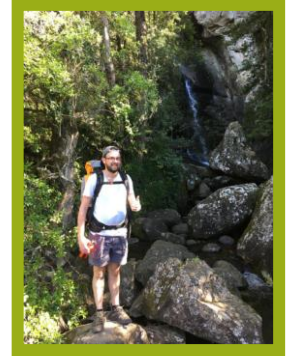
For further details please contact me directly under james@confluent.co.za

Time span	Nature of project	Capacity	Industry / Sector	Client / Developer	Country (Province)
2017	Aquatic Biodiversity Assessment	Aquatic Ecologist	Mining / Platinum	Agreenco / Lonmin	South Africa (North West)
2017	Hydrological & Water Quality Modelling	GIS Specialist	Research	University of Pretoria	South Africa (Gauteng)
2017	Aquatic Biodiversity Assessment	Aquatic Ecologist	Property Development	Bokamoso	South Africa (Gauteng)
2017	Spatial GIS analysis and ecological risk assessment	Aquatic Ecotoxicologist	Research / Aquatic Ecology	Water Research Commission	South Africa (National)
2017	Environmental Impact Assessment (Majama Mine)	Ornithologist	Mining / Coal	Geo-Consult International	South Africa (Limpopo)
2017	Scoping Study (Violsdrift Dam)	Aquatic Ecologist	Dam	Imperata / AECOM	South Africa (Northern Cape)
2016	Aquatic Risk Assessment Framework for Registration of Pesticides	Aquatic Ecotoxicologist	Research / Agriculture	Water Research Commission	South Africa (National)
2015-2016	Ecological Risk Assessment of Endangered Twee River Redfin.	Aquatic Ecologist	Research	CSIR	South Africa (National)
2015-2016	Development of a National Siltation Management Strategy	Water Quality Specialist	Government	DWS	South Africa (National)
2014-2016	Development of Irrigation Water Quality Guidelines	Aquatic Ecotoxicologist	Government	Water Research Commission / DWS	South Africa (National)
2010-2016	Investigation of the contamination of water resources by agricultural chemicals	Aquatic Ecotoxicologist	Research	Water Research Commission	South Africa (National)
2012-2014	Management of Freshwater Ecosystems in South Africa	Water Quality Specialist	Research	CSIR	South Africa (National)
2010-2013	Linking land use to water quality for effective water resource and ecosystem management		Research	Water Research Commission	South Africa (National)
2009-2013	Upper Olifants River Risk Assessment	Water Quality Specialist & Aquatic Ecologist	Research	Coaltech	South Africa (Mpumalanga)
2008-2009	Waterberg Aquatic Baseline Study	Water Quality Specialist & Aquatic Ecologist	Research	ESKOM	South Africa (Limpopo)
2008	Olifants Water Resources Development Project	Water Quality Specialist	Government	ACER / DWS	South Africa (Mpumalanga)

James Dabrowski

Personal details

Full Name Corné Niemandt
DOB 03 May 1989
Nationality RSA
Marital Status Single
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Phone +27 73 405 5708
ID number 890503 5067 083



Education

Completed Degree and Institution

2015 M.Sc. Plant Science, University of Pretoria, Pretoria, South Africa
2012 B.Sc. (Hons) Zoology, University of Pretoria, Pretoria, South Africa
2011 B.Sc. Ecology, University of Pretoria, Pretoria, South Africa
2007 High School, Merensky High School, Tzaneen, Limpopo Province, South Africa

Memberships & Certificates

- SACNASP Registered Candidate Natural Scientist in the field of Ecological Science - Registration Number: 116598 (Since November 2016)
- Grassland Society of South Africa (2018)
- South African Association of Botanists (2018)
- International Association for Impact Assessment (2018)
- SAAB Student Council Member (2015)
- SAEON Graduate Student Network Membership (2013-current)
- Invitation from Golden Key International Honour Society (2010)

Publications & Contributions

Niemandt, C. and Greve, M. 2016. Fragmentation metric proxies provide insights into historical biodiversity loss in critically endangered grassland. *Agriculture, Ecosystems and Environment* 235, 172–181. doi.org/10.1016/j.agee.2016.10.018

Niemandt, C., Kovacs, K.M., Lydersen, C., Dyer, B.M., Isaksen, K., Hofmeyr, G.J.G., & de Bruyn, P.J.N. 2015. Chinstrap and macaroni penguin diet and demography at Nyrøysa, Bouvetøya, Southern Ocean. *Antarctic Science*. doi:10.1017/S0954102015000504

Employment

I have compiled more than 35 ecological assessments under supervision and assisted with twelve EIAs, including Basic Assessments, Scoping and EIAs, S24G rectification applications, amendment applications, and prospecting and mining rights applications.

2017 - present Ecological Specialist and Consultant at Enviro-Insight CC.
I am responsible for conducting ecological assessments as part of the EIA process, GIS mapping, assist with EIAs and project management.

2016 - 2017 Ecologist and Consultant at Bokamoso Landscape Architects and Environmental Consultants CC
I was responsible for conducting ecological assessments as part of the EIA process and assist with EIAs

2015 Freelance (7 weeks) for Ecotone Freshwater Consultants CC

2012 - 2015 Tutor for first year Botany modules, University of Pretoria

2014 - 2015 Organiser of journal club for the Ecology unit, Department of Plant Science, University of Pretoria

2014 Guest lecturer for botany honours module BOT 788: Vegetation classification, Department of Plant Science, University of Pretoria

2014 Mentoring third year student part of mentorship programme, Department

Corné Niemandt

2013	Plant Science Part of invasive plant species survey for M2 Environmental Connections (MENCO)
2012	WULA and Aquatic Assistant at MENCO (6 weeks)
2012	Fieldwork at Richard Bay Minerals (1 month)

Key areas of expertise

Ecological surveys, Vegetation surveys, Impact Assessments, GIS mapping, Legal review, EAP

Courses attended

- Introduction to Environmental Impact Assessment and Auditing (Department of Geography, Geoinformatics and Meteorology).
- Basic Wetland Workshop (Gauteng wetland forum, DWS, GDARD, ARC).
- R for basic statistics (Department Plant Science, University of Pretoria).
- Basic statistics (Department Plant Science, University of Pretoria).
- General Linear Modelling (Department Plant Science, University of Pretoria).
- Georeferencing course (SANBI).
- Spatial Analysis with ArcGIS (ESRI, South Africa).

Conference contributions

- Spatial changes in vegetation cover over time in a highly threatened vegetation complex, Limpopo Province. 41st SAAB Annual Conference, Tshipise (University of Venda), January 2015.
- Anthropogenic impacts on a highly threatened vegetation complex, Limpopo province. XXth AETFAT Congress, Stellenbosch, January 2014.
- Anthropogenic impacts on a highly threatened vegetation complex, Limpopo province. Biodiversity Southern Africa Conference, Cape Town, December 2013.
- Land use change and the effects of habitat fragmentation on a highly threatened vegetation complex, Limpopo province. GSN SAEON Indibano Conference, Cape Town, August 2013.
- Spatial changes in vegetation cover over time in a highly threatened vegetation complex, Limpopo Province. 41st SAAB Annual Conference, Tshipise (University of Venda), January 2015.

Software Skills



Language skills

Language
English
Afrikaans

Speaking
Excellent
Excellent

Reading
Excellent
Excellent

Writing
Excellent
Excellent

References

- Dr. Veldie van Greuning (*Pr.Sci.Nat: D.Sc*; SACNASP mentor)
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Email: veldie.vangreuning@up.ac.za
- Mr. Luke Verburgt (*Pr.Sci.Nat.*; Co-Director Enviro-Insight)
Cell: +2783 7841997
Email: luke@enviro-insight.co.za
- Ms. Lizelle Gregory (Owner of Bokamoso Environmental)
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Work: +27123463810
Email: lizelle@bokamoso.net
- Dr. Michelle Greve (M.Sc. supervisor at UP)
Cell: +27766296826
Email: michelle.greve@up.ac.za

Corné Niemandt

Jaco van der Walt
Archaeologist

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Education:

Particulars of degrees/diplomas and/or other qualifications:

Name of University or Institution: University of Pretoria
Degree obtained : BA Heritage Tourism & Archaeology
Year of graduation : 2001

Name of University or Institution: University of the Witwatersrand
Degree obtained : BA Hons Archaeology
Year of graduation : 2002

Name of University or Institution : University of the Witwatersrand
Degree Obtained : MA (Archaeology)
Year of Graduation : 2012

Name of University or Institution : University of Johannesburg
Degree : PhD
Year : Currently Enrolled

EMPLOYMENT HISTORY:

2011 – Present: **Owner – HCAC (Heritage Contracts and Archaeological Consulting CC).**
2007 – 2010 : **CRM Archaeologist**, Managed the Heritage Contracts Unit at the University of the Witwatersrand.
2005 - 2007: **CRM Archaeologist**, Director of Matakoma Heritage Consultants
2004: **Technical Assistant**, Department of Anatomy University of Pretoria
2003: **Archaeologist**, Mapungubwe World Heritage Site
2001 - 2002: **CRM Archaeologists**, For R & R Cultural Resource Consultants, Polokwane
2000: **Museum Assistant**, Fort Klapperkop.

Countries of work experience include:

Republic of South Africa, Botswana, Zimbabwe, Mozambique, Tanzania, The Democratic Republic of the Congo, Lesotho and Zambia.

SELECTED PROJECTS INCLUDE:

Archaeological Impact Assessments (Phase 1)

Heritage Impact Assessment Proposed Discharge Of Treated Mine Water Via The Wonderfontein Spruit Receiving Water Body Specialist as part of team conducting an Archaeological Assessment for the Mmamabula mining project and power supply, Botswana
Archaeological Impact Assessment Mmamethlake Landfill
Archaeological Impact Assessment Libangeni Landfill

Linear Developments

Archaeological Impact Assessment Link Northern Waterline Project At The Suikerbosrand Nature Reserve
Archaeological Impact Assessment Medupi – Spitskop Power Line,
Archaeological Impact Assessment Nelspruit Road Development

Renewable Energy developments

Archaeological Impact Assessment Karoshoek Solar Project

Grave Relocation Projects

Relocation of graves and site monitoring at Chloorkop as well as permit application and liaison with local authorities and social processes with local stakeholders, Gauteng Province.
Relocation of the grave of Rifle Man Maritz as well as permit application and liaison with local authorities and social processes with local stakeholders, Ndumo, Kwa Zulu Natal.
Relocation of the Magolwane graves for the office of the premier, Kwa Zulu Natal
Relocation of the OSuthu Royal Graves office of the premier, Kwa Zulu Natal

Phase 2 Mitigation Projects

Field Director for the Archaeological Mitigation For Booyendal Platinum Mine, Steelpoort, Limpopo Province.
Principle investigator Prof. T. Huffman
Monitoring of heritage sites affected by the ARUP Transnet Multipurpose Pipeline under directorship of Gavin Anderson.
Field Director for the Phase 2 mapping of a late Iron Age site located on the farm Kameelbult, Zeerust, North West Province. Under directorship of Prof T. Huffman.
Field Director for the Phase 2 surface sampling of Stone Age sites effected by the Medupi – Spitskop Power Line, Limpopo Province

Heritage management projects

Platreef Mitigation project – mitigation of heritage sites and compilation of conservation management plan.

MEMBERSHIP OF PROFESSIONAL ASSOCIATIONS:

- Association of Southern African Professional Archaeologists. Member number 159
Accreditation:
 - Field Director Iron Age Archaeology
 - Field Supervisor Colonial Period Archaeology, Stone Age Archaeology and Grave Relocation
- Accredited CRM Archaeologist with SAHRA
- Accredited CRM Archaeologist with AMAFA
- Co-opted council member for the CRM Section of the Association of Southern African Association Professional Archaeologists (2011 – 2012)

PUBLICATIONS AND PRESENTATIONS

- A Culture Historical Interpretation, Aimed at Site Visitors, of the Exposed Eastern Profile of K8 on the Southern terrace at Mapungubwe.
 - J van der Walt, A Meyer, WC Nienaber
 - Poster presented at Faculty day, Faculty of Medicine University of Pretoria 2003
- 'n Reddingsondersoek na Anglo-Boereoorlog-ammunisie, gevind by Ifafi, Noordwes-Provinsie. South-African Journal for Cultural History 16(1) June 2002, with A. van Vollenhoven as co-writer.
- Fieldwork Report: Mapungubwe Stabilization Project.
 - WC Nienaber, M Hutten, S Gaigher, J van der Walt
 - Paper read at the Southern African Association of Archaeologists Biennial Conference 2004
- A War Uncovered: Human Remains from Thabantšho Hill (South Africa), 10 May 1864.
 - M. Steyn, WS Boshoff, WC Nienaber, J van der Walt
 - Paper read at the 12th Congress of the Pan-African Archaeological Association for Prehistory and Related Studies 2005
- Field Report on the mitigation measures conducted on the farm Bokfontein, Brits, North West Province .
 - J van der Walt, P Birkholtz, W. Fourie
 - Paper read at the Southern African Association of Archaeologists Biennial Conference 2007
- Field report on the mitigation measures employed at Early Farmer sites threatened by

development in the Greater Sekhukhune area, Limpopo Province. J van der Walt

- Paper read at the Southern African Association of Archaeologists Biennial Conference 2008
- Ceramic analysis of an Early Iron Age Site with vitrified dung, Limpopo Province South Africa.
 - J van der Walt. Poster presented at SAFA, Frankfurt Germany 2008
- Bantu Speaker Rock Engravings in the Schoemanskloof Valley, Lydenburg District, Mpumalanga (*In Prep*)
 - J van der Walt and J.P Celliers
- Sterkspruit: Micro-layout of late Iron Age stone walling, Lydenburg, Mpumalanga. W. Fourie and J van der Walt. A Poster presented at the Southern African Association of Archaeologists Biennial Conference 2011
- Detailed mapping of LIA stone-walled settlements' in Lydenburg, Mpumalanga. J van der Walt and J.P Celliers
 - Paper read at the Southern African Association of Archaeologists Biennial Conference 2011
- Bantu-Speaker Rock engravings in the Schoemanskloof Valley, Lydenburg District, Mpumalanga. J.P Celliers and J van der Walt
 - Paper read at the Southern African Association of Archaeologists Biennial Conference 2011
- Pleistocene hominin land use on the western trans-Vaal Highveld ecoregion, South Africa, Jaco van der Walt.
 - J van der Walt. Poster presented at SAFA, Toulouse, France. Biennial Conference 2016

REFERENCES:

1. Prof Marlize Lombard Senior Lecturer, University of Johannesburg, South Africa
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2. Prof TN Huffman Department of Archaeology Tel: (011) 717 6040
University of the Witwatersrand
3. Alex Schoeman University of the Witwatersrand
E-mail: Alex.Schoeman@wits.ac.za