+27 823 536 515 craig.c@bioinsight.co.za www.bioinsight.co.za

#### Profile



**■** Experience:



- 34 proj.
- Worked in countries:
  South Africa
- Projects for countries: South Africa Mozambique Turkey

#### Skills

Field work .... Report writing •••• Project Management •••• Statistics  $\bullet \bullet \circ \circ \circ$ Bat Ecology ••000 Bird Ecology •••• GIS •••• Project Design & Layout  $\bullet \bullet \bullet \circ \circ$ Stakeholder Engagement

# + Employment

PROJECT MANAGER | BIOINSIGHT SOUTH AFRICA, SOUTH AFRICA Since 2014

ECOLOGIST | BIOINSIGHT SOUTH AFRICA, SOUTH AFRICA Since 2013

#### + Education

BSC IN CONSERVATION ECOLOGY (EQF LEVEL 5) Stellenbosch University, South Africa 2009 - 2013

••••

# **Bioinsight group projects**

Dioiiis	ngiic group p	a distribution of the state of
2020	Wind Energy	Bat Monitoring at height and Mitigation Plan. Due Diligence on Bird Shutdown on Demand Protocol and Bird Monitoring Reports. Kiyiköy Wind Farm - Turkey . Turkey.
2020	Electric sector	Birds & Bats Screening and Baseline Assessment for Kappa Powerline. South Africa.
2020		Noblesfontein WEF - Avifaunal Mitigation Plan. South Africa.
		Hartebeest Wind Energy Facility - Birds & Bats comparative assessment for turbine specification change. South Africa.
2019	Wind Energy	Noblesfontein WEF - Evaluating solutions for appropriate mitigation measures. South Africa.
2018	Oil & Gas	Ecological Monitoring of the Construction of the Replacement Village (RV) Ecological Monitoring of a Replacement Village Project associated to the development of a Liquefied Natural Gas Project of Anadarko Moçambique Area 1 Limitada (AMA 1) in Palma. Mozambique.
2018	Solar Energy	Faunal Impact Assessment for 3 proposed Solar Energy Facilities: Heuningklip, Doornfontein & Kruispad. South Africa.
2018	Wind Energy	Update of Avifaunal Specialist Reports for Boulders Wind Energy Farm. South Africa.
2018	Wind Energy	Juno Wind Energy Farm - Additional for Bat Report Updates. South Africa.
2018	Wind Energy	Diamond Wind Energy Farm Bird and Bat Data Validity, Monitoring and Impact Assessment Reports for Basic Assessment Process. South Africa.
2018	Wind Energy	Kudusberg Wind Energy Farm Bird and Bat Specialist Studies for Basic Assessment Process. South Africa.
2018	Wind Energy	Bird and Bat pre-construction phase monitoring program at Rondekop Wind Energy Facility, Western Cape Province. South Africa.
2018	Wind Energy	Rheboksfontein Wind Energy Farm Turbine Specification Amendment for Bat Monitoring Programme. South Africa.
2016	Wind Energy	Environmental Impact Assessment (Avifauna specialist impact assessment) of the proposed Sommerset East Wind Energy Facility, Eastern Cape, South Africa. South Africa.
2016	Wind Energy	Avifauna community pre-construction phase monitoring program of the proposed Haga Haga Wind Energy Facility, Eastern Cape Province, South Africa. South Africa.
2016	Wind Energy	Environmental Impact Assessment (Bat specialist impact assessment) of the proposed De Boom Wind Energy Facility, Western Cape, South Africa. South Africa.
2016	Wind Energy	Bird and Bat Pre-Construction Monitoring and Impact Assessment for the proposed Hartbeest WEF - Update on previous monitoring protocols. South Africa.
2016	Wind Energy	Fauna Specialist Ground-Truthing of the Copperton Wind Energy Facility, Northern Cape, South Africa. South Africa.
2015	Wind Energy	Bird community pre-construction monitoring program of the proposed Witsand Wind Energy Facility, Western Cape Province, South Africa. South Africa.
2015	Wind Energy	Bird community pre-construction phase monitoring program of the proposed Noblesfontein 2 Wind Energy Facility, Western Cape Province, South Africa. South Africa.
2015	Wind Energy	Bat community operation phase monitoring program of the ESKOM Sere Wind Energy Facility, Western Cape Province, South Africa (Year 1, 2 and 3). South Africa.
2015	Wind Energy	Environmental Impact Assessment (Fauna specialist impact assessment) of the proposed Spitskop West Wind Energy Facility, Eastern Cape, South Africa . South Africa .
2015	Wind Energy	Environmental Impact Assessment (Bat specialist impact assessment) of the proposed Kudusberg Wind Energy Facility, Northern Cape, South Africa. South Africa.
2015	Solar Energy	Environmental Impact Assessment (Avifauna specialist impact assessment) Heuningklip Solar Energy Facility, Western Cape, South Africa. South Africa.
2014	Wind Energy	Bird and Bat Post-construction Monitoring at Noblesfontein Wind Energy Facility (Northern Cape). South Africa.
2013	Wind Energy	Bird and bat pre-construction monitoring at Moorreesburg Wind Energy Facility (Western Cape, South Africa). South Africa.
2013	Wind Energy	Bird and bat pre-construction monitoring at Gouda II Wind Energy Facility (Western Cape, South Africa). South Africa.
2013	Wind Energy	Bird and bat pre-construction monitoring at Vredendal Wind Energy Facility (Western Cape, South Africa). South Africa.
2013	Wind Energy	Bird and bat pre-construction monitoring at Vredendal Wind Energy Facility (Western Cape, South Africa). South Africa.
2012	Wind Energy	Bird and bat pre-construction monitoring at Noblesfontein Wind Energy Facility (Northern Cape, South Africa). South Africa.
2012	Wind Energy	Scoping and bat ecological assessment for the Zen Wind Energy Facility project (Western Cape, South Africa). South Africa.
2012	Wind Energy	Bird and bat pre-construction monitoring at Swellendam Wind Energy Facility (Western Cape, South Africa). South Africa.
	Solar Energy	Data and report validity and accompanying letters (Avifauna & Fauna) of Kruispad Photovoltaic Solar Energy Facility (PVSEF) South Africa.
	Wind Energy	Avifauna and Bats Site Walk-through & Letters of Kudusherg Wind Energy Facility (WEE) (Northern

Wind Energy Avifauna and Bats Site Walk-through & Letters of Kudusberg Wind Energy Facility (WEF) (Northern

# + Training

2020	Programming	"Logic & Computational Thinking" online course offered by Microsoft, via edX. June, 2020.
2020	Programming	"Introduction to Python: Absolute Beginner" online course offered by Microsoft, via edX. April, 2020.
2020	Programming	"Introduction to Python: Fundamentals" online course offered by Microsoft, via edX. April, 2020.
2019	Wildlife handling	"Advanced Venomous Snake Handling" course offered by African Snakebite Institute. 27th October, 2019. Cape Town, South Africa.
2019	Wildlife handling	"Snake, Awareness, First Aid for Snakebite, & Venomous Snake Handling" course offered by African Snakebite Institute. 30th March, 2019. Cape Town, South Africa.
2019	Wildlife recovery	"Snake Rescue certificate". Certification offered by the African Snakebite Institute. 30th March, 2019.
2008	Aquaculture	"Aquaculture Production Management" Course by Stellenbosch University. 2008. Stellenbosch, South Africa.

# + Publications

2019	Oral presentation
	Wind Energy
	Impact
	Assessment

Campbell, C. (2019). A Short Story of Bird & Bat Monitoring on Wind Farms in South Africa. 1st Edition of WIBIS South Africa (WIBIS Summit). 28th May, 2019. Johannesburg, South Africa.

| Wind Energy Impacts

2017 Oral presentation Campbell, C., Ramalho, R., Cervantes, F., Retief, K., Marques, J., Paula, J., Neves, T., Mascarenhas, M. Leeuwner, L., Michael, M. (2017). Using detection dogs in bat and bird carcass searches in a South Africa's wind farm context: Benefits and constrains. 4th Conference on Wind energy and Wildlife impacts (CWW). 6 to 8 september 2017. Estoril, Portugal.

FEN 21-0034 July 2020



# SAS ENVIRONMENTAL GROUP OF COMPANIES – SPECIALIST CONSULTANT INFORMATION

# **CURRICULUM VITAE OF CHRISTEL DU PREEZ**

#### **PERSONAL DETAILS**

Position in Company Senior Scientist (Watercourse ecology)

Joined SAS Environmental Group of Companies 2016

#### MEMBERSHIP IN PROFESSIONAL SOCIETIES

MSc Environmental Sciences (North West University)

Professional member of the South African Council for Natural Scientific Professions (SACNASP) (SACNASP – Reg No. 120240/19)

Member of the Western Cape Wetland Forum (WCF)

Member of the Gauteng Wetland Forum (GWF)

# **EDUCATION**

#### Qualifications

BSc Hons Environmental Sciences (North West University)	2012
BSc Environmental and Biological Sciences (North West University)	2011
Short Courses	
Wetland and Aquatic plant Identification presented by Carin van Ginkel (Crispis Environmental)	2019
Wetland Management: Introduction and Delineation presented by the Centre of Environmental Management University of the Free State	2018
Tools for Wetland Assessment presented by Prof. F. Ellery and Rhodes University	2017
Basic Principles of ecological rehabilitation and mine closure presented by the Centre for Environmental Management North West University	2015

#### AREAS OF WORK EXPERIENCE

South Africa - Gauteng, Mpumalanga, Limpopo, Western Cape, Northern Cape, Eastern Cape

#### **KEY SPECIALIST DISCIPLINES**

#### **Freshwater Assessments**

- Desktop Freshwater Delineation
- Freshwater Verification Assessment
- Freshwater (wetland / riparian) Delineation and Assessment
- Freshwater Eco Service and Status Determination
- · Rehabilitation Assessment / Planning
- Maintenance and Management Plans
- Plant species and Landscape Plan
- Freshwater Offset Plan



2017

FEN 21-0034 July 2020



# SAS ENVIRONMENTAL GROUP OF COMPANIES – SPECIALIST CONSULTANT INFORMATION

# **CURRICULUM VITAE OF KIM MARAIS**

#### **PERSONAL DETAILS**

Position in Company Senior Scientist (Water Resource Manager)

Joined SAS Environmental Group of Companies

2015

#### MEMBERSHIP IN PROFESSIONAL SOCIETIES

Professional member of the South African Council for Natural Scientific Professions (SACNASP – Reg No. 117137/17)

Member of the Western Cape Wetland Forum (WCWF)

#### **EDUCATION**

#### Qualifications

BSc (Hons) Zoology (University of the Witwatersrand)	2012
BSc (Zoology and Conservation) (University of the Witwatersrand)	2011
Short Courses	
Aquatic and Wetland Plant Identification (Cripsis Environment)	2019
Tools for Wetland Assessment (Rhodes University)	2018
Certificate in Environmental Law for Environmental Managers (CEM)	2014
Certificate for Introduction to Environmental Management (CEM)	2013

#### **KEY SPECIALIST DISCIPLINES**

# **Biodiversity Assessments**

- Biodiversity Action Plans (BAP)
- Alien and Invasive Control Plans (AICP)
- Faunal Eco Scans
- Faunal Impact Assessments

# **Freshwater Assessments**

- Desktop Freshwater Delineation
- Freshwater Verification Assessment
- Freshwater (wetland / riparian) Delineation and Assessment
- Freshwater Eco Service and Status Determination
- Rehabilitation Assessment / Planning
- Watercourse Maintenance and Management Plans
- Freshwater Offset Plan

# **Aquatic Ecological Assessment and Water Quality Studies**

- Riparian Vegetation Integrity (VEGRAI)
- Water quality Monitoring
- Riverine Rehabilitation Plans

# Legislative Requirements, Processes and Assessments

- Water Use Applications (Water Use Licence Applications / General Authorisations)
- Water Use Audits
- Freshwater Resource Management and Monitoring as part of EMPR and WUL conditions
- Public Participation processes





# **Education & qualifications** *MSc, Palaeontology NMMU (Now NMU), Port Elizabeth, South Africa, 2011*

BSc Honours, Geology, NMMU, Port Elizabeth, South Africa, 2005

BSc Honours, GIS, NMMU, Port Elizabeth, South Africa, 2012

BSc, Geosciences, NMMU, Port Elizabeth, South Africa, 2005

# **Professional Affiliations**

South African Council for Natural Scientific Professions - Pr.Sci.Nat. - Professional Natural Scientist – 115344/2

# **Experience**

12 years Palaeontology, geology, environmental control, lecturing, and training

# Specialities/Areas of expertise

Palaeontology, Sedimentology, and Palaeolimnology

# Relevant project experience

Leopards Trail development, Baviaanskloof. Palaeotological impact assessment.

VW Expansion sediment analysis. Sample Preparation for analysis.

Coega Development Corporation Zone 1 Palaeontological Investigation. Dewald was paleontologist on site, during initial clearance and excavation in the CDC Zone 1.

Chatty Link Rd. Extension. ECO during road and storm water drain construction.

Kelvin Jones WWTW Upgrade. ECO during the upgrading of the water works in the Kelvin Jones facility in Uitenhage.

Kabah Langa Phase 6 Civil Service Infrastructure ECO during road and storm water drain construction.

# **Dewald Wilken**

# Palaeontologist/Geologist/Environmental Control Officer

Dewald is a palaeontologist and geologist with experience in palaeontological impact assessment, environmental control, ground water, potable water, effluent, and Hazardous waste

www.hatch.com Dewald Wilken I 1

Bloemendal Arterial Extension. Dewald was ECO during the botanical survey, and the subsequent search and rescue of fauna and flora.

Malabar Extension 6 Phase 2 Housing. Dewald was ECO during the botanical survey, and the subsequent search and rescue of fauna and flora.

Jachtvlakte Precinct Sustainable Housing Plan: HS5B. Dewald was ECO during the botanical survey, and the subsequent search and rescue of fauna and flora.

# Coega Kop Aquatic Study

Field survey for wetlands in and around Coega Kop.

TPT Water and Effluent Monitoring. Sampling, analysis and reporting on the quality of effluent, storm water and drinking water.

TPT Bulk Terminal Monitoring.. Sampling, analysis and reporting on the quality/contamination of ground water from boreholes in and around the TPT Bulk Terminal (Manganese storage).

NMBM Water Quality Project. Sampling of the Baakens, Papenkuils, Shark, and Hume river water, for quality assessment.

Motherwell Canal Monitoring Sampling of water at the Motherwell Canal and artificial wetland.

Coega CDC Monitoring Sampling, analysis and reporting on the quality of the effluent from the CDC.

NMBM monitoring – Arlington, Koedoeskloof, iBhayi, Kwanobuhle. Sampling, analysis and reporting on the quality of ground water in and around the NMBM landfill sites.

Fry's Metal Groundwater Monitoring. Sampling, analysis and reporting on the quality of ground water in the Fry's Metal work yard..



**ELIZE BUTLER** 

PROFESSION: Palaeontologist

YEARS' EXPERIENCE: 26 years in Palaeontology

**EDUCATION:** B.Sc Botany and Zoology, 1988

University of the Orange Free State

B.Sc (Hons) Zoology, 1991

University of the Orange Free State

Management Course, 1991

University of the Orange Free State

M. Sc. Cum laude (Zoology), 2009

University of the Free State

**Dissertation title:** The postcranial skeleton of the Early Triassic non-mammalian Cynodont *Galesaurus planiceps*: implications for biology and lifestyle

# **MEMBERSHIP**

Palaeontological Society of South Africa (PSSA) 2006-currently

# **EMPLOYMENT HISTORY**

Part time Laboratory assistant Department of Zoology & Entomology

University of the Free State Zoology 1989-

1992

Part time laboratory assistant	Department of Virology
	University of the Free State Zoology 1992
Research Assistant	National Museum, Bloemfontein 1993 – 1997

National Museum, Bloemfontein

Principal Research Assistant

#### **TECHNICAL REPORTS**

**Butler, E. 2014.** Palaeontological Impact Assessment of the proposed development of private dwellings on portion 5 of farm 304 Matjesfontein Keurboomstrand, Knysna District, Western Cape Province. Bloemfontein.

**Butler, E. 2014.** Palaeontological Impact Assessment for the proposed upgrade of existing water supply infrastructure at Noupoort, Northern Cape Province. 2014. Bloemfontein.

**Butler, E. 2015.** Palaeontological impact assessment of the proposed consolidation, re-division and development of 250 serviced erven in Nieu-Bethesda, Camdeboo local municipality, Eastern Cape. Bloemfontein.

**Butler, E. 2015.** Palaeontological impact assessment of the proposed mixed land developments at Rooikraal 454, Vrede, Free State. Bloemfontein.

**Butler, E. 2015.** Palaeontological exemption report of the proposed truck stop development at Palmiet 585, Vrede, Free State. Bloemfontein.

**Butler, E. 2015.** Palaeontological impact assessment of the proposed Orange Grove 3500 residential development, Buffalo City Metropolitan Municipality East London, Eastern Cape. Bloemfontein.

**Butler, E. 2015.** Palaeontological Impact Assessment of the proposed Gonubie residential development, Buffalo City Metropolitan Municipality East London, Eastern Cape Province. Bloemfontein.

**Butler**, **E. 2015.** Palaeontological Impact Assessment of the proposed Ficksburg raw water pipeline. Bloemfontein.

**Butler, E. 2015.** Palaeontological Heritage Impact Assessment report on the establishment of the 65 mw Majuba Solar Photovoltaic facility and associated infrastructure on portion 1, 2 and 6 of the farm Witkoppies 81 HS, Mpumalanga Province. Bloemfontein.

**Butler, E. 2015.** Palaeontological Impact Assessment of the proposed township establishment on the remainder of portion 6 and 7 of the farm Sunnyside 2620, Bloemfontein, Mangaung metropolitan municipality, Free State, Bloemfontein.

**Butler, E. 2015.** Palaeontological Impact Assessment of the proposed Woodhouse 1 photovoltaic solar energy facilities and associated infrastructure on the farm Woodhouse729, near Vryburg, North West Province. Bloemfontein.

**Butler, E. 2015.** Palaeontological Impact Assessment of the proposed Woodhouse 2 photovoltaic solar energy facilities and associated infrastructure on the farm Woodhouse 729, near Vryburg, North West Province. Bloemfontein.

**Butler, E. 2015.** Palaeontological Impact Assessment of the proposed Orkney solar energy farm and associated infrastructure on the remaining extent of Portions 7 and 21 of the farm Wolvehuis 114, near Orkney, North West Province. Bloemfontein.

**Butler, E. 2015.** Palaeontological Impact Assessment of the proposed Spectra foods broiler houses and abattoir on the farm Maiden Manor 170 and Ashby Manor 171, Lukhanji Municipality, Queenstown, Eastern Cape Province. Bloemfontein.

**Butler, E. 2016.** Palaeontological Impact Assessment of the proposed construction of the 150 MW Noupoort concentrated solar power facility and associated infrastructure on portion 1 and 4 of the farm Carolus Poort 167 and the remainder of Farm 207, near Noupoort, Northern Cape. Prepared for Savannah Environmental. Bloemfontein.

**Butler, E. 2016.** Palaeontological Impact Assessment of the proposed Woodhouse 1 Photovoltaic Solar Energy facility and associated infrastructure on the farm Woodhouse 729, near Vryburg, North West Province. Bloemfontein.

**Butler, E. 2016.** Palaeontological Impact Assessment of the proposed Woodhouse 2 Photovoltaic Solar Energy facility and associated infrastructure on the farm Woodhouse 729, near Vryburg, North West Province. Bloemfontein.

**Butler, E. 2016.** Proposed 132kV overhead power line and switchyard station for the authorised Solis Power 1 CSP project near Upington, Northern Cape. Bloemfontein.

**Butler, E. 2016.** Palaeontological Impact Assessment of the proposed Senqu Pedestrian Bridges in Ward 5 of Senqu Local Municipality, Eastern Cape Province. Bloemfontein.

**Butler, E. 2016.** Recommendation from further Palaeontological Studies: Proposed Construction of the Modderfontein Filling Station on Erf 28 Portion 30, Founders Hill, City Of Johannesburg, Gauteng Province. Bloemfontein.

**Butler, E. 2016.** Recommendation from further Palaeontological Studies: Proposed Construction of the Modikwa Filling Station on a Portion of Portion 2 of Mooihoek 255 Kt, Greater Tubatse Local Municipality, Limpopo Province. Bloemfontein.

**Butler, E. 2016.** Recommendation from further Palaeontological Studies: Proposed Construction of the Heidedal filling station on Erf 16603, Heidedal Extension 24, Mangaung Local Municipality, Bloemfontein, Free State Province. Bloemfontein.

**Butler, E. 2016.** Recommended Exemption from further Palaeontological studies: Proposed Construction of the Gunstfontein Switching Station, 132kv Overhead Power Line (Single Or Double Circuit) and ancillary infrastructure for the Gunstfontein Wind Farm Near Sutherland, Northern Cape Province. Savannaha South Africa. Bloemfontein.

**Butler, E. 2016.** Palaeontological Impact Assessment of the proposed Galla Hills Quarry on the remainder of the farm Roode Krantz 203, in the Lukhanji Municipality, division of Queenstown, Eastern Cape Province. Bloemfontein.

**Butler, E. 2016.** Chris Hani District Municipality Cluster 9 water backlog project phases 3a and 3b: Palaeontology inspection at Tsomo WTW. Bloemfontein.

**Butler, E. 2016.** Palaeontological Impact Assessment of the proposed construction of the 150 MW Noupoort concentrated solar power facility and associated infrastructure on portion 1 and 4 of the farm Carolus Poort 167 and the remainder of Farm 207, near Noupoort, Northern Cape. Savannaha South Africa. Bloemfontein.

**Butler, E. 2016.** Palaeontological Impact Assessment of the proposed upgrading of the main road MR450 (R335) from the Motherwell to Addo within the Nelson Mandela Bay Municipality and Sunday's river valley Local Municipality, Eastern Cape Province. Bloemfontein.

**Butler, E. 2016.** Palaeontological Impact Assessment construction of the proposed Metals Industrial Cluster and associated infrastructure near Kuruman, Northern Cape Province. Savannaha South Africa. Bloemfontein.

**Butler, E. 2016.** Palaeontological Impact Assessment for the proposed construction of up to a 132kv power line and associated infrastructure for the proposed Kalkaar Solar Thermal Power Plant near Kimberley, Free State and Northern Cape Provinces. PGS Heritage. Bloemfontein.

**Butler, E. 2016.** Palaeontological Impact Assessment of the proposed development of two burrow pits (DR02625 and DR02614) in the Enoch Mgijima Municipality, Chris Hani District, Eastern Cape.

**Butler, E. 2016.** Ezibeleni waste Buy-Back Centre (near Queenstown), Enoch Mgijima Local Municipality, Eastern Cape. Bloemfontein.

**Butler, E. 2016.** Palaeontological Impact Assessment for the proposed construction of two 5 Mw Solar Photovoltaic Power Plants on Farm Wildebeestkuil 59 and Farm Leeuwbosch 44, Leeudoringstad, North West Province. Bloemfontein.

**Butler, E. 2016.** Palaeontological Impact Assessment for the proposed development of four Leeuwberg Wind farms and basic assessments for the associated grid connection near Loeriesfontein, Northern Cape Province. Bloemfontein.

**Butler, E. 2016.** Palaeontological impact assessment for the proposed Aggeneys south prospecting right project, Northern Cape Province. Bloemfontein.

**Butler, E. 2016.** Palaeontological impact assessment of the proposed Motuoane Ladysmith Exploration right application, Kwazulu Natal. Bloemfontein.

**Butler, E. 2016.** Palaeontological impact assessment for the proposed construction of two 5 MW solar photovoltaic power plants on farm Wildebeestkuil 59 and farm Leeuwbosch 44, Leeudoringstad, North West Province. Bloemfontein.

**Butler, E. 2016**: Palaeontological desktop assessment of the establishment of the proposed residential and mixed use development on the remainder of portion 7 and portion 898 of the farm Knopjeslaagte 385 Ir, located near Centurion within the Tshwane Metropolitan Municipality of Gauteng Province. Bloemfontein.

**Butler, E. 2017.** Palaeontological impact assessment for the proposed development of a new cemetery, near Kathu, Gamagara local municipality and John Taolo Gaetsewe district municipality, Northern Cape. Bloemfontein.

**Butler, E. 2017.** Palaeontological Impact Assessment Of The Proposed Development Of The New Open Cast Mining Operations On The Remaining Portions Of 6, 7, 8 And 10 Of The Farm Kwaggafontein 8 In The Carolina Magisterial District, Mpumalanga Province. Bloemfontein.

**Butler, E. 2017.** Palaeontological Desktop Assessment for the Proposed Development of a Wastewater Treatment Works at Lanseria, Gauteng Province. Bloemfontein.

**Butler, E. 2017.** Palaeontological Scoping Report for the Proposed Construction of a Warehouse and Associated Infrastructure at Perseverance in Port Elizabeth, Eastern Cape Province.

**Butler, E. 2017.** Palaeontological Desktop Assessment for the Proposed Establishment of a Diesel Farm and a Haul Road for the Tshipi Borwa mine Near Hotazel, In the John Taolo Gaetsewe District Municipality in the Northern Cape Province. Bloemfontein.

**Butler, E. 2017.** Palaeontological Desktop Assessment for the Proposed Changes to Operations at the UMK Mine near Hotazel, In the John Taolo Gaetsewe District Municipality in the Northern Cape Province. Bloemfontein.

**Butler, E. 2017.** Palaeontological Impact Assessment for the Development of the Proposed Ventersburg Project-An Underground Mining Operation near Ventersburg and Henneman, Free State Province. Bloemfontein.

**Butler, E. 2017.** Palaeontological desktop assessment of the proposed development of a 3000 MW combined cycle gas turbine (CCGT) in Richards Bay, Kwazulu-Natal. Bloemfontein.

**Butler, E. 2017.** Palaeontological Impact Assessment for the Development of the Proposed Revalidation of the lapsed General Plans for Elliotdale, Mbhashe Local Municipality. Bloemfontein.

**Butler, E. 2017.** Palaeontological assessment of the proposed development of a 3000 MW Combined Cycle Gas Turbine (CCGT) in Richards Bay, Kwazulu-Natal. Bloemfontein.

**Butler, E. 2017.** Palaeontological Impact Assessment of the proposed development of the new open cast mining operations on the remaining portions of 6, 7, 8 and 10 of the farm Kwaggafontein 8 10 in the Albert Luthuli Local Municipality, Gert Sibande District Municipality, Mpumalanga Province. Bloemfontein.

**Butler, E. 2017.** Palaeontological Impact Assessment of the proposed mining of the farm Zandvoort 10 in the Albert Luthuli Local Municipality, Gert Sibande District Municipality, Mpumalanga Province. Bloemfontein.

**Butler, E. 2017.** Palaeontological Desktop Assessment for the proposed Lanseria outfall sewer pipeline in Johannesburg, Gauteng Province. Bloemfontein.

**Butler, E. 2017.** Palaeontological Desktop Assessment of the proposed development of open pit mining at Pit 36W (New Pit) and 62E (Dishaba) Amandelbult Mine Complex, Thabazimbi, Limpopo Province. Bloemfontein.

**Butler, E. 2017.** Palaeontological impact assessment of the proposed development of the sport precinct and associated infrastructure at Merrifield Preparatory school and college, Amathole Municipality, East London. PGS Heritage. Bloemfontein.

**Butler, E. 2017.** Palaeontological impact assessment of the proposed construction of the Lehae training and fire station, Lenasia, Gauteng Province. Bloemfontein.

**Butler, E. 2017.** Palaeontological Desktop Assessment of the proposed development of the new open cast mining operations of the Impunzi mine in the Mpumalanga Province. Bloemfontein.

**Butler, E. 2017.** Palaeontological Desktop Assessment of the construction of the proposed Viljoenskroon Munic 132 KV line, Vierfontein substation and related projects. Bloemfontein.

**Butler, E. 2017.** Palaeontological Desktop Assessment of the proposed rehabilitation of 5 ownerless asbestos mines. Bloemfontein.

**Butler, E. 2017.** Palaeontological Desktop Assessment of the proposed development of the Lephalale coal and power project, Lephalale, Limpopo Province, Republic of South Africa. Bloemfontein.

**Butler, E. 2017.** Palaeontological Impact Assessment of the proposed construction of a 132KV powerline from the Tweespruit distribution substation (in the Mantsopa local municipality) to the Driedorp rural substation (within the Naledi local municipality), Free State province. Bloemfontein.

**Butler, E. 2017.** Palaeontological Desktop Assessment of the proposed development of the new coal-fired power plant and associated infrastructure near Makhado, Limpopo Province. Bloemfontein.

**Butler, E. 2017.** Palaeontological Impact Assessment of the proposed construction of a Photovoltaic Solar Power station near Collett substation, Middelburg, Eastern Cape. Bloemfontein.

**Butler, E. 2017.** Palaeontological Impact Assessment for the proposed township establishment of 2000 residential sites with supporting amenities on a portion of farm 826 in Botshabelo West, Mangaung Metro, Free State Province. Bloemfontein.

**Butler, E. 2017.** Palaeontological Desktop Assessment for the proposed prospecting right project without bulk sampling, in the Koa Valley, Northern Cape Province. Bloemfontein.

**Butler**, **E. 2017.** Palaeontological Desktop Assessment for the proposed Aroams prospecting right project, without bulk sampling, near Aggeneys, Northern Cape Province. Bloemfontein.

**Butler, E. 2017.** Palaeontological Impact Assessment of the proposed Belvior aggregate quarry II on portion 7 of the farm Maidenhead 169, Enoch Mgijima Municipality, division of Queenstown, Eastern Cape. Bloemfontein.

**Butler, E. 2017.** PIA site visit and report of the proposed Galla Hills Quarry on the remainder of the farm Roode Krantz 203, in the Lukhanji Municipality, division of Queenstown, Eastern Cape Province. Bloemfontein.

**Butler**, E. 2017. Palaeontological Impact Assessment of the proposed construction of Tina Falls Hydropower and associated power lines near Cumbu, Mthlontlo Local Municipality, Eastern Cape. Bloemfontein.

**Butler, E. 2017.** Palaeontological Desktop Assessment of the proposed construction of the Mangaung Gariep Water Augmentation Project. Bloemfontein.

**Butler, E. 2017.** Palaeontological Impact Assessment of the proposed Belvoir aggregate quarry II on portion 7 of the farm Maidenhead 169, Enoch Mgijima Municipality, division of Queenstown, Eastern Cape. Bloemfontein.

**Butler, E. 2017.** Palaeontological Impact Assessment of the proposed construction of the Melkspruit-Rouxville 132KV Power line. Bloemfontein.

**Butler, E. 2017** Palaeontological Desktop Assessment of the proposed development of a railway siding on a portion of portion 41 of the farm Rustfontein 109 is, Govan Mbeki local municipality, Gert Sibande district municipality, Mpumalanga Province. Bloemfontein.

**Butler, E. 2017.** Palaeontological Impact Assessment of the proposed consolidation of the proposed Ilima Colliery in the Albert Luthuli local municipality, Gert Sibande District Municipality, Mpumalanga Province. Bloemfontein.

**Butler, E. 2017.** Palaeontological Desktop Assessment of the proposed extension of the Kareerand Tailings Storage Facility, associated borrow pits as well as a storm water drainage channel in the Vaal River near Stilfontein, North West Province. Bloemfontein.

**Butler, E. 2017.** Palaeontological Desktop Assessment of the proposed construction of a filling station and associated facilities on the Erf 6279, district municipality of John Taolo Gaetsewe District, Ga-Segonyana Local Municipality Northern Cape. Bloemfontein.

**Butler, E. 2017.** Palaeontological Desktop Assessment of the proposed of the Lephalale Coal and Power Project, Lephalale, Limpopo Province, Republic of South Africa. Bloemfontein.

**Butler, E. 2017.** Palaeontological Desktop Assessment of the proposed Overvaal Trust PV Facility, Buffelspoort, North West Province. Bloemfontein.

**Butler, E. 2017.** Palaeontological Impact Assessment of the proposed development of the H2 Energy Power Station and associated infrastructure on Portions 21; 22 And 23 of the farm Hartebeestspruit in the Thembisile Hani Local Municipality, Nkangala District near Kwamhlanga, Mpumalanga Province. Bloemfontein.

**Butler**, **E. 2017.** Palaeontological Impact Assessment of the proposed upgrade of the Sandriver Canal and Klippan Pump station in Welkom, Free State Province. Bloemfontein.

**Butler, E. 2017.** Palaeontological Impact Assessment of the proposed upgrade of the 132kv and 11kv power line into a dual circuit above ground power line feeding into the Urania substation in Welkom, Free State Province. Bloemfontein.

**Butler, E. 2017.** Palaeontological Desktop Assessment of the proposed Swaziland-Mozambique border patrol road and Mozambique barrier structure. Bloemfontein.

**Butler, E. 2017.** Palaeontological Impact Assessment of the proposed diamonds alluvial & diamonds general prospecting right application near Christiana on the remaining extent of portion 1 of the farm Kaffraria 314, registration division HO, North West Province. Bloemfontein.

**Butler, E. 2017.** Palaeontological Desktop Assessment for the proposed development of Wastewater Treatment Works on Hartebeesfontein, near Panbult, Mpumalanga. Bloemfontein.

**Butler, E. 2017.** Palaeontological Desktop Assessment for the proposed development of Wastewater Treatment Works on Rustplaas near Piet Retief, Mpumalanga. Bloemfontein.

**Butler, E. 2018.** Palaeontological Impact Assessment for the Proposed Landfill Site in Luckhoff, Letsemeng Local Municipality, Xhariep District, Free State. Bloemfontein.

**Butler, E. 2018.** Palaeontological Impact Assessment of the proposed development of the new Mutsho coal-fired power plant and associated infrastructure near Makhado, Limpopo Province. Bloemfontein.

**Butler, E. 2018.** Palaeontological Impact Assessment of the authorisation and amendment processes for Manangu mine near Delmas, Victor Khanye local municipality, Mpumalanga. Bloemfontein.

**Butler, E. 2018.** Palaeontological Desktop Assessment for the proposed Mashishing township establishment in Mashishing (Lydenburg), Mpumalanga Province. Bloemfontein.

**Butler, E. 2018.** Palaeontological Desktop Assessment for the Proposed Mlonzi Estate Development near Lusikisiki, Ngquza Hill Local Municipality, Eastern Cape. Bloemfontein.

**Butler, E. 2018.** Palaeontological Phase 1 Assessment of the proposed Swaziland-Mozambique border patrol road and Mozambique barrier structure. Bloemfontein.

**Butler, E. 2018.** Palaeontological Desktop Assessment for the proposed electricity expansion project and Sekgame Switching Station at the Sishen Mine, Northern Cape Province. Bloemfontein.

**Butler, E. 2018.** Palaeontological field assessment of the proposed construction of the Zonnebloem Switching Station (132/22kV) and two loop-in loop-out power lines (132kV) in the Mpumalanga Province. Bloemfontein.

**Butler, E. 2018.** Palaeontological Field Assessment for the proposed re-alignment and decommisioning of the Firham-Platrand 88kv Powerline, near Standerton, Lekwa Local Municipality, Mpumalanga province. Bloemfontein.

**Butler, E. 2018.** Palaeontological Desktop Assessment of the proposed Villa Rosa development In the Buffalo City Metropolitan Municipality, East London. Bloemfontein.

**Butler, E. 2018.** Palaeontological field Assessment of the proposed Villa Rosa development In the Buffalo City Metropolitan Municipality, East London. Bloemfontein.

**Butler, E. 2018.** Palaeontological desktop assessment of the proposed Mookodi – Mahikeng 400kV line, North West Province. Bloemfontein.

**Butler, E. 2018.** Palaeontological Desktop Assessment for the proposed Thornhill Housing Project, Ndlambe Municipality, Port Alfred, Eastern Cape Province. Bloemfontein.

**Butler, E. 2018.** Palaeontological desktop assessment of the proposed housing development on portion 237 of farm Hartebeestpoort 328. Bloemfontein.

**Butler, E. 2018.** Palaeontological desktop assessment of the proposed New Age Chicken layer facility located on holding 75 Endicott near Springs in Gauteng. Bloemfontein.

**Butler, E. 2018** Palaeontological Desktop Assessment for the development of the proposed Leslie 1 Mining Project near Leandra, Mpumalanga Province. Bloemfontein.

**Butler, E. 2018.** Palaeontological field assessment of the proposed development of the Wildealskloof mixed use development near Bloemfontein, Free State Province. Bloemfontein.

**Butler, E. 2018.** Palaeontological Field Assessment of the proposed Megamor Extension, East London. Bloemfontein

**Butler, E. 2018.** Palaeontological Impact Assessment of the proposed diamonds Alluvial & Diamonds General Prospecting Right Application near Christiana on the Remaining Extent of Portion 1 of the Farm Kaffraria 314, Registration Division HO, North West Province. Bloemfontein.

**Butler, E. 2018**. Palaeontological Impact Assessment of the proposed construction of a new 11kV (1.3km) Power Line to supply electricity to a cell tower on farm 215 near Delportshoop in the Northern Cape. Bloemfontein.

**Butler, E. 2018.** Palaeontological Field Assessment of the proposed construction of a new 22 kV single wood pole structure power line to the proposed MTN tower, near Britstown, Northern Cape Province. Bloemfontein.

**Butler, E. 2018.** Palaeontological Exemption Letter for the proposed reclamation and reprocessing of the City Deep Dumps in Johannesburg, Gauteng Province. Bloemfontein.

**Butler, E.** 2018. Palaeontological Exemption letter for the proposed reclamation and reprocessing of the City Deep Dumps and Rooikraal Tailings Facility in Johannesburg, Gauteng Province. Bloemfontein.

**Butler, E.** 2018. Proposed Kalabasfontein Mine Extension project, near Bethal, Govan Mbeki District Municipality, Mpumalanga. Bloemfontein.

**Butler, E.** 2018. Palaeontological Desktop Assessment for the development of the proposed Leslie 1 Mining Project near Leandra, Mpumalanga Province. Bloemfontein.

**Butler, E.** 2018. Palaeontological Desktop Assessment of the proposed Mookodi – Mahikeng 400kV Line, North West Province. Bloemfontein.

**Butler, E.** 2018. Environmental Impact Assessment (EIA) for the Proposed 325mw Rondekop Wind Energy Facility between Matjiesfontein And Sutherland In The Northern Cape Province.

**Butler, E.** 2018. Palaeontological Impact Assessment of the proposed construction of the Tooverberg Wind Energy Facility, and associated grid connection near Touws River in the Western Cape Province. Bloemfontein.

**Butler, E.** 2018. Palaeontological impact assessment of the proposed Kalabasfontein Mining Right Application, near Bethal, Mpumalanga.

**E. Butler.** 2019. Palaeontological Desktop Assessment of the proposed Westrand Strengthening Project Phase II.

**E. Butler**. 2019. Palaeontological Field Assessment for the proposed Sirius 3 Photovoltaic Solar Energy Facility near Upington, Northern Cape Province

**E. Butler.** 2019. Palaeontological Field Assessment for the proposed Sirius 4 Photovoltaic Solar Energy Facility near Upington, Northern Cape Province

**E. Butler**. 2019. Palaeontological Field Assessement for Heuningspruit PV 1 Solar Energy Facility near Koppies, Ngwathe Local Municipality, Free State Province.

**E. Butler**. 2019. Palaeontological Field Assessment for the Moeding Solar Grid Connection, North West Province.

**E. Butler.** 2019. Recommended Exemption from further Palaeontological studies for the Proposed Agricultural Development on Farms 1763, 2372 And 2363, Kakamas South Settlement, Kai! Garib Municipality, Mgcawu District Municipality, Northern Cape Province.

**E. Butler. 2019.** Recommended Exemption from further Palaeontological studies: of Proposed Agricultural Development, Plot 1178, Kakamas South Settlement, Kai! Garib Municipality

**E. Butler. 2019.** Palaeontological Desktop Assessment for the Proposed Waste Rock Dump Project at Tshipi Borwa Mine, near Hotazel, Northern Cape Province:

**E. Butler. 2019**. Palaeontological Exemption Letter for the proposed DMS Upgrade Project at the Sishen Mine, Gamagara Local Municipality, Northern Cape Province

**E. Butler. 2019.** Palaeontological Desktop Assessment of the proposed Integrated Environmental Authorisation process for the proposed Der Brochen Amendment project, near Groblershoop, Limpopo

- E. **Butler. 2019.** Palaeontological Desktop Assessment of the proposed updated Environmental Management Programme (EMPr) for the Assmang (Pty) Ltd Black Rock Mining Operations, Hotazel, Northern Cape
- **E. Butler. 2019**. Palaeontological Desktop Assessment of the proposed Kriel Power Station Lime Plant Upgrade, Mpumalanga Province
- **E. Butler. 2019**. Palaeontological Impact Assessment for the proposed Kangala Extension Project Near Delmas, Mpumalanga Province.
- **E. Butler. 2019**. Palaeontological Desktop Assessment for the proposed construction of an iron/steel smelter at the Botshabelo Industrial area within the Mangaung Metropolitan Municipality, Free State Province.
- **E. Butler. 2019**. Recommended Exemption from further Palaeontological studies for the proposed agricultural development on farms 1763, 2372 and 2363, Kakamas South settlement, Kai! Garib Municipality, Mgcawu District Municipality, Northern Cape Province.
- **E. Butler. 2019.** Recommended Exemption from further Palaeontological Studies for Proposed formalisation of Gamakor and Noodkamp low cost Housing Development, Keimoes, Gordonia Rd, Kai !Garib Local Municipality, ZF Mgcawu District Municipality, Northern Cape Province.
- **E. Butler. 2019**. Recommended Exemption from further Palaeontological Studies for proposed formalisation of Blaauwskop Low Cost Housing Development, Kenhardt Road, Kai !Garib Local Municipality, ZF Mgcawu District Municipality, Northern Cape Province.
- **E. Butler. 2019**. Palaeontological Desktop Assessment of the proposed mining permit application for the removal of diamonds alluvial and diamonds kimberlite near Windsorton on a certain portion of Farm Zoelen's Laagte 158, Registration Division: Barkly Wes, Northern Cape Province.
- **E. Butler. 2019**. Palaeontological Desktop Assessment of the proposed Vedanta Housing Development, Pella Mission 39, Khâi-Ma Local Municipality, Namakwa District Municipality, Northern Cape.
- **E. Butler. 2019**. Palaeontological Desktop Assessment for The Proposed 920 Kwp Groenheuwel Solar Plant Near Augrabies, Northern Cape Province
- **E. Butler. 2019.** Palaeontological Desktop Assessment for the establishment of a Super Fines Storage Facility at Amandelbult Mine, Near Thabazimbi, Limpopo Province
- **E. Butler. 2019.** Palaeontological Impact Assessment for the proposed Sace Lifex Project, Near Emalahleni, Mpumalanga Province
- **E. Butler. 2019.** Palaeontological Desktop Assessment for the proposed Rehau Fort Jackson Warehouse Extension, East London
- **E. Butler. 2019.** Palaeontological Desktop Assessment for the proposed Environmental Authorisation Amendment for moving 3 Km Of the Merensky-Kameni 132KV Powerline
- **E. Butler. 2019.** Palaeontological Impact Assessment for the proposed Umsobomvu Solar PV Energy Facilities, Northern and Eastern Cape
- **E. Butler. 2019.** Palaeontological Desktop Assessment for six proposed Black Mountain Mining Prospecting Right Applications, without Bulk Sampling, in the Northern Cape.

- **E. Butler. 2019.** Palaeontological field Assessment of the Filling Station (Rietvlei Extension 6) on the Remaining Portion of Portion 1 of the Farm Witkoppies 393JR east of the Rietvleidam Nature Reserve, City of Tshwane, Gauteng
  - **E. Butler. 2019.** Palaeontological Desktop Assessment Of The Proposed Upgrade Of The Vaal Gamagara Regional Water Supply Scheme: Phase 2 And Groundwater Abstraction
- **E. Butler. 2019.** Palaeontological Desktop Assessment Of The Expansion Of The Jan Kempdorp Cemetry On Portion 43 Of Farm Guldenskat 36-Hn, Northern Cape Province
- **E. Butler. 2019.** Palaeontological Desktop Assessment of the Proposed Residential Development On Portion 42 Of Farm Geldunskat No 36 In Jan Kempdorp, Phokwane Local Municipality, Northern Cape Province
- **E. Butler.** 2019. Palaeontological Impact Assessment of the proposed new Township Development, Lethabo Park, on Remainder of Farm Roodepan No 70, Erf 17725 And Erf 15089, Roodepan Kimberley, Sol Plaatjies Local Municipality, Frances Baard District Municipality, Northern Cape
- **E. Butler.** 2019. Palaeontological Protocol for Finds for the proposed 16m WH Battery Storage System in Steinkopf, Northern Cape Province
- **E. Butler.** 2019. Palaeontological Exemption Letter of the proposed 4.5WH Battery Storage System near Midway-Pofadder, Northern Cape Province
- **E. Butler.** 2019. Palaeontological Exemption Letter of the proposed 2.5ml Process Water Reservoir at Gloria Mine, Black Rock, Hotazel, Northern Cape
- **E. Butler.** 2019. Palaeontological Desktop Assessment for the Establishment of a Super Fines Storage Facility at Gloria Mine, Black Rock Mine Operations, Hotazel, Northern Cape:
- **E. Butler.** 2019. Palaeontological Desktop Assessment for the Proposed New Railway Bridge, and Rail Line Between Hotazel And The Gloria Mine, Northern Cape Province
- **E. Butler.** 2019. Palaeontological Exemption Letter Of The Proposed Mixed Use Commercial Development On Portion 17 Of Farm Boegoeberg Settlement Number 48, !Kheis Local Municipality In The Northern Cape Province
- **E. Butler.** 2019. Palaeontological Desktop Assessment of the Proposed Diamond Mining Permit Application Near Kimberley, Sol Plaatjies Municipality, Northern Cape Province
- **E. Butler.** 2019. Palaeontological Desktop Assessment of the Proposed Diamonds (Alluvial, General & In Kimberlite) Prospecting Right Application near Postmasburg, Registration Division; Hay, Northern Cape Province
- **E. Butler.** 2019. Palaeontological Desktop Assessment of the proposed diamonds (alluvial, general & in kimberlite) prospecting right application near Kimberley, Northern Cape Province.
  - **E. Butler.** 2019. Palaeontological Phase 1 Impact Assessment of the proposed upgrade of the Vaal Gamagara regional water supply scheme: Phase 2 and groundwater abstraction
- **E. Butler.** 2019. Palaeontological Desktop Assessment of the proposed seepage interception drains at Duvha Power Station, Emalahleni Municipality, Mpumalanga Province
- **E. Butler.** 2019. Palaeontological Desktop Assessment letter for the Proposed PV Solar Facility at the Heineken Sedibeng Brewery, near Vereeniging, Gauteng.

- **E. Butler.** 2019. Palaeontological Phase 1 Assessment letter for the Proposed PV Solar Facility at the Heineken Sedibeng Brewery, near Vereeniging, Gauteng.
- **E. Butler.** 2019. Palaeontological field Assessment for the Proposed Upgrade of the Kolomela Mining Operations, Tsantsabane Local Municipality, Siyanda District Municipality, Northern Cape Province, Northern Cape
- **E. Butler.** 2019. Palaeontological Desktop Assessment of the proposed feldspar prospecting rights and mining application on portion 4 and 5 of the farm Rozynen 104, Kakamas South, Kai! Garib Municipality, Zf Mgcawu District Municipality, Northern Cape
- **E. Butler.** 2019. Palaeontological Phase 1 Field Assessment of the proposed Summerpride Residential Development and Associated Infrastructure on Erf 107, Buffalo City Municipality, East London.
- **E. Butler.** 2019. Palaeontological Desktop Impact Assessment for the proposed re-commission of the Old Balgray Colliery near Dundee, Kwazulu Natal.
- **E. Butler.** 2019. Palaeontological Phase 1 Impact Assessment for the Proposed Re-Commission of the Old Balgray Colliery near Dundee, Kwazulu Nata.I
- **E. Butler.** 2019. Palaeontological Desktop Assessment for the Proposed Environmental Authorisation and Amendment Processes for Elandsfontein Colliery.
- **E. Butler.** 2019. Palaeontological Impact Assessment and Protocol for Finds of a Proposed New Quarry on Portion 9 (of 6) of the farm Mimosa Glen 885, Bloemfontein, Free State Province
- **E. Butler.** 2019. Palaeontological Impact Assessment and Protocol for Finds of a proposed development on Portion 9 and 10 of the Farm Mimosa Glen 885, Bloemfontein, Free State Province **E. Butler.** 2019. Palaeontological Exemption Letter for the proposed residential development on the Remainder of Portion 1 of the Farm Strathearn 2154 in the Magisterial District of Bloemfontein, Free State
- **E. Butler.** 2019. Palaeontological Field Assessment for the Proposed Nigel Gas Transmission Pipeline Project in the Nigel Area of the Ekurhuleni Metropolitan Municipality, Gauteng Province
- **E. Butler.** 2019. Palaeontological Desktop Assessment for five Proposed Black Mountain Mining Prospecting Right Applications, Without Bulk Sampling, in the Northern Cape.
- **E. Butler.** 2019. Palaeontological Desktop Assessment for the Proposed Environmental Authorisation and an Integrated Water Use Licence Application for the Reclamation of the Marievale Tailings Storage Facilities, Ekurhuleni Metropolitan Municipality Gauteng Province.
- **E. Butler.** 2019. Palaeontological Impact Assessment for the Proposed Sace Lifex Project, near Emalahleni, Mpumalanga Province.
- **E. Butler.** 2019. Palaeontological Desktop Assessment for the proposed Golfview Colliery near Ermelo, Msukaligwa Local Municipality, Mpumalanga Province
- **E. Butler.** 2019. Palaeontological Desktop Assessment for the Proposed Kangra Maquasa Block C Mining development near Piet Retief, in the Mkhondo Local Municipality within the Gert Sibande District Municipality

**E. Butler.** 2019. Palaeontological Desktop Assessment for the Proposed Amendment of the Kusipongo Underground and Opencast Coal Mine in Support of an Environmental Authorization and Waste Management License Application.

**E. Butler.** 2019. Palaeontological Exemption Letter of the Proposed Mamatwan Mine Section 24g Rectification Application, near Hotazel, Northern Cape Province

Palaeontological Field Assessment for the Proposed Environmental Authorisation and Amendment Processes for Elandsfontein Colliery

Palaeontological Desktop Assessment for the Proposed Extension of the South African Nuclear Energy Corporation (Necsa) Pipe Storage Facility, Madibeng Local Municipality, North West Province

Palaeontological Field Assessment for the Proposed Piggery on Portion 46 of the Farm Brakkefontien 416, Within the Nelson Mandela Bay Municipality, Eastern Cape

Palaeontological field Assessment for the proposed Rietfontein Housing Project as part of the Rapid Land Release Programme, Gauteng Province Department of Human Settlements, City of Johannesburg Metropolitan Municipality

Palaeontological Desktop Assessment for the Proposed Choje Wind Farm between Grahamstown and Somerset East, Eastern Cape

Palaeontological Desktop Assessment of the Proposed Prospecting Right Application for the Prospecting of Diamonds (Alluvial, General & In Kimberlite), Combined with A Waste License Application, Registration Division: Gordonia And Kenhardt, Northern Cape Province

Palaeontological Impact Assessment for the Proposed Clayville Truck Yard, Ablution Blocks and Wash Bay to be Situated on Portion 55 And 56 Of Erf 1015, Clayville X11, Ekurhuleni Metropolitan Municipality, Gauteng Province

Palaeontological Desktop Assessment for the Proposed Hartebeesthoek Residential Development Palaeontological Desktop Assessment for the Proposed Mooiplaats Educational Facility, Gauteng Province

Palaeontological Impact Assessment for the Proposed Monument Park Student Housing Establishment

Palaeontological Field Assessment for the Proposed Standerton X10 Residential and Mixed-Use Developments, Lekwa Local Municipality Standerton, Mpumalanga Province

Palaeontological Field Assessment for the Rezoning and Subdivision of Portion 6 Of Farm 743, East London

Palaeontological Field Assessment for the Proposed Matla Power Station Reverse Osmosis Plant, Mpumalanga Province **CONFERENCE CONTRIBUTIONS** 

**NATIONAL** 

**PRESENTATION** 

Butler, E., Botha-Brink, J., and F. Abdala. A new gorgonopsian from the uppermost Dicynodon

Assemblage Zone, Karoo Basin of South Africa.18 the Biennial conference of the PSSA

2014. Wits, Johannesburg, South Africa.

**INTERNATIONAL** 

Attended the Society of Vertebrate Palaeontology 73th Conference in Los Angeles, America.

October 2012.

**CONFERENCES: POSTER PRESENTATION** 

**NATIONAL** 

Butler, E., and J. Botha-Brink. Cranial skeleton of Galesaurus planiceps, implications for biology and

lifestyle. University of the Free State Seminar Day, Bloemfontein. South Africa. November

2007.

Butler, E., and J. Botha-Brink. Postcranial skeleton of Galesaurus planiceps, implications for biology

and lifestyle.14th Conference of the PSSA, Matjesfontein, South Africa. September 2008:

Butler, E., and J. Botha-Brink. The biology of the South African non-mammaliaform cynodont

Galesaurus planiceps.15th Conference of the PSSA, Howick, South Africa. August 2008.

INTERNATIONAL VISITS

Natural History Museum, London

July 2008

Paleontological Institute, Russian Academy of Science, Moscow

November 2014

15

# **Dr. David Barry Hoare**

B.Sc. (Hons), M.Sc., Ph.D., Pr.Nat.Sci. (Ecology, Botany)

#### **Contact details**

Postnet Suite #116

Private Bag X025, Lynnwood Ridge, 0040

Tel.: (012) 804 2281 Fax: 086 550 2053 Cell: 083 284 5111

E-mail: <a href="mailto:dhoare@lantic.net">dhoare@lantic.net</a>

#### **Personal information**

Date of birth: 04 November 1966, Grahamstown, South Africa

Citizenship: Republic of South Africa

**ID no.:** 661104 5024 088

#### **Education**

Matric - Graeme College, Grahamstown, 1984

B.Sc (majors: Botany, Zoology) - Rhodes University, 1991-1993 B.Sc (Hons) (Botany) - Rhodes University, 1994 with distinction M.Sc (Botany) - University of Pretoria, 1995-1997 with distinction PhD (Botany) - Nelson Mandela Metropolitan University, Port Elizabeth

#### Main areas of specialisation

- Vegetation ecology, primarily in grasslands, thicket, coastal systems, wetlands.
- Plant biodiversity and threatened plant species specialist.
- Alien plant identification and control / management plans.
- Remote sensing, analysis and mapping of vegetation.
- Specialist consultant for environmental management projects.

#### Membership

Professional Natural Scientist, South African Council for Natural Scientific Professions, 16 August 2005 – present. Reg. no. 400221/05 (Ecology, Botany)

Member, International Association of Vegetation Scientists (IAVS)

Member, Ecological Society of America (ESA)

Member, International Association for Impact Assessment (IAIA)

Member, Herpetological Association of Africa (HAA)

#### **Employment history**

1 December 2004 – present, <u>Director</u>, David Hoare Consulting (Pty) Ltd. <u>Consultant</u>, specialist consultant contracted to various companies and organisations.

1January 2009 – 30 June 2009, <u>Lecturer</u>, University of Pretoria, Botany Dept.

1 January 2013 – 30 June 2013, <u>Lecturer</u>, University of Pretoria, Botany Dept.

1 February 1998 – 30 November 2004, <u>Researcher</u>, Agricultural Research Council, Range and Forage Institute, Private Bag X05, Lynn East, 0039. Duties: project management, general vegetation ecology, remote sensing image processing.

#### **Experience as consultant**

Ecological consultant since 1995. Author of over 380 specialist ecological consulting reports. Wide experience in ecological studies within grassland, savanna and fynbos, as well as riparian, coastal and wetland vegetation.

#### **Publication record:**

Refereed scientific articles (in chronological order):

Journal articles:

- **HOARE, D.B.** & BREDENKAMP, G.J. 1999. Grassland communities of the Amatola / Winterberg mountain region of the Eastern Cape, South Africa. *South African Journal of Botany* 64: 44-61.
- **HOARE, D.B.**, VICTOR, J.E., LUBKE, R.A. & MUCINA, L., 2000. Vegetation of the coastal fynbos and rocky headlands south of George, South Africa. *Bothalia* 30: 87-96.
- VICTOR, J.E., **HOARE, D.B.** & LUBKE, R.A., 2000. Checklist of plant species of the coastal fynbos and rocky headlands south of George, South Africa. *Bothalia* 30: 97-101.
- MUCINA, L, BREDENKAMP, G.J., **HOARE, D.B** & MCDONALD, D.J. 2000. A National Vegetation Database for South Africa South African Journal of Science 96: 1-2.
- **HOARE, D.B.** & BREDENKAMP, G.J. 2001. Syntaxonomy and environmental gradients of the grasslands of the Stormberg / Drakensberg mountain region of the Eastern Cape, South Africa.. *South African Journal of Botany* 67: 595 608.
- LUBKE, R.A., **HOARE, D.B.**, VICTOR, J.E. & KETELAAR, R. 2003. The vegetation of the habitat of the Brenton blue butterfly, Orachrysops niobe (Trimen), in the Western Cape, South Africa. *South African Journal of Science* 99: 201–206.
- **HOARE, D.B** & FROST, P. 2004. Phenological classification of natural vegetation in southern Africa using AVHRR vegetation index data. *Applied Vegetation Science* 7: 19-28.
- FOX, S.C., HOFFMANN, M.T. and HOARE, D. 2005. The phenological pattern of vegetation in Namaqualand, South Africa and its climatic correlates using NOAA-AVHRR NDVI data. South African Geographic Journal, 87: 85–94.
- PFAB, M.F., COMPAAN, P.C., WHITTINGTON-JONES, C.A., ENGELBRECHT, I., DUMALISILE, L., MILLS, L., WEST, S.D., MULLER, P., MASTERSON, G.P.R., NEVHUTALU, L.S., HOLNESS, S.D., **HOARE, D.B.** 2017. The Gauteng Conservation Plan: Planning for biodiversity in a rapidly urbanising province. Bothalia, Vol. 47:1. a2182. https://doi.org/10.4102/abc.v47i1.2182.

# **Book chapters and conference proceedings:**

- **HOARE, D.B.** 2002. Biodiversity and performance of grassland ecosystems in communal and commercial farming systems in South Africa. Proceedings of the FAO's Biodiversity and Ecosystem Approach in Agriculture, Forestry and Fisheries Event: 12–13 October, 2002. Food and Agriculture Organisation of the United Nations, Viale delle Terme di Caracalla, Rome, Italy. pp. 10 27.
- STEENKAMP, Y., VAN WYK, A.E., VICTOR, J.E., **HOARE, D.B.**, DOLD, A.P., SMITH, G.F. & COWLING, R.M. 2005. Maputaland-Pondoland-Albany Hotspot. In: Mittermeier, R.A., Gil, P.R., Hoffmann, M., Pilgrim, J., Brooks, T., Mittermeier, C.G., Lamoreux, J. & Fonseca, G.A.B. da (eds.) *Hotspots revisited*. CEMEX, pp.218–229. ISBN 968-6397-77-9
- STEENKAMP, Y., VAN WYK, A.E., VICTOR, J.E., **HOARE, D.B.**, DOLD, A.P., SMITH, G.F. & COWLING, R.M. 2005. Maputaland-Pondoland-Albany Hotspot. <a href="http://www.biodiversityhotspots.org/xp/hotspots/maputaland/">http://www.biodiversityhotspots.org/xp/hotspots/maputaland/</a>.
- **HOARE, D.B.**, MUCINA, L., RUTHERFORD, M.C., VLOK, J., EUSTON-BROWN, D., PALMER, A.R., POWRIE, L.W., LECHMERE-OERTEL, R.G., PROCHES, S.M., DOLD, T. and WARD, R.A. *Albany Thickets.* in Mucina, L. and Rutherford, M.C. (eds.) 2006. The vegetation of South Africa, Lesotho and Swaziland. *Strelitzia* 19, South African National Biodiversity Institute, Pretoria.
- MUCINA, L., **HOARE, D.B.**, LÖTTER, M.C., DU PREEZ, P.J., RUTHERFORD, M.C., SCOTT-SHAW, C.R., BREDENKAMP, G.J., POWRIE, L.W., SCOTT, L., CAMP, K.G.T., CILLIERS, S.S., BEZUIDENHOUT, H., MOSTERT, T.H., SIEBERT, S.J., WINTER, P.J.D., BURROWS, J.E., DOBSON, L., WARD, R.A., STALMANS, M., OLIVER, E.G.H., SIEBERT, F., SCHMIDT, E., KOBISI, K., KOSE, L. 2006. *Grassland Biome.* In: Mucina, L. & Rutherford, M.C. (eds.) The vegetation of South Africa, Lesotho and Swaziland. *Strelitzia* 19. South African National Biodiversity Institute, Pretoria.
- RUTHERFORD, M.C., MUCINA, L., LÖTTER, M.C., BREDENKAMP, G.J., SMIT, J.H.L., SCOTT-SHAW, C.R., HOARE, D.B., GOODMAN, P.S., BEZUIDENHOUT, H., SCOTT, L. & ELLIS, F., POWRIE, L.W., SIEBERT, F., MOSTERT, T.H., HENNING, B.J., VENTER, C.E., CAMP, K.G.T., SIEBERT, S.J., MATTHEWS, W.S., BURROWS, J.E., DOBSON, L., VAN ROOYEN, N., SCHMIDT, E., WINTER, P.J.D., DU PREEZ, P.J., WARD, R.A., WILLIAMSON, S. and HURTER, P.J.H. 2006. Savanna Biome. In: Mucina, L. & Rutherford, M.C. (eds.) The vegetation of South Africa, Lesotho and Swaziland. Strelitzia 19. South African National Biodiversity Institute, Pretoria.
- MUCINA, L., RUTHERFORD, M.C., PALMER, A.R., MILTON, S.J., SCOTT, L., VAN DER MERWE, B., **HOARE, D.B.**, BEZUIDENHOUT, H., VLOK, J.H.J., EUSTON-BROWN, D.I.W., POWRIE, L.W. & DOLD, A.P.

2006. *Nama-Karoo Biome*. In: Mucina, L. & Rutherford, M.C. (eds.) The vegetation of South Africa, Lesotho and Swaziland. *Strelitzia* 19. South African National Biodiversity Institute, Pretoria.

MUCINA, L., SCOTT-SHAW, C.R., RUTHERFORD, M.C., CAMP, K.G.T., MATTHEWS, W.S., POWRIE, L.W. and **HOARE, D.B.** 2006. *Indian Ocean Coastal Belt.* In: Mucina, L. & Rutherford, M.C. (eds.) The vegetation of South Africa, Lesotho and Swaziland. *Strelitzia* 19. South African National Biodiversity Institute, Pretoria.

#### Conference Presentations:

- HOARE, D.B. & LUBKE, R.A. *Management effects on diversity at Goukamma Nature Reserve, Southern Cape*; Paper presentation, Fynbos Forum, Bienne Donne, July 1994
- HOARE, D.B., VICTOR, J.E. & LUBKE, R.A. *Description of the coastal fynbos south of George, southern Cape*; Paper presentation, Fynbos Forum, Bienne Donne, July 1994
- HOARE, D.B. & LUBKE, R.A. *Management effects on fynbos diversity at Goukamma Nature Reserve, Southern Cape*; Paper presentation, South African Association of Botanists Annual Congress, Bloemfontein, January 1995
- HOARE, D.B. & BOTHA, C.E.J. *Anatomy and ecophysiology of the dunegrass Ehrharta villosa var. maxima*; Poster presentation, South African Association of Botanists Annual Congress, Bloemfontein, January 1995
- HOARE, D.B., PALMER, A.R. & BREDENKAMP, G.J. 1996. *Modelling grassland community distributions in the Eastern Cape using annual rainfall and elevation*; Poster presentation, South African Association of Botanists Annual Congress, Stellenbosch, January 1996
- HOARE, D.B. Modelling vegetation on a past climate as a test for palaeonological hypotheses on vegetation distributions; Paper presentation, Randse Afriakaanse Universiteit postgraduate symposium, 1997
- HOARE, D.B., VICTOR, J.E. & BREDENKAMP, G.J. *Historical and ecological links between grassy fynbos and afromontane fynbos in the Eastern Cape*; Paper presentation, South African Association of Botanists Annual Congress, Cape Town, January 1998
- LUBKE, R.A., HOARE, D.B., VICTOR, J.E. & KETELAAR, R. *The habitat of the Brenton Blue Butterfly*. Paper presentation, South African Association of Botanists Annual Congress, Cape Town, January 1998
- HOARE, D.B. & PANAGOS, M.D. Satellite stratification of vegetation structure or floristic composition? Poster presentation at the 34<sup>th</sup> Annual Congress of the Grassland Society of South Africa, Warmbaths, 1-4 February 1999.
- HOARE, D.B. & WESSELS, K. Conservation status and threats to grasslands of the northern regions of South Africa, Poster presentation at the South African Association of Botanists Annual Congress, Potchefstroom, January 2000.
- HOARE, D.B. Phenological dynamics of Eastern Cape vegetation. Oral paper presentation at the South African Association of Botanists Annual Congress, Grahamstown, January 2002.
- HOARE, D.B., MUCINA, L., VAN DER MERWE, J.P.H. & PALMER, A.R. Classification and digital mapping of grasslands of the Eastern Cape Poster presentation at the South African Association of Botanists Annual Congress, Grahamstown, January 2002.
- HOARE, D.B. Deriving phenological variables for Eastern Cape vegetation using satellite data Poster presentation at the South African Association of Botanists Annual Congress, Grahamstown, January 2002.
- MUCINA, L., RUTHERFORD, M.C., HOARE, D.B. & POWRIE, L.W. 2003. VegMap: The new vegetation map of South Africa, Lesotho and Swaziland. In: Pedrotti, F. (ed.) Abstracts: Water Resources and Vegetation, 46<sup>th</sup> Symposium of the International Association for Vegetation Science, June 8 to 14 Napoli, Italy.
- HOARE, D.B. 2003. Species diversity patterns in moist temperate grasslands of South Africa. Proceedings of the VIIth International Rangeland Congress, 26 July 1 August 2003, Durban South Africa. African Journal of Range and Forage Science. 20: 84.

#### Unpublished technical reports:

- PALMER, A.R., HOARE, D.B. & HINTSA, M.D., 1999. Using satellite imagery to map veld condition in Mpumalanga: A preliminary report. Report to the National Department of Agriculture (Directorate Resource Conservation). ARC Range and Forage Institute, Grahamstown.
- HOARE, D.B. 1999. The classification and mapping of the savanna biome of South Africa: methodology for mapping the vegetation communities of the South African savanna at a scale of 1:250 000. Report to the National Department of Agriculture (Directorate Resource Conservation). ARC Range and Forage Institute, Pretoria.

- HOARE, D.B. 1999. The classification and mapping of the savanna biome of South Africa: size and coverage of field data that exists on the database of vegetation data for South African savanna. Report to the National Department of Agriculture (Directorate Resource Conservation). ARC Range and Forage Institute, Pretoria.
- THOMPSON, M.W., VAN DEN BERG, H.M., NEWBY, T.S. & HOARE, D.B. 2001. Guideline procedures for national land-cover mapping and change monitoring. Report no. ENV/P/C 2001-006 produced for Department of Water Affairs and Forestry, National Department of Agriculture and Department of Environment Affairs and Tourism. Copyright: Council for Scientific and Industrial Research (CSIR) and Agricultural Research Council (ARC).
- HOARE, D.B. 2003. Natural resource survey of node O R Tambo, using remote sensing techniques, Unpublished report and database of field data for ARC Institute for Soil, Climate & Water, ARC Range and Forage Institute, Grahamstown.
- HOARE, D.B. 2003. Short-term changes in vegetation of Suikerbosrand Nature Reserve, South Africa, on the basis of resampled vegetation sites. Gauteng Department of Agriculture, Conservation, Environment and Land Affairs, Conservation Division.
- BRITTON, D., SILBERBAUER, L., ROBERTSON, H., LUBKE, R., HOARE, D., VICTOR, J., EDGE, D. & BALL, J. 1997. The Life-history, ecology and conservation of the Brenton Blue Butterfly (*Orachrysops niobe*) (Trimen)(*Lycaenidea*) at Brenton-on-Sea. Unpublished report for the Endangered Wildlife Trust of Southern Africa, Johannesburg. 38pp.
- HOARE, D.B., VICTOR, J.E. & MARNEWIC, G. 2005. Vegetation and flora of the wetlands of Nylsvley River catchment as component of a project to develop a framework for the sustainable management of wetlands in Limpopo Province.

#### Consulting reports:

Total of over 380 specialist consulting reports for various environmental projects from 1995 – present.

#### **Workshops / symposia attended:**

International Association for Impact Assessment Annual Congress, Durban, 16 – 19 May 2018.

Workshop on remote sensing of rangelands presented by Paul Tueller, University of Nevada Reno, USA, VIIth International Rangeland Congress, 26 July – 1 August 2003, Durban South Africa.

VIIth International Rangeland Congress, 26 July - 1 August 2003, Durban South Africa.

BioMap workshop, Stellenbosch, March 2002 to develop strategies for studying vegetation dynamics of Namaqualand using remote sensing techniques

South African Association of Botanists Annual Congress, Grahamstown, January 2002.

28th International Symposium on Remote Sensing of Environment, Somerset West, 27-31 March 2000.

Workshop on Vegetation Structural Characterisation: Tree Cover, Height and Biomass, 28<sup>th</sup> International Symposium on Remote Sensing of Environment, Strand, 26 March 2000.

South African Association of Botanists Annual Congress, Potchefstroom, January 2000

National Botanical Institute Vegmap Workshop, Kirstenbosch, Cape Town, 30 September-1 October 1999. Sustainable Land Management – Guidelines for Impact Monitoring, Orientation Workshop: Sharing Impact Monitoring Experience, Zithabiseni, 27-29 September 1999.

WWF Macro Economic Reforms and Sustainable Development in Southern Africa, Environmental Economic Training Workshop, development Bank, Midrand, 13-14 September 1999.

34th Annual Congress of the Grassland Society of South Africa, Warmbaths, 1-4 February 1999

Expert Workshop on National Indicators of Environmental Sustainable Development, Dept. of

Environmental Affairs and Tourism, Roodevallei Country Lodge, Roodeplaat Dam, Pretoria, 20-21 October 1998.

South African Association of Botanists Annual Congress, Cape Town, January 1998

Randse Afriakaanse Universiteit postgraduate symposium, 1997.

South African Association of Botanists Annual Congress, Bloemfontein, January 1995.

#### Referees:

Prof. Roy Lubke, Associate Professor Emeritus, Botany Department, Rhodes University, Grahamstown Tel: 0461-318 592. E-mail: r.lubke@ru.ac.za

Prof. Richard Cowling, Botany Department, Nelson Mandela Metropolitan University, Tel (042) 298 0259 E-mail: rmc@kingsley.co.za

Michele Pfab, Scientific Co-ordinator: Scientific Authority, Applied Biodiversity Research, South African National Biodiversity Institute, (012) 843 5025, E-mail: M.Pfab@sanbi.org.za



Name Stephan Hendrik Jacobs

**Profession** Environmentalist

Name of Firm SiVEST SA (Pty) Ltd

Present Appointment Environmental Consultant

Years with Firm 5 years

**Date of Birth** 28 May 1991, Pretoria, South Africa

**ID Number** 910528 5065 080

Nationality South African

**Education** 

• Pretoria Boys High, Pretoria, South Africa, Matriculated 2009.

# **Professional Qualification**

• B.Sc. Hons Environmental Management and Analysis, (Post Graduate) University of Pretoria Honours (2014).

• B.Sc. Environmental Sciences (Undergraduate) University Of Pretoria (2012-2013)

# **Employment Record**

Jan 2019 – Current SiVEST SA (Pty) Ltd - Environmental Consultant

Aug 2018 – Dec 2018 Marang Environmental and Associates (Pty) Ltd – Environmental Consultant

May 2015 - Aug 2018 SiVEST SA (Pty) Ltd - Graduate Environmental Consultant

Nov 2014 - Feb 2015 Sodwana Bay Fishing Charters - Assistant Manager

Oct 2014 – Mar 2015 Ufudu Turtle Tours – Tour Guide

# **Language Proficiency**

LANGUAGE	SPEAK	READ	WRITE
English	Excellent	Excellent	Excellent
Afrikaans	Good	Good	Good

**Years of Working Experience:** 5 Years

# **Countries of Working Experience**

South Africa

# Fields of Specialisation

· Environmental Management

#### Overview

Stephan originally joined SiVEST in May 2015 and held the position of Graduate Environmental Consultant in the Johannesburg office. After leaving SiVEST in August 2018, and being employed for a brief period at another environmental consulting company, Stephan re-joined SiVEST in January 2019 and currently holds the position of Environmental Consultant in the Gauteng region (Pretoria and Johannesburg).



Stephan has been extensively involved in Environmental Impact Assessment (EIA) and Basic Assessment (BA) processes for various types of projects / developments, in particular renewable energy projects / developments which form part of South Africa's Renewable Energy Independent Power Producer Procurement Programme (REIPPPP). As such, Stephan has vast experience with regards to the compilation of Environmental Impact Assessments (EIAs) and Basic Assessments (BAs). Additionally, Stephan has extensive experience in undertaking public participation and stakeholder engagement processes. Stephan has also assisted extensively in the undertaking of field work and the compilation of reports for specialist studies such as Surface Water and Visual Impact Assessments. Stephan also has considerable experience in Environmental Compliance and Auditing and has acted as an Environmental Control Officer (ECO) for several infrastructure projects.

#### Skills:

- Strong computer skills (Work, excel, PowerPoint etc.);
- Strong Proposal and report writing skills:
- Report compilation skills for Environmental Impact Assessments (EIAs) and Basic Assessments (BAs);
- Report compilation skills for Environmental Management Plans/Programmes (EMPr);
- Compilation and conducting Visual Impact Assessments;
- Assisting in Surface Water / Wetland Delineations and Assessments.

#### Key experience:

- Environmental Impact Assessment (EIA) of small, medium and large-scale infrastructure projects,
- Basic Assessment (BA), of small, medium and large-scale infrastructure projects,
- Environmental Management Plans (EMPr), of small, medium and large-scale infrastructure projects,
- Undertaking of Public Participation and Stakeholder Engagement Processes
- Proposal and tender compilation,
- Environmental Compliance and Auditing (ECO);
- Various site inspections, and
- Visual Impact Assessments (Field work and report compilation).

#### **Projects Experience (by Sector)**

Stephan is responsible for the following activities: report writing, proposal writing, assisting in specialist surface water delineation and functional assessments, assisting in visual impact assessments and environmental compliance and auditing procedures. Current and completed projects / activities, along with a description of the role played in each project / activity, are outlined in detail below:

# ENVIRONMENTAL CONTROL OFFICER (ECO) MONITORING / AUDITING PROJECTS: -

- Environmental Control Officer (ECO) for the Polokwane Integrated Rapid Public Transport System (IRPTS), Limpopo Province.
- Environmental Control Officer (ECO) for Phase 1 and Phase 2 of the Newmarket Retail Development, Gauteng Province.
- Environmental Control Officer (ECO) for the proposed NuPay Office Block development at the Newmarket Retail Development, Gauteng Province.
- Environmental Control Officer (ECO) for the proposed Construction of the Decathlon Building at the Newmarket Retail Development, Gauteng Province.
- Environmental Control Officer (ECO) for the External Road Upgrades at the Newmarket Retail Development, Gauteng Province.



• Environmental Control Officer (ECO) for the Netcare Alberton Hospital Development as part of the Greater Newmarket Development, Gauteng Province.

#### BASIC ASSESSMENTS (BAS) FOR INFRASTRUCTURE PROJECTS:

- Basic Assessment (BA) for the construction of a Non-Motorised Transport (NMT) Training and Recreational Park adjacent to the Peter Mokaba Stadium in Polokwane, Limpopo Province.
- Basic Assessment (BA) for the Proposed Expansion of the Tissue Manufacturing Capacity at the Twinsaver Kliprivier Operations Base, Gauteng Province.
- Basic Assessment (BA) for the Proposed Construction of a New SPAR Distribution Centre on Erf 1092 at Redhouse in Port Elizabeth, Eastern Cape Province.

# BASIC ASSESSMENTS (BAs) FOR RENEWABLE ENERGY PROJECTS:

- Basic Assessment (BA) for the Proposed Construction of the Graskoppies Substation, Linking Substation and Associated 132kV Power Line near Loeriesfontein, Northern Cape Province.
- Basic Assessment (BA) for the Proposed Construction of the Hartebeest Leegte Substation, Linking Substation and Associated 132kV Power Line near Loeriesfontein, Northern Cape Province.
- Basic Assessment (BA) for the Proposed Construction of the Ithemba Substation, Linking Substation and Associated 132kV Power Line near Loeriesfontein, Northern Cape Province.
- Basic Assessment (BA) for the Proposed Construction of the !Xha Boom Substation, Linking Substation and Associated 132kV Power Line near Loeriesfontein, Northern Cape Province.
- Basic Assessment (BA) for the Proposed Development of the Tooverberg Wind Energy Facility (WEF) near Touws River, Western Cape Province.
- Basic Assessment (BA) for the Proposed Development of the Tooverberg On-site Eskom Substation and 132kV Power Line for the proposed Tooverberg Wind Energy Facility (WEF) near Touws River, Western Cape Province.

# ENVIRONMENTAL IMPACT ASSESSMENTS (EIAs) FOR RENEWABLE ENERGY PROJECTS: -

- Environmental Impact Assessment (EIA) for the Proposed Construction of the Graskoppies Wind Farm near Loeriefontein, Northern Cape Province.
- Environmental Impact Assessment (EIA) for the Proposed Construction of the Hartebeest Leegte Wind Farm near Loeriefontein, Northern Cape Province.
- Environmental Impact Assessment (EIA) for the Proposed Construction of the Ithemba Wind Farm near Loeriefontein, Northern Cape Province.
- Environmental Impact Assessment (EIA) for the Proposed Construction of the !Xha Boom Wind Farm near Loeriefontein, Northern Cape Province.
- Environmental Impact Assessment (EIA) for the Proposed Construction of the 325MW Rondekop Wind Energy Facility between Matjiesfontein and Sutherland, Northern Cape Province.
- Environmental Impact Assessment (EIA) for the Proposed Construction of the Mooi Plaats Solar Photovoltaic (PV) Energy Facility near Noupoort, Northern Cape Province.



- Environmental Impact Assessment (EIA) for the Proposed Construction of the Wonderheuvel Solar Photovoltaic (PV) Energy Facility near Noupoort, Northern Cape Province.
- Environmental Impact Assessment (EIA) for the Proposed Construction of the Paarde Valley Solar Photovoltaic (PV) Energy Facility near Middelburg, Eastern Cape Province.

# <u>PART 2 ENVIRONMENTAL AUTHORISATION (EA) AMENDMENT PROCESSES FOR RENEWABLE</u> ENERGY PROJECTS:

- Part 2 Environmental Authorisation (EA) Amendment Process for the Proposed Development of the Aletta 140MW Wind Energy Facility (WEF) and Associated Infrastructure near Copperton, Northern Cape Province.
- Part 2 Environmental Authorisation (EA) Amendment Process for the Proposed Development of the 140 MW Beaufort West Wind Farm in the Prince Albert Local Municipality, Western Cape Province.
- Part 2 Environmental Authorisation (EA) Amendment Process for the Proposed Development of the 140MW Trakas West Wind Farm in the Prince Albert Local Municipality, Western Cape Province.
- Part 2 Environmental Authorisation (EA) Amendment Process for the Proposed Construction of the Dwarsrug Wind Farm near Loeriesfontein, Northern Cape Province.
- Part 2 Environmental Authorisation (EA) Amendment Process for the Proposed Construction of the 235MW Graskoppies Wind Farm near Loeriefontein, Northern Cape Province.
- Part 2 Environmental Authorisation (EA) Amendment Process for the Proposed Construction of the 235MW Hartebeest Leegte Wind Farm near Loeriefontein, Northern Cape Province.
- Part 2 Environmental Authorisation (EA) Amendment Process for the Proposed Construction of the 235MW Ithemba Wind Farm near Loeriefontein. Northern Cape Province.
- Part 2 Environmental Authorisation (EA) Amendment Process for the Proposed Construction of the 235MW !Xha Boom Wind Farm near Loeriefontein, Northern Cape Province.

#### VISUAL IMPACT ASSESSMENTS (VIAs) FOR INFRASTRUCTURE PROJECTS

- Visual Impact Assessment for the Nsoko Msele Integrated Sugar Project, Swaziland.
- Visual Impact Assessment for the Proposed Tinley Manor South Banks Beach Enhancement Solution, KwaZulu-Natal Province.
- Visual Impact Assessment for the Proposed Tinley Manor South Banks Beach Enhancement Solution, KwaZulu-Natal Province.
- Visual Impact Assessment for the proposed Mlonzi Hotel and Golf Estate Development, Near Lusikisiki, Eastern Cape Province
- Visual Impact Assessment for the Proposed Assagay Valley Development, KwaZulu-Natal Province.
- Visual Impact Assessment for the Proposed Kassier Road North Development, KwaZulu-Natal Province.



#### VISUAL IMPACT ASSESSMENTS (VIAs) FOR RENEWABLE ENERGY PROJECTS: -

- Visual Impact Assessment for the Helena Solar PV Plant, Northern Cape Province.
- Visual Impact Assessments for the proposed construction of the Sendawo Solar 1, Sendawo Solar 2 and Sendawo Solar 3 Photovoltaic (PV) Energy Facilities near Vryburg, North West Province.
- Visual Impact Assessments for the proposed construction of the Sendawo Substation and Associated 400kV Power Line near Vryburg, North West Province.
- Visual Impact Assessments for the proposed construction of the Tlisitseng Solar 1 and Tlisitseng Solar 2 Photovoltaic (PV) Energy Facilities near Lichtenburg, North West Province.
- Visual Impact Assessment for the proposed construction of the Tlisitseng 1 132kV Substation and associated 132kV Power Line near Lichtenburg, North West Province.
- Visual Impact Assessment for the proposed construction of the Tlisitseng 2 132kV Substation and associated 132kV Power Line near Lichtenburg, North West Province.
- Visual Impact Assessment for the proposed construction of the 3000MW PhilCo Green Energy Wind Farm and Associated Infrastructure near Richmond, Northern Cape Province.
- Visual Impact Assessment for the proposed construction of the Aletta 140MW Wind Energy Facility neat Copperton, Northern Cape Province.
- Visual Impact Assessment for the proposed construction of the Aletta 132kV Substation and associated 132kV Power Line near Copperton, Northern Cape Province.
- Visual Impact Assessment for the proposed construction of the Eureka 140MW Wind Energy Facility and associated Infrastructure near Copperton, Northern Cape Province.
- Visual Impact Assessment for the proposed construction of the Eureka 400kV Substation and 400kV Power Line neat Copperton, Northern Cape Province.
- Visual Impact Assessment for the Proposed Construction of the Graskoppies Wind Farm near Loeriesfontein, Northern Cape Province.
- Basic Visual Impact Assessment for the Proposed Construction of the Graskoppies Substation, Linking Substation and Associated 132kV Power Line near Loeriesfontein, Northern Cape Province.
- Visual Impact Assessment for the Proposed Construction of the Hartebeest Leegte Wind Farm near Loeriesfontein, Northern Cape Province.
- Basic Visual Impact Assessment for the Proposed Construction of the Hartebeest Leegte Substation, Linking Substation and Associated 132kV Power Line near Loeriesfontein, Northern Cape Province.
- Visual Impact Assessment for the Proposed Construction of the Ithemba Wind Farm near Loeriesfontein, Northern Cape Province.
- Basic Visual Impact Assessment for the Proposed Construction of the Ithemba Substation, Linking Substation and Associated 132kV Power Line near Loeriesfontein, Northern Cape Province.
- Visual Impact Assessment for the Proposed Construction of the !Xha Boom Wind Farm near Loeriesfontein, Northern Cape Province.



- Basic Visual Impact Assessment for the Proposed Construction of the !Xha Boom Substation, Linking Substation and Associated 132kV Power Line near Loeriesfontein, Northern Cape Province.
- Visual Impact Assessment for the Proposed Construction of the 315MW Phezukomoya Wind Energy Facility near Noupoort, Northern Cape Province.
- Visual Impact Assessment for the Proposed Construction of the 390MW Sankraal Wind Energy Facility near Noupoort, Northern Cape Province.
- Visual Impact Assessment for the proposed development of the Phase 1 Kuruman Wind Energy Facility, Kuruman, Northern Cape Province.
- Visual Impact Assessment for the proposed development of the Phase 2 Kuruman Wind Energy Facility, Kuruman, Northern Cape Province.
- Basic Visual Impact Assessment for the proposed development of Supporting Electrical Infrastructure to the Phase 1 and Phase 2 Kuruman Wind Energy Facilities, Kuruman, Northern Cape Province.
- Visual Impact Assessment for the proposed development of the 325MW Kudusberg Wind Energy Facility (WEF) located between Matjiesfontein and Sutherland in the Northern and Western Cape Provinces.
- Basic Visual Impact Assessment for the proposed construction of up to a 132kV Power Line and Associated Infrastructure for the Rooipunt Solar Thermal Power Plant near Upington, Northern Cape Province.
- Basic Visual Impact Assessment for the proposed construction of up to a 132kV Power Line and Associated Infrastructure for the proposed Kalkaar Solar Thermal Power Plant near Kimberly, Free State and Northern Cape Provinces.

# <u>ENVIRONMENTAL SCREENING / ENVIRONMENTAL REVIEW / ENVIRONMENTAL DUE</u> DILIGENCE PROJECTS

- Environmental Review of the Xakwa Coal Operations, adjacent to the proposed Eastside Junction Development.
- Environmental Due Diligence for the Woodlands and Harrowdene Office Parks in Woodmead, Gauteng Province.

#### SURFACE WATER ASSESSMENTS FOR INFRASTRUCTURE PROJECTS

- Surface Water Assessment for the Steve Thswete Local Municipality, Mpumalanga Province.
- Surface Water Delineation and Assessment for the proposed coal Railway Siding at the Welgedacht Marshalling Yard and associated Milner Road Upgrade near Springs, Ekurhuleni Metropolitan Municipality.

# Jenna Lavin

Tel: (+27) 083 619 0854 (c) E-mail address: jenna.lavin@gmail.com ID number: 8512050014089

Address: 103 D'Urban St, Bothasig, Cape Town

# **EDUCATION**:

Tertiary

2011 Continued Professional Development Course in Urban Conservation

Management (University of Cape Town) Part I and Part II

2010 M.Sc. with Distinction in Archaeology (University of Cape Town)

Title: Palaeoecology of the KBS member of the Koobi Fora Formation: Implications for

Pleistocene Hominin Behaviour.

2007 B.Sc. Honours in Archaeology (University of Cape Town)

Title: The Lost Tribes of the Peninsula: An Investigation into the historical distribution of

Chacma baboons (<u>Papio ursinus</u>) at the Cape Peninsula, South Africa.

Koobi Fora Field School, Rutgers University (U.S.A.)/ National Museums of Kenya

2006 B.Sc. Archaeology (University of Cape Town)

B.Sc. Environmental and Geographic Science (University of Cape Town)

Secondary

1999-2003 Rustenburg High School for Girls

Firsts in English, Afrikaans, Mathematics HG, Biology HG, History HG, Entrepreneurship.

# **EMPLOYMENT HISTORY:**

#### PROFESSIONAL DEVELOPMENT

**Environmental and Heritage Management:** 

Director: Heritage for CTS heritage and member of OpenHeritage NPC.

July 2016 to present

I am a member of the senior management of the company. I am responsible for project management and quality control on all of our heritage-related projects. I provide specialist heritage expertise when required and assist with the drafting of management plans, NIDs, heritage impact assessments and other specialist heritage reports. I liaise with clients, authorities and other specialists to ensure the highest quality product from CTS Heritage. I manage the budgets and financial compliance for all our projects and for the business in general. I also manage the staff in the Heritage Directorate.

I have been involved in developing the online map for the National Resistance and Liberation Heritage Route with DAC, contributing to the Stellenbosch Municipal Heritage Survey (SMHS) among other large-scale projects. The SMHS won an award in 2019. In addition to the SMHS, I have also worked on Municipal Inventories in terms of section 30 of the NHRA within the City of

Cape Town as well as in Saldanha Bay Municipality and Greyton. I have also assisted in drafting the World Heritage Nomination for the "Origins of Modern Humans" serial nomination. In addition, between 2016 and 2020 I have completed over 100 Heritage Impact Assessments, Archaeological Impact Assessments and Heritage Screening Assessments across South Africa.

Through OpenHeritage, I have been intimately involved with the development, and successful implementation of a digital heritage objects management system for the National Museum in Kenya as well as Tristan da Cuhna. We are in the process of rolling out the same system to the new Lesotho National Museum.

# Assistant Director for Policy, Research and Planning at Heritage Western Cape (HWC).

August 2014 to June 2016

As a member of the management structure of HWC, I was responsible for the drafting of new heritage related policy, the grading and declaration of Provincial Heritage Sites, the development of Conservation Management Plans, facilitating the development of inventories of heritage resources through local authorities as well as managing the development of the Western Cape's Heritage Information Management System (HIMS). I was also responsible for managing the project to nominate the Modern Human Origins proposed World Heritage Site.

In this position, on behalf of HWC I engaged with DEADP regarding the development of a Standard Operation Procedure in terms of section 38(8) of the NHRA. Furthermore, I engaged with the CoCT and other Local Authorities in terms of the process around the delegation of powers in terms of the NHRA.

I performed the role of Acting Deputy Director for HWC from April to December 2015, including financial management responsibilities, staff management responsibilities, problem solving and the training of new staff.

# • Heritage Officer for Palaeontology and for the Mpumalanga Province at the South African Heritage Resources Agency (SAHRA).

January 2013 to June 2014

Responsibilities in this position included managing palaeontological permit applications in terms of Section 35 of the NHRA and development applications in terms of Section 38 of the NHRA. Projects included the development of a National Palaeotechnic Report identifying significant palaeontological deposits throughout SA, as well as developing professional relationships between SAHRA and the Palaeontological Society of South Africa (PSSA) and the Geological Society of South Africa (GSSA). During this time, I was part of the team that developed the digitised National Palaeontological Sensitivity Map, the first of its kind in the world.

# • Heritage Officer for Archaeology, Palaeontology and Meteorites at Heritage Western Cape (HWC).

September 2010 to December 2012

HWC is a Public Entity that forms part of the Heritage Resource Management Component of the Provincial Governments' Department of Cultural Affairs and Sport (DCAS). Projects included the declaration of Pinnacle Point and the West Coast Fossil Park as Provincial Heritage Sites (PHSs), the management of the development of the Baboon Point PHS Conservation Management Plan as well as an educational outreach program as part of the DCAS MOD Centre Project.

• Heritage Officer for the Archaeology, Palaeontology and Meteorites Unit of the South African Heritage Resources Agency (SAHRA) as part of a three month contract.

January 2010 to March 2010

# Field Work Experience:

I ICIG WOLK EXP	ricia Work Experience:		
2016-present	Various archaeological and heritage field assessments for specialist archaeological		
	assessments and heritage impact assessments		
2010-2016	Various archaeological and heritage field assessments on behalf of HWC and SAHRA		
2008-2009	Field Assistant, Dr. D. Braun, Elandsfontein Excavation Locality, University of Cape Town		
	(UCT)		
	Field Assistant, Dr. D. Braun, Koobi Fora Research Project (Kenya), Rutgers University,		
	New Jersey		
2006	Field Assistant, Damiana Ravasi (PhD), Zoology Department, University of Cape Town.		
2005	Research Assistant, Dr. Becky Ackerman, Archaeology Department, University of Cape		
	Town		
2004	Field Assistant, Prestwich Place Excavation Locality, Archaeology Contracts Office, UCT		

# **Teaching Positions:**

reaching Positions.			
2020	Guest Lecturer, Introduction to South African Heritage Legislation, UCT MPhil:		
	Conservation of the Built Environment		
	Guest Lecturer, Introduction to South African Heritage Legislation, Rhodes University: Post		
	Graduate Diploma in Heritage		
2019	Guest Lecturer, Introduction to South African Heritage Legislation, UCT MPhil:		
	Conservation of the Built Environment		
2017	Guest Lecturer, South African Heritage Legislation, George Washington University		
	Heritage Management Field School		
2016	Guest Lecturer, South African Heritage Legislation, Archaeology Honours Course,		
	University of Cape Town		
2015	Guest Lecturer, South African Heritage Legislation, Archaeology Honours Course,		
	University of Cape Town		
2014	Guest Lecturer, South African Heritage Legislation, Archaeology Honours Course,		
	University of Cape Town		
2013	Guest Lecturer, South African Heritage Legislation, Archaeology Honours Course,		
	University of Cape Town		
2010	Teaching Assistant, Langebaanweg Field School, Arizona State University		
2009	Demonstrator, Archaeology in Practice, University of Cape Town (AGE3013H)		
	Demonstrator, Introduction to Geography, Earth and Environmental Science, University of		
	Cape Town (GEO1009F)		
	Teaching Assistant, Koobi Fora Field School (Kenya), Rutgers University, New Jersey		
	Lecturer, Introduction to Geography, Earth and Environmental Science: Supplementary		
	Course, University of Cape Town (EGS1004S)		
	Demonstrator, Elandsfontein Honours Field School, University of Cape Town (AGE4000W)		
2008	Demonstrator, Introduction to Geography, Earth and Environmental Science, University of		
	Cape Town (ERT1000F)		

#### **Conferences and Papers**

2019	ASAPA, Kimerley, RSA: "Interactive Online Mapping: Using innovative technologies to communicate the significance and relevance of archaeological sites"
2017	ASAPA, Pretoria, RSA: "Using Heritage Data to Guide Responsible Development: Tools to ensure high quality recording of heritage sites"
	ICAHM, Bagomoyo, Tanzania: "OpenHeritage: Development and implementation of
	national heritage management systems - Lessons from South Africa, Namibia and
	Kenya"
2016	ICAHM, Salalah, Oman: "Straight to the (Baboon) Point: A look at the Conservation of Archaeological Landscapes in South Africa using Baboon Point as a Case Study"
2015	Leakey Foundation, Sonoma County, San Fransisco, USA: ""Straight to the (Baboon) Point:
	A look at the Conservation of Archaeological Landscapes in South Africa using Baboon Point as a Case Study"
	Politi as a Case Study
2012	PSSA, Johannesburg, RSA: "SAHRIS Palaeosensitivity Map - Methodology and Implementation"

#### Other

In 2013 I was asked to join the panel of judges for the Ministerial awards for Heritage in the Western Cape. From 2013 to 2014, I was a member of the Heritage Western Cape Archaeology, Palaeontology and Meteorites Committee and I currently sit on the Heritage Western Cape Inventories, Gradings and Interpretations Committee, and have been since 2016.

In November 2013, I was awarded a bursary from the Department of Arts and Culture to complete a Masters in Philosophy in Conservation of the Built Environment through the UCT Faculty of Engineering and the Built Environment in 2014 and 2015. I was in the process of finalising this degree in 2017, however the birth of my son has halted my progress.

I am a paid up member of the Association for Southern African Professional Archaeologists (ASAPA), the Association of Professional Heritage Practitioners (APHP) and I have been a member of the Executive Council of APHP since 2014.

In June 2017, I was selected as Chair of APHP, a position that I currently hold. I am a member of the Palaeontological Society of South Africa (PSSA) and ICOMOS South Africa, for which I am Vice-President of the Board. I am also a member of the International Committee for Archaeological Heritage Management (ICAHM), a committee of UNESCO.

I am an active participant in a not-for-profit company called OpenHeritage which is dedicated to opening access to heritage resources through digital innovation. To this end, we have been involved in a number of projects including Wikipeadia Training with Africa Centre, the development and implementation of a Collections Management System for the National Museums of Kenya and the development of a digital Inventory of the Vernacular Architecture of the Eastern Cape.

# Referees

# **Colette Scheermeyer**

Deputy Director at HWC <u>Colette.scheermeyer@westerncape.gov.za</u> 021 481 3883

#### **Gerhard Gerber**

Director: Development Facilitation
Department of Environmental Affairs & Development Planning
<u>Gerhard.Gerber@westerncape.gov.za</u>
(0)21 483 2787

# **Andrew Hall**

CEO of HWC from 2011 to 2015 waitabout191@gmail.com (Currently based in Saudi Arabia)

#### APPENDIX 1: SPECIALIST CURRICULUM VITAE

# Johann Lanz Curriculum Vitae

#### **Education**

M.Sc. (Environmental Geochemistry)	University of Cape Town	1996 - 1997
B.Sc. Agriculture (Soil Science, Chemistry)	University of Stellenbosch	1992 - 1995
BA (English, Environmental & Geographical Science)	University of Cape Town	1989 - 1991
Matric Exemption	Wynberg Boy's High School	1983

#### Professional work experience

I have been registered as a Professional Natural Scientist (Pri.Sci.Nat.) in the field of soil science since 2012 (registration number 400268/12) and am a member of the Soil Science Society of South Africa.

# Soil & Agricultural Consulting Self employed

2002 - present

In the past 5 years of running my soil and agricultural consulting business, I have completed more than 120 agricultural assessments (EIAs, SEAs, EMPRs) in all 9 provinces for renewable energy, mining, urban, and agricultural developments. My regular clients include: Aurecon; CSIR; SiVEST; Arcus; SRK; Environamics; Royal Haskoning DHV; Jeffares & Green; JG Afrika; Juwi; Mainstream; Redcap; G7; Mulilo; and Tiptrans. Recent agricultural clients for soil resource evaluations and mapping include Cederberg Wines; Western Cape Department of Agriculture; Vogelfontein Citrus; De Grendel Estate; Zewenwacht Wine Estate; and Goedgedacht Olives.

In 2018 I completed a ground-breaking case study that measured the agricultural impact of existing wind farms in the Eastern Cape.

#### Soil Science Consultant Agricultural Consultors International (Tinie du Preez) 1998 - 2001

Responsible for providing all aspects of a soil science technical consulting service directly to clients in the wine, fruit and environmental industries all over South Africa, and in Chile, South America.

#### Contracting Soil Scientist De Beers Namaqualand Mines July 1997 - Jan 1998

Completed a contract to advise soil rehabilitation and re-vegetation of mined areas.

#### **Publications**

- Lanz, J. 2012. Soil health: sustaining Stellenbosch's roots. In: M Swilling, B Sebitosi & R Loots (eds). Sustainable Stellenbosch: opening dialogues. Stellenbosch: SunMedia.
- Lanz, J. 2010. Soil health indicators: physical and chemical. *South African Fruit Journal*, April / May 2010 issue.
- Lanz, J. 2009. Soil health constraints. South African Fruit Journal, August / September 2009 issue.
- Lanz, J. 2009. Soil carbon research. AgriProbe, Department of Agriculture.
- Lanz, J. 2005. Special Report: Soils and wine quality. Wineland Magazine.

I am a reviewing scientist for the South African Journal of Plant and Soil.



# **CURRICULUM VITAE: KATIE SMUTS**

ADDRESS: 75 Morning Side EMAIL: katie@archrsa.com

 Ndabeni
 CELLPHONE:
 0727967754

 7405
 PHONE:
 021 423 0328

WEBSITE: www.archrsa.com DATE OF BIRTH: 20/06/1978

#### **EMPLOYMENT HISTORY**

#### September 2018-Present: Senior Archaeological and Heritage Practitioner at RSA

Appointed Senior Archaeological and Heritage Practitioner at Rennie Scurr Adendorff. Duties for the firm include research and report writing related to applications submitted in terms of Sections 27, 34 and 38 of the NHRA, as well as specialist archaeological research, report writing and fieldwork, in terms of Sections 35 or 38.

# October 2017-August 2018: Archaeological Consultant & Heritage Practitioner

Freelance heritage specialist, providing a variety of heritage resources management services to fellow heritage practitioners and the general public. Compiling integrated HIAs, heritage reports, heritage statements and similar documents, as well as liaising with the Heritage Authorities. Providing consultancy services as an archaeologist, specialising in historical archaeology and built fabric analysis.

#### February 2017-September 2017: Heritage Specialist at CTS Heritage

CTS Heritage specialises in heritage management, digitisation, mapping and interpretation of heritage data. Responsible for reporting writing, GIS mapping and interpretation, as well as compiling HIAs, scoping reports, heritage statements, management plans and projects.

# October 2013-December 2016: Manager of the National Inventory, South African Heritage Resources Agency (SAHRA)

Promoted to Manager of the NIU at SAHRA and designated caretaker of SAHRA's online Information System, SAHRIS. Responsible for all strategic and operational planning, budgeting, project formulation and execution, appointment, management and performance review of staff, as well as reporting on Unit activities to Executive. Responsible for coordinating the National Audit Project, by assisting museums, galleries and other repositories to digitise their collections for inclusion in the national inventory and SAHRIS.

#### May 2012-September 2013: Heritage Officer, SAHRA

Heritage Officer in Archaeology, Palaeontology and Meteorites Unit at SAHRA. Responsible for assessing Heritage Impact Assessments submitted to SAHRA for development and mining applications in the Northern Cape and North West Province. Responsible for assessing HIAs for potential impacts on heritage resources and providing guiding comment on necessary mitigatory steps to relevant state department.

#### March 2009-May 2012: Archaeological Consultant (Self Employed)

Principal Investigator on various historical archaeology excavations and surveys of historic farmsteads. Responsible for site excavation, submission of permit applications, permit reports and Heritage Impact Assessments to Heritage Authorities for approval.

# August 2006-September 2006: Section Manager, Butrint, Albania

Appointed to manage excavations in a designated section of excavations at the Greco-Roman temple in the World Heritage Site of Butrint, Albania.

# February 2006-February 2009: Contract Archaeologist, ACO Associates

Field assistant and field director on a variety of projects, including archaeological survey, building analysis and excavation. Assisted with the compilation, review and editing of Heritage Impact Assessments, Archaeological Impact Assessments and field reports.

#### October 2004-January 2006: Contract Archaeologist, Various, UK

Field assistant on variety of UK archaeological sites, from Iron Age, Romano-British, Anglo-Saxon and Medieval periods, in rural and urban contexts.

#### June 2003-March 2004: Contract Archaeologist, ACO Associates

Field assistant for Prestwich Place excavations – rescue excavation of over 2500 skeletons from Green Point, City of Cape Town.

# January 2000-December 2000: Co-Director, Clanwilliam Living Landscapes Project

Initiated and co-ordinated the CLLP programme with Professor John Parkington, which uses archaeological methodology and practical experiences to teach maths and science principles and application to rural school children. Create curricula and teaching materials with teachers and Department of Education officials. Projects included collecting, recording and analysing archaeological material from the Clanwilliam Dam, statistical analysis of gravestones, rock art recording and scientific investigation of cultural landscapes.

# January 1999-May 2000: Tutor and lecturer, Archaeology Department, UCT

Tutored first and second year Archaeology students for Professor Judith Sealy and devised classes, taught, and set exams for first year semester course on South African, French and Australian rock art for Prof. Parkington.

#### **QUALIFICATIONS**

#### **Professional Development Courses:**

02/2017: Preserving Cultural Heritage (Sapienze University, Rome: Online Course) 02/2016: Antiquities Trafficking & Art Crime (University of Glasgow: Online Course)

09/10-11/10: Architecture & Urban Conservation II: Skills Development (UCT) 04/10-06/10: Architectural & Urban Conservation I: Theory & Development (UCT)

#### **Tertiary Education:**

2012: MPhil (Archaeology), UCT

1999: B.A. Honours Distinction (Historical Studies of Western Cape), UCT

1998: B.A. 1st Class (Archaeology, Classics), UCT

#### **AFFILIATIONS**

2017-present: Chair of Association of Southern African Professional Archaeologists

(ASAPA) Cultural Resource Management (CRM) Committee

2017-present: Member of Stanford Heritage Committee (Chair: 2018-2019)

2016-present: Member of Overstrand Heritage and Aesthetics Committee (Chair:

2019-present)

2015-present: Member of Association of Professional Heritage Practitioners (Chair

of Accreditation Committee and Executive Committee Member:

2015-2017)

2015-present: Treasurer of Heritage Association of Southern Africa (HASA) 2008-present: ASAPA CRM accreditation in Rock Art, Coastal Shell Middens,

Stone Age Archaeology and Grave Relocation

#### **REFEREES**

Director: Rennie Scurr Adendorff Architects	Heritage Director: CTS Heritage
Current Employer	Former Director
Mr Mike Scurr	Ms Jenna Lavin
Tel: 0 21 423 0328	Tel: 021 031 03101
Email: mike@archrsa.com	Email: jenna.lavin@ctsheritage.com
Deputy Director: HWC	Archaeologist and Heritage Consultant
Former Manager (SAHRA)	MPhil Advisor
Mrs Colette Scheermeyer	Dr Antonia Mala
Tel: 021 483 9682	Tel: 083 797 5672
Email:	Email: Antonia.malan@gmail.com
colette.scheermeyer@westerncape.gov.za	

+351 212 951 588 miguel.m@bioinsight.pt www.bioinsight.pt

#### Profile



Miguel Mascarenhas is a Manager and an Ecological Environmental specialist that likes challenges, innovation and be a solution designer. As a consequence, at Bioinsight, Miguel assumes the role of business developer focused on leading a highly motivated team that also loves to be challenged, whether by complex project or the development of disruptive solutions.

#### **■** Experience:





Worked in countries:

Portugal Mozambique

Projects for countries:

South Africa

Brazil

Colombia

Cape Verde

Kosovo

Mexico

Mozambique

Poland

Portugal

Turkey

#### Skills

Corporate management  $\bullet \bullet \bullet \bullet \bullet$  Environmental Impact  $\bullet \bullet \bullet \bullet \bigcirc$  Ecology

••••

#### + Employment

CHAIRMAN OF THE BOARD | BIODINÂMICA, MOZAMBIQUE Since 2017

SENIOR CONSULTANT | BIO3 (ACTUAL BIOINSIGHT), PORTUGAL 2012 - 2016

CEO AND BUSINESS DEVELOPMENT DIRECTOR | BIO3 (ACTUAL BIOINSIGHT), PORTUGAL

2011 - 2012

CEO | BIOINSIGHT, PORTUGAL

Since 2011

CEO | BIO3 (ACTUAL BIOINSIGHT), PORTUGAL

2005 - 2011

CEO | BIO3 LDA., PORTUGAL

2005 - 2013

FREELANCER | SEVERAL COMPANIES SUCH AS DHVFBO, ENERPRO, PROCESL E PGG, PORTUGAL

2003 - 2005

RESEARCHER | LABORATÓRIO DE BIOLOGIA CELULAR - INSTITUTO DE BIOLOGIA EXPERIMENTAL E TECNOLÓGICA, PORTUGAL

2002 - 2003

# + Education

POST-GRADUATION IN BUSINESS MANAGEMENT

INDEG Business School, Portugal

2011 - 2013

POST-GRADUATION IN GEOGRAPHIC INFORMATION SYSTEMS

Higher Institute of Agronomy, Portugal

2006 - 2006

MASTER'S DEGREE IN ENVIRONMENTAL IMPACT ASSESSMENT

Institute of Ecology Investigation of Málaga, Spain

2003 - 2004

GRADUATION IN APPLIED PLANTS BIOLOGY (EQF LEVEL 6)

Sciences Faculty of the University of Lisbon, Portugal

1995 - 2001

# **Bioinsight group projects**

Colombia.

2019 Wind Energy Wildlife monitoring in the Serra Babilónia solar-wind complex, Brazil. Brazil.

2020	Urban	Provide the documentation required to obtain credit under the BREEAM Certification credit at LE02, LE04 e LE05 requirements Portugal.
2020	Wind Energy	Fauna Monitoring during installation of VSM3 and VSM4 WindFarm. Brazil.
2020	Solar Energy	Prior Environmental Licensing of the Presidente Juscelino Solar Park (MG) - Fauna Component. Portugal.
2020	Wind Energy	Overequipment and repowering of the Archeira wind farm - Initial Environmental Examination review . Portugal.
2020	Wind Energy	Overequipment of Candeeiros Wind Farm - Turbine 38 platform recovery verification . Portugal.
2020	Agriculture	Ecological Component of the Environmental Impact Study of the Primary Defense System of Baixo Vouga Lagunar . Portugal.
2020	Wind Energy	Process to obtain installation licence for the Catanduba Wind Complex - Jandaíra / RN (Brazil) . Brazil.
2020	Other	Ecological characterization of the warehouse to support the PE substation in Pampilhosa da Serra . Portugal.
2020	Airports	Radar Study of Avifauna Movements in Southern Lezíria for Birdstrike Assessment of Montijo Airport . Portugal.
2020	Wind Energy	Bird and Bat Monitoring at the OVP of Sernancelhe Wind Farm (Pre-construction) . Portugal.
2020	Electric sector	Ecology section of the EIA of a 220kV Transmission Line . Portugal.
2020	Tourism	Reformulation of the Environmental Impact Study of the Allotment of a Tourist Development located in Herdade da Mata do Rei . Portugal.
2020	Wind Energy	Bat Monitoring at height and Mitigation Plan. Due Diligence on Bird Shutdown on Demand Protocol and Bird Monitoring Reports. Kiyiköy Wind Farm - Turkey.
2020	Airports	Environmental Compliance Report for the Montijo Airport Execution Project . Portugal.
	Wind Energy	Environmental Impact Assessment of a Wind Farm projec in Brazil Brazil.
	Mining	Ecological Component of the Aguada Mine Environmental Impact Study . Portugal.
	Mining	Ecological Component of the Casal de Braçais Mine Environmental Impact Study . Portugal.
	Mining	Ecological Component of the Bajoca Mine Environmental Impact Study . Portugal.
2020	3	Ecological Component of the Lousas Mine Environmental Impact Study . Portugal.
	Mining	Ecological Component of the Vila Seca Mine Environmental Impact Study . Portugal.
		Bird Monitoring in a Transmition Line, 400Kv. Portugal.
	Wind Energy	Evaluation of the Occurrence of Exotic Species and Vegetation Development in Prados Wind Farm. Portugal.
	Wind Energy	Fauna Monitoring during installation of TEB WindFarm. Brazil.
	Industry	Ecological Component of the Environmental Impact Study of Aboadela Industrial Allotment. Portugal.
		Monitoring of black-headed vulture (Coragyps atratus) at UHE in Itá / SC and proposed Action Plan for population control. Brazil.
	Industry	Ecological Component of the Environmental Impact Study of the change in the installed capacity of Paper Prime. Portugal.
	Solar Energy	Previous Environmental Licensing of the Santa Fé Solar Complex (RS) - Fauna Component. Brazil.
	Other	WFD compilance on dam's construction. Portugal.
	Wind Energy	Bird & Bat Monitoring Programme at Sincelo Wind Farm - Construction & Operation phase. Portugal.
	Wind Energy	Bird, Bat and, Flora&Habitats Monitoring Programme at Tocha II Wind Farm - Construction & Operation phase. Portugal.
		Anual monitoring of birds, bats and wolf at Bugueira Windfarm. Portugal.
	Wind Energy	Previous Environmental Licensing of the Santa Fé Wind Complex (RN - Brazil) - Fauna Component. Brazil.
	Other	Internal Audits of the Environmental Management System . Portugal.
		Fauna baseline for two Transmission Lines located in Bahía - Brazil. Brazil.
		Bird Monitoring in a Transmition Line. Brazil.
	Production sector	ENEL's Technical specifications adaptation considering Portuguese legal and other requirements. Portugal.
	Maritime/ Ports	Specialized support for post-EIA verifiers in the context of an audit of the Maritime Accessibility Improvement Project at the Port of Setúbal (construction phase). Portugal.
	Solar Energy	Plan for ecological continuity in Parque Solar de Morgavel. Portugal.
		Birds & Bats Screening and Baseline Assessment for Kappa Powerline. South Africa.
	Wind Energy	Noblesfontein WEF - Avifaunal Mitigation Plan. South Africa.
2019	Wind Energy	Birds and bats monitoring in the area of influence of 4 Wind Farms, in Guajira, Colombia - Year 0.

201	9 Wind Energy	Wildlife monitoring programs in the Serra do Mel wind complex. Brazil.
201	9 Hydric Energy	Ecological Component of the Environmental Impact Study of the Regularization of Ribeira de Ançã and Vala de Vale - Travesso, in the Mondego Hydraulic Station (Execution Project). Portugal.
201	9 Wind Energy	Annual Monitoring of Birds and Bats of the Bii Stinu Wind Farm (EDI) and Transmission line, Oaxaca, Mexico. Mexico.
201	9 Wind Energy	Bird, Bat and Flora Monitoring at ENEREEM's 2 Wind Farms at Paúl da Serra (Madeira Island). Portugal.
201	9 Solar Energy	Environmental Pre-feasibility Assessment for a Photovoltaic Power Generation Facility project in Matambo, Tete. Mozambique.
201	9 Transports	Ecological Component of the Environmental Technical Summary for the Integral Renewal Project of the Northern Line between Ovar and Espinho. Portugal.
201	9 Land Management	Ecological Component of the Loulé PDM Review - Additional to Phase 2 . Portugal.
201	9 Wind Energy	Bird and Bat Monitoring at Fonte Cova Wind Farm. Portugal.
201	9 Solar Energy	Environmental Licensing of a photovoltaic power production project. Brazil.
201	9 Airports	Herbaceous Vegetation Management Impact Study, at Humberto Delgado Airport. Portugal.
201	9 Airports	Biodiversity Study at Humberto Delgado Airport. Portugal.
201	9 Other	Estuarine bottom evolution and Ecology Monitoring - "Rio Mira's Sediments Transposition to the Reinforcment of Praia da Franquia's Dunar Cordon" - Post Intervention (Year 2). Portugal.
201	9 Tourism	Environmental Impact Assessment of a Tourism Development in Sesimbra. Portugal.
201	9 Wind Energy	Quali-quantitative analysis of Environmental Monitoring Data and design of an Integrated Environmental Monitoring Program (PMAI). Brazil.
201	9 Wind Energy	Bird, bats and terrestrial mammals monitoring during the intalation of 5 wind farms in Serra Do Mel Brazil.
201	9 Wind Energy	Environmental Impact Studies of the Serra da Lage Wind Farms "REPOWERING" and Mação 3 "REPOWERING". Portugal.
201	9 Extraction sector	Ecological Component of Environmental Impact Study of a Sand Quarry. Portugal.
201	9 Roads	Ecological component for the Study of the Environmental Feasibility of the Development of the Study for the Road Safety at EN118 between km $10 + 350$ and km $31 + 640$ . Portugal.
201	9 Wind Energy	Lage Wind Farm (RPW) and Mação 3 Wind Farm (RPW) - Avifauna and Chiroptera Monitoring - Year 0. Portugal.
201	9 Transports	Ecological Assessment of the Tua Railway Line between Brunheda and Mirandela. Portugal.
201	9 Extraction sector	Ecological Component of the Environmental Impact for the Vale Rodrigues Quarry No.2 Expansion Project. Portugal.
201	9 Wind Energy	Birds, Bats, Terrestrial mammals, Amphibians and Reptiles monitoring in 3 Wind Farms Complexes in northeast Brazil: Areia Branca, Serra do Mel and São Miguel do Gostoso. Brazil.
201	9 Animal Production	Elaboration of Cork-Oak Florest Monitoring Plan of Santo Isidro Farming Property. Portugal.
201	9 Wind Energy	Development of a bird and bat post construction monitoring plan for the Kitka WPP and transmission line, Kosovo. Kosovo.
201	9 Nature Conservation	Herdade Aberta Natural Values Management Plan and Monitoring Plan. Portugal.
201	9 Electric sector	Bird Monitoring at the Power Line of the Tocha II Wind Farm - Year 0. Portugal.
201	9 Wind Energy	Bird Monitoring at Douro Sul Wind Energy Facility - Moimenta and Sernancelhe Sub-Wind Farm (3rd Year Monitoring of the Operation phase). Portugal.
201	9 Agriculture	Bat Monitoring on Caliços-Machados Hydraulic Circuit and Irrigation Block (2019-2021). Portugal.
201	9 Wind Energy	Evaluating Radar Systems for Monitoring Risk to Migratory Birds at the Winddpark
201	9 Nature Conservation	Wolf National Census 2019/2021 - Lot 2 (Central North). Portugal.
201	9 Extraction sector	Ecological Componente of the Environmental Impact Study of the Cabeço da Pagem Quarry. Portugal.
201	9 Fisheries	Monitoring of Water Quality of Arco da Calheta Fish Farming Expansion Project. Portugal.
201	9 Wind Energy	Internal Audits of the Environmental Management System. Portugal.
	9 Education & Awareness	Biodiversity Studies in Aveiro. Portugal.
201	9 Wind Energy	Ecological section of Environmental Impact Study of Loiral II Wind Farm Overpowering. Portugal.
201	9 Wind Energy	Training in "Environmental Awareness". Portugal.
201	9 Wind Energy	Environmental and Social Impact Assessment of a wind energy Facility - Fauna section. Brazil.
201	9 Training	Capacity Building in GIS for Biosfera NGO. Cape Verde.
201	9 Wind Energy	Environmental Compliance Report of the Cabeço Gordo Wind Farm Execution Project. Portugal.
201	9 Other	Technical Report about na Algarve Cliff . Portugal.
201	9 Nature Conservation	Bioinsight Scientific Expeditions - Iberian Wolf. Portugal.
201	9 Wind Energy	Hartebeest Wind Energy Facility - Birds & Bats comparative assessment for turbine specification change. South Africa.

	Wind Energy Nature Conservation	Noblesfontein WEF - Evaluating solutions for appropriate mitigation measures. South Africa.  Ecological Component of the Environmental Incidence Assessment of na Aviary in Évora, Portugal.  Portugal.
2018	Electric sector	Ecological Component of the Environmental Incidence Assessmen of an Execution Project for the Eletrification of the section Marco de Canaveses - Régua da Linha do Douro, Portugal.
2018	Nature Conservation	Characterization of Flora and Vegetation of a Rural Hotel in Herdade da Comporta. Portugal.
2018	Wind Energy	Environmental Impact Study of the Cabeço Gordo Wind Farm (Arrimal). Portugal.
2018	Wind Energy	Annual Monitoring Study of Birds and Bats (daytime and nightime) in 2018 in the Park and in the Eletric Line of Bii Stinu Wind Farm (EDI), Oaxaca, Mexico. Mexico.
2018	Oil & Gas	Ecological Monitoring of the Construction of the Replacement Village (RV) Ecological Monitoring of a Replacement Village Project associated to the development of a Liquefied Natural Gas Project of Anadarko Moçambique Area 1 Limitada (AMA 1) in Palma. Mozambique.
2018	Mining	Ecological Component of the Environmental Impact Assessmen of an Mining Instalation enlargement in Aljustrel, Portugal. Portugal.
2018	Land Management	Ecological and climate componente of a Special Program for Ribeiradio-Ermida Dam, Portugal. Portugal.
2018		Environmental and Social Impact Assessment (ESIA) of a 220kV interconnection between Metoro - Palma (Mozambique). Mozambique.
2018	Electric Sector	Ecological Component of the Environmental Impact Assessmen of a substation of an Electric Energy Transformation - Tabaqueira, Portugal.
2018	Wind Energy	Environmental Report for legal framework application to the Portuguese Evironmental Authorithy (APA) on the Overcapacity Equipment in Archeira Wind Farm. Portugal.
2018	Wind Energy	Environmental report for the legal framework request from the Portuguese Environmental Authority (APA) regarding the Terreiro das Bruxas wind farm. Portugal.
2018	Animal Production	Ecology Component of the Environmental Impact Study of Cattle Exploitation Project in Portel. Portugal.
2018	Animal Production	Ecology Component of the Environmental Impact Study of the Poultry Facility in S. João das Lampas, Portugal. Portugal.
2018	Wind Energy	Birds and Bats monitoring in the Tocha II Wind Farm - Year 0 (pre-construction). Portugal.
2018	Hydric Energy	Ecological Component of the Environmental Impact Study of hydroelectric Plants in Abrantes, Martinchel and Cascata do Zêzere. Portugal.
2018	Water Treatment	Ecological Component of RECAPE of the Sewage treatment of Funchal. Portugal.
2018	Transports	Ecological Component of the Environmental Studies of the Road Network - Variant to the Cemetery - EN 115-4, Portugal Portugal.
2018	Hydric Energy	Monitoring of Terrestrial Fauna of the Foz Tua Hydroelectric Deployment - Construction Phase Balance Report. Portugal.
2018	Solar energy	Componente Ecológica do Estudo de Impacte Ambiental de 2 Centrais Solares em Salvaterra de Magos,Portugal Portugal.
2018	Wind Energy	Detailed Report of the Environmental Programs for 5 Wind Farms, Rio Grande do Norte state, Brazil. Brazil.
2018	Wind Energy	Support to the implementation of the Iberwind Environmental Management System to obtain ISO 14001 Certification. Portugal.
2018	Nature Conservation	Implementation and Monitoring of Passerine nest-boxes in areas under the management of Parques Sintra. Portugal.
2018	Urban	Monitoring of aquatic birds at Loures Riverside Pathway. Portugal.
	Maritime	Water Quality and Biological Communities monitoring in the area of internvetion of the Ria Formosa's Hydrodynamic Valorisation and Risk Mitigation of the barrier islands - Post-Dredging phase. Portugal.
	Tourism	Scientific expeditions. Portugal.
		Production of Tools for Dissemination and Sensitization of Freshwater Bivalve Mollusc Populations in the Tua River Basin. Portugal.
	Wind Energy	Environmental Impact Study of the Bigornes Wind Farm - Ecological Component. Portugal.
2018	Extraction sector	Collection and Storage of genetic material in the Seed Bank. Portugal.
2018	Wind Energy	Due Diligence for the European Bank for Reconstruction and Development (EBRD) to support the decision process of finance a Wind Power Project in eastern Kosovo. Portugal.
	Roads	Environmental Impact Study of Improvement of Accessibilities to the Campo Maior Industrial Zone - Ecological Component. Portugal.
2018	Airports	Evaluation of Impacts on Avifauna Component and other studies for the Environmental Impact Study of the Complementary Airport of Montijo. Portugal.
	Wind Energy	Bat and Bird Fatality Monitoring at Alto da Vaca Wind Farm (Operation phase). Portugal.
2018	Other	Provision of services for the Monitoring of the Evolution of Estuarine bottoms, Ecology and Cultural Heritage for the post-work phase of the Sediment Transposition project at the mouth of the Mira river for dune reinforcement Portugal.
2018	Agriculture	Ecological Component for the Reformulation of the EIA of the Right Adductor of the Pranto and the

		Compounding Block of Campo do Conde. Portugal.
2018	Agriculture	Hydraulic Linking Circuit to the Monte da Rocha and the Messejana Water Supply Block. Portugal.
2018	Solar Energy	Faunal Impact Assessment for 3 proposed Solar Energy Facilities: Heuningklip, Doornfontein & Kruispad.
		South Africa.
	Wind Energy	Update of Avifaunal Specialist Reports for Boulders Wind Energy Farm. South Africa.
	Wind Energy	Juno Wind Energy Farm - Additional for Bat Report Updates. South Africa.
2016	Wind Energy	Diamond Wind Energy Farm Bird and Bat Data Validity, Monitoring and Impact Assessment Reports for Basic Assessment Process. South Africa.
2018	Wind Energy	Kudusberg Wind Energy Farm Bird and Bat Specialist Studies for Basic Assessment Process. South Africa.
2018	Wind Energy	Bird and Bat pre-construction phase monitoring program at Rondekop Wind Energy Facility, Western Cape Province. South Africa.
2018	Wind Energy	Rheboksfontein Wind Energy Farm Turbine Specification Amendment for Bat Monitoring Programme. South Africa.
2017	Mining	Active monitoring of vegetation, foreseen in the Environmental Management Plan for the operation of the Moatize Coal Mine, Tete. Mozambique.
2017	Animal Production	Addendum to the project "Technical prescription for the Assessment, Management and Monitoring of High Conservation Values (HCV)": Production of cartographic information for HCV 1, 2, 3 and 4 for the new Portucel DUAT areas of Zambézia. Mozambique.
2017	Solar Energy	Ecological Section of the Environmental Impact Study of a Solar Power Plant in Ourique. Portugal.
2017	Electric sector	Bird Monitoring at Ponte de Lima - Vila Nova Famalicão powerline (400kV). Portugal.
2017	Electric sector	Bird Monitoring at the powerlines of Estremoz-Divor, Vieira do Minho - Pedralva 2, Recarei - Vila Nova de Famalicão, Vermoim - Vila Nova de Famalicão. Portugal.
2017	Wind Energy	Bird and Bat Monitoring at Chavães and Sendim Wind Farms' and associated powerline (operation phase - 3rd year). Poland.
2017	Nature Conservation	Design of the Management Plan of Agolada's and Monte da Barca's Dams. Portugal.
2017	Electric sector	Ecological Section of the Environmental Impact Study and Preliminary Environmental Compliance Report
		study of the Beira Alta's Powerline - Modernization Project of Pampilhosa-Mangualde powerline. Portugal.
	Tourism	Ecological Section of the Environmental Impact Study of Praia Campsite. Portugal.
2017	Tourism	Ecological Section of the Environmental Impact Study of a Land subdivision for a Tourist Resort located in Herdade da Mata do Rei (Sesimbra). Portugal.
2017	Land Management	Characterization of the natural values (Nature Conservation - fauna, flora, biodiversity) and Strategic Environmental Assessment aiming the Revision of Arronches Municipal Director Plan. Portugal.
	Wind Energy	Bat monitoring at Três Marcos and Douro Sul's Wind Farms. Portugal.
2017	Wind Energy	Flora and Vegetation Monitoring and invasive flora species' control at Três Marcos and Douro Sul's Wind Farms. Portugal.
2017	Nature Conservation	Monitoring of the State of Water Masses, Rivers and Reservoirs - RHS (River Habitat Survey) component, Portugal . Portugal.
2017	Nature conservation	Design and installation of an Interpretive Center - Iberian Wolf - in Vinhais in partnership with the City Council. Portugal.
2017	Tourism	Implementation of an Environmental Awareness Program and Promotion of Nature Tourism in Vinhais, in partnership with the City Council, Portugal - Sector Promotion of Conservation Tourism. Portugal.
	Urban	Pigeons Population Control in Caldas da Rainha's City, Portugal. Portugal.
	Wind Energy	Bird and Bat Monitoring of the expansion area of Caramulo's Wind Farm (pre-construction). Portugal.
	Wind Energy	Bird and Bat Monitoring of the expansion area of Gardunha's Wind Farm (pre-construction). Portugal.
2017	Roads	Ecological Section of the Environmental Impact Study of the En103 road - Vinhais/Bragança, Portugal. Portugal.
2017	Wind Energy	Update of the Ecological Section of Malhadas' Wind Farm Environmental Impact Study, Portugal . Portugal.
2017	Hydric Energy	Ecological Monitoring of the Calheta's Dam Expansion Project (Pre-Construction Phase), Portugal. Portugal.
2017	Industry	Ecological Section of the Environmental Impact Study of na aviary at Terceira Island -Azores, Portugal. Portugal.
2017	Wind Energy	Pandion halietus e Falco alexandri Collision Risk Analysis, at Boa Vista Wind Farm. Cape Verde.
2017	Wind Energy	Flora and Vegetation monitoring of the expansion area of Gardunhas', Caramulo and Pinhal Interior Wind Farms - Year 0, Portugal.
2017	Wind Energy	Flora and Vegetation monitoring of the expansion area of Gardunhas', Caramulo and Pinhal Interior Wind Farms - Year 0, Portugal.
2017	Wind Energy	Flora and Vegetation monitoring of the expansion area of Gardunhas', Caramulo and Pinhal Interior Wind Farms - Year 0, Portugal.
2017	Wind Energy	Ecological Section of the expansion area monitoring at Malhadas' Wind Farm - Year 0, Portugal. Portugal.
2017	Maritime	Water Bird Monitoring aiming the "Hydrodynamic valorization and risk mitigation of the Armona sea wall to reinforce the dune strand in Barril beach and Cavacos beach" (pre operation phase), Portugal. Portugal.
2017	Airports	Bird movement monitoring with radar technology in Ponta da Erva, Portugal. Portugal.

2017	Hydric Energy	Monitoring of the effectiveness and optimization of the watergates of Borland Crestuma-Lever, Carrapatelo and Régua - 12K Compensatory Measure - Increase of the Douro Fluvial Connectivity, Portugal. Portugal.
2017	Electric Sector	Environmental Impact Study and Preliminary Environmental Compliance Report in the Ecological Section of Feira - Ribeira da Pena powerline (400kV) and in its expansion area, Portugal. Portugal.
		Flora Monitoring Plan of Ponte de Lima - Vila Nova de Famalicão powerline (400kV), Portugal. Portugal. Ecological Component of the Reference Situation for a High Voltage Power Line and Substation, in Almada, Portugal. Portugal.
2017	Offshore Aquaculture	Ecological Section of the Environmental Impact Assessment of an Offshore Fish Farm Expansion in Madeira, Portugal. Portugal.
2017	Wind Energy	Ecological Monitoring of Avifauna, Bats and Flora from Year 0 of Cabeço Gordo Wind Farm (Arrimal). Portugal.
	Airports	Bird Monitoring at Francisco Sá Carneiro's Airport and surrounding area, Portugal . Portugal.
2017	Nature Conservation	Water Quality and Biological Communities Monitoring of the project area "Hydrodynamic valorization and risk mitigation of the Armona sea wall to reinforce the dune strand in Barril beach and Cavacos beach", Portugal. Portugal.
2017	Urban	Design of the Habitat Management Plan for IKEA Loulé. Portugal.
	Wind Energy	Flora Monitoring at S. Macario's Wind Farm, Portugal. Portugal.
	Urban	Ecological Section of the Environmental Studies of the "EN229 - IP5 / Mundão Business Park" Execution Project. Portugal.
2017	Maritime	Non-permanent monitoring by a specialized biologist of the misalignment in Mira Bar with transposition of Coast Sediments, Portugal. Portugal.
	Industry	Ecological Component of EINCA for the expansion of an industrial waste management unit in Batalha, Portugal. Portugal.
	Aquaculture	Environmental Evaluation of a Microalgae Prodution project. Portugal.
	Urban	Ecological Section of the Environmental Impact Study of the Execution Plan for a Pedestrian and Cyclable Course on the Frente Ribeirinha in Loures, Portugal. Portugal.
2017	Nature Conservation	Arachnofauna Inventory in Areas Under Management of Parques de Sintra - Monte da Lua. Portugal.
2017	Maritime/ Ports	Ecological Section of the Environmental Impact Study of the Modernization Project in Alcântara Container Terminal, Portugal.
2017	Oil & Gas	Environmental Impact Study of the Onshore Natural Gas Surveys in concessions of Batalha and Pombal, Portugal. Portugal.
2017	Hydric Energy	Non ecological Section of PIMA - Exploration phase in Foz Tua. Portugal.
2017	Animal Production	Ecological Section of the Environmental Impact Study of the Regulation Project and Licencing of a livestock in Ponte de Sor, Portugal. Portugal.
2017	Wind Energy	Ecological Monitoring: Birds carcass removal tests in LMAT Palmela-Évora, Portugal. Portugal.
2017	Tourism	Ecological Component of the Environmental Impact Assessmen of the Aldeia das Cegonhas Tourist Village. Portugal.
2017	Electric sector	Ecological Component of the Environmental Incidence Assessmen of "Linha do Alentejo - Troço Poceirão-Bombel e Bifurcação de Águas de Moura Sul" - elimination of constraints, Portugal. Portugal.
2016	Forestry	Portucel Forest Project in Zambézia: Technical prescription for the Assessment, Management and Monitoring of High Conservation Values (HCV), according to the FSC Principles and Criteria. Mozambique.
	Wind Energy	Iberian wolf monitoring at Serra de Bornes Wind Farm (construction phase), Portugal. Portugal.
	Wind Energy	Bird and Bat Carcass search monitoring at Alto do Marco's Wind Farm (operation phase - 2016). Portugal.
	Wind Energy	Technical Advisory in environmental licensing of wind farms in sensitive areas. Portugal.
	Wind Energy	Flora and vegetation monitoring at Picos - Vale do Chão Wind Farm and powerline (operation phase).  Portugal.
	Wind Energy	Bird Monitoring at Serra dos Candeeiros' Wind Farm. Portugal.
	Wind Energy	Ecological Management Advisory on the Environmental Impact Assessment (EIA) and post-EIA of Wind Farms. Portugal.
2016	Animal Production	Ecological Section of AvePark's Environmental Impact Assessment Study. Portugal.
	Wind Energy	Bird and Bat Monitoring at Caramulo's Wind Farm. Portugal.
		Implementation of an invasive flora species (Acacia sp.) management plan at Pampilhosa da Serra Wind Farm (operation phase - continuation), Portugal. Portugal.
		Implementation of an invasive flora species (Acacia sp.) Management Plan at Lousã I Wind Farm (operation phase - continuation), Portugal. Portugal.
	Wind Energy	Bird, Bat, Flora and Vegetation monitoring at Lousã II Wind Farm and its expansion area (operation phase). Portugal.
		Design and implementation of the bird monitoring plan at six 220 kV and 400 kV power lines at Lagoaça-Macedo de Cavaleiros crossing the International Douro Natural Park (continuation). Portugal.
2016	Hydric Energy	Ecological Section of the Preliminary Environmental Compliance Report study Of Calheta's Dam Expansion Project, Portugal. Portugal.

2016	Oil % Cac	Cabacarda vala (Misushus cabacara) maniharina undan bla Dualiminam. Favinannanbal Camalinnas Danarb
	Oil & Gas	Cabrera's vole (Microtus cabrerae) monitoring under the Preliminary Environmental Compliance Report study Celorico-Vale de Frades' Gas pipeline. Portugal.
2016	Electric sector	Bird monitoring at the power intensification station of Salamonde II, Venda Nova III and Vieira do Minho. Portugal.
2016	Wind Energy	Bird, Bat and Iberian Wolf Monitoring at Lomba da Seixa and Cabeço Alto and Wind Farm (Year 0) and Montalegre's Wind Farm (operation phase, year 1). Portugal.
2016	Wind Energy	Bird, Bat, Flora, Vegetation and Iberian Wolf Monitoring at the expansion area of Bornes' Wind Farm (operation phase). Portugal.
2016	Wind Energy	Bird and Bat Monitoring at Chão Falcão II & III Wind Farm and associated expansion areas (operation phase). Portugal.
2016	Animal Production	Ecological Section of the Environmental Impact Study of an existing Cattle Fattening infrastructure. Portugal.
2016	Animal Production	Ecological Section of the Environmental Impact Study of an existing Cattle Fattening infrastructure. Portugal.
2016	Land Management	Strategic Ecological Assessment of Vale da Telha's Detail Plan. Portugal.
2016	Nature Conservation	Bird Census and Vulnerability Assessment Study of the Disturbance of the International Douro Natural Park - Life Rupis Project. Portugal.
2016	Wind Energy	Iberian Wolf Monitoring of Montalegre's Wind Farm (operation phase, year 1), Portugal. Portugal.
2016	Wind Energy	Vegetation Recovery Status Checking of Lousã 2's Wind Farm Platforms. Portugal.
2016	Wind Energy	Bird and Bat Monitoring of Vila Lobos' Wind Farm (construction and operation phase). Portugal.
2016	Hydric Energy	Identification of floristic species with conservation interests of Foz Tua's powerlines (pre-construction phase). Portugal.
2016	Wind Energy	Bird and Bat Monitoring at Serra da Candeeiros' Wind Farm and its expansion area (operation phase). Portugal.
2016	Agriculture	Bat Monitoring at Caliços-Machados' Hydraulic circuit of Alqueva's Irrigation System (EFMA). Portugal.
2016	Tourism	Ecological Section of the Environmental Impact Study of Guia's Inn. Portugal.
2016	Hydric Energy	Zebra mussel monitoring at Alqueva's Irrigation System (EFMA) dams (2016/2017). Portugal.
2016	Wind Energy	Success Evaluation of the Implementation of the Management Plan for temporary lagoons at Lagoa Funda Wind Farm. Portugal.
2016	Hydric Energy	Monitoring of the phish populations and the emptying of the Dam of Hortas-Lever. Portugal.
2016	Nature Conservation	Ecological characterization of Jamor's River. Portugal.
2016	Urban	Ecological Section of the Environmental Impact Study of an Continuous Heatlh Care Unit Project in Pedreiras, Porto de Mós city, Portugal. Portugal.
2016	Roads	Monitoring of the ecological systems of Baixo Alentejo's Highway (contruction pahse). Portugal.
2016	Wind Energy	Environmental Report of the Arrimal Wind Farm - legal framework for the Portuguese Environmental Authorithy (APA - Portuguese Environment Agency) . Portugal.
	Wind Energy	Verification of the Recovery of Intervened Areas in Vila Lobos' Wind Farm. Portugal.
2016	Maritime	Ecological Impact Assessment of the Dune Cord's Reinforcement Environmental Compliance Report of Armona and Tavira's Islands - Fuseta-Mar Beach and west of Tavira Island. Portugal.
2016	Maritime	Monitoring of the Ecological and Evolutionary Components of the Estuarine bottoms for the Sediment Transposition Project of Mira's river mouth for dune Reinforcement purposes. Portugal.
2016	Wind Energy	Flora Monitoring at the expansion area of Candeeiros' Wind Farm (operation phase). Portugal.
2016	Maritime	Ecological technical note on Cavacos and Barril beaches. Portugal.
2016	Wind Energy	Design of the mortality monitoring plan of Malhadas' Wind Farm (year 0 update). Portugal.
2016	Wind Energy	Avifauna Specialist Pre-feasibility analysis and Risk Assessment of the proposed Inkamcwa Wind Energy Facility, Eastern Cape, South Africa. South Africa.
	Solar Energy	Fauna Specialist Impact Assessment: Cape Leopard for the proposed Bonnievale Solar Energy Facility, Western Cape, South Africa. South Africa.
	Solar Energy	Peer-revision of the Environmental Impact Assessment (Avifauna specialist impact assessment draft report) of the proposed Bonnievale Solar Energy Facility, Western Cape, South Africa. South Africa.
2016	Wind Energy	Environmental Impact Assessment (Avifauna specialist impact assessment) of the proposed Sommerset East Wind Energy Facility, Eastern Cape, South Africa. South Africa.
	Wind Energy	Avifauna community pre-construction phase monitoring program of the proposed Haga Haga Wind Energy Facility, Eastern Cape Province, South Africa. South Africa.
	Wind Energy	Avifauna Pre-feasibility analysis and Risk Assessment of the proposed Stutterhein Wind Energy Facility, Eastern Cape, South Africa. South Africa.
	Wind Energy	za43 - Spitskop East WEF
	Wind Energy	Bats and Avifauna Pre-feasibility analysis and Risk Assessment of the proposed Suurvlakte Wind Energy Facility, Western Cape, South Africa. South Africa.
	Wind Energy	Environmental Impact Assessment (Bat specialist impact assessment) of the proposed De Boom Wind Energy Facility, Western Cape, South Africa. South Africa.
2016	Wind Energy	Bird and Bat Pre-Construction Monitoring and Impact Assessment for the proposed Hartbeest WEF -

		Hadaha an ann ian an anthain a maharaha Cauth Africa
2016	Wind Energy	Update on previous monitoring protocols. South Africa.  Fauna Specialist Ground-Truthing of the Copperton Wind Energy Facility, Northern Cape, South Africa.  South Africa.
2015	Mining	Monitoring of periphytic algae associated to Environmental Management Plan (PGA) of Moatize Industrial Complex and its Expansion. Mozambique.
2015	Land Management	Biological Section of Odeceixe-Vilamoura's Coastline Programme. Portugal.
2015	Wind Energy	Monitoring and Implementation of the minimization strategies on flora and at Serra da Freita I and II Farm Wind. Portugal.
2015	Wind Energy	Bird Monitoring at Picos-Vale do Chão Wind Farm and power line (60kV) (construction and operation phase). Portugal.
2015	Wind Energy	Bird Monitoring at Douro Sul Wind Farm (Power Line 400kV, Moimenta and Sernancelhe sub-wind farms (construction and operation phase). Portugal.
2015	Maritime	Implementation of the Biological Communities Monitoring Plan of Formosa's Estuary Hydrodynamics Valorisation Plan. Portugal.
	Wind Energy Nature Conservation	Bat Monitoring at Escoural's Wind Farm (Year 0). Portugal.  Elaboration of the Biodiversity Study and Characterization of Xarraz's forest area under the Xarraz's Forest Park Design Project. Portugal.
2015	Education & Awareness	Scientific advisory to REN's project "Storks on the Web" (2009, 2010, 2011,2013, 2014 and 2015). Portugal.
2015	Hydric Energy	Fauna monitoring at Foz Tua Dam, Portugal (hydroelectric power station) - 2015 Summer and Spring Monitoring Program, Portugal. Portugal.
		Flora Monitoring at Três Marcos' Wind Farm (pre-construction phase). Portugal.
		Flora and bat roost monitoring at Escoural's Wind Farm (Year 0 ). Portugal.
	Wind Energy	Ecological Impact Assessment of Rio Maior - Carvoeira and Carregado - Rio Maior powerlines, 220/400 kV. Portugal.  Flora and vegetation monitoring at the Facho-Colmeia Wind Farm (operation phase). Portugal.
	Agriculture	Ecological clerk of works during the construction of Roxo-Sados' hydraulic circuit and irrigation block.
		Portugal.
2015	Electric Sector	Design of the Floristic Exotic Plan and Mapping Update of Vieira do Minho- Pedralva 2 powerline, Portugal. Portugal.
	Maritime	Ecological Impact Assessment of the Expansion of Peniche's Shipyards. Portugal.
	A	
	Agriculture Wind Energy	Bird monitoring along Alvito-Pisão water chanel inserted in the Alqueva Irrigation System (EFMA).  Portugal.  Bat Monitoring at Lagoa D. João e Foirão Wind Farm Portugal.
2015	Agriculture Wind Energy Roads	Portugal. Bat Monitoring at Lagoa D. João e Feirão Wind Farm. Portugal.
2015 2015	Wind Energy	Portugal.
2015 2015 2015	Wind Energy Roads Roads	Portugal.  Bat Monitoring at Lagoa D. João e Feirão Wind Farm. Portugal.  Biological Section of the Road Project "EN 233 - Guarda ( IP2/A23 km 1+635) and Sabugal (ER324 km 25+010) - Beneficiação", Portugal.
2015 2015 2015 2015	Wind Energy Roads Roads Maritime	Portugal.  Bat Monitoring at Lagoa D. João e Feirão Wind Farm. Portugal.  Biological Section of the Road Project "EN 233 - Guarda ( IP2/A23 km 1+635) and Sabugal (ER324 km 25+010) - Beneficiação", Portugal. Portugal.  Ecological Section of the Environmental Impact Studies for the road change (12 km) of Minho Center. Portugal.  Barrinha de Esmoriz's Rehabilitation and Enhancement Intervention Monitoring Programme (Pre-Construction Phase). Portugal.
2015 2015 2015 2015 2015 2015	Wind Energy Roads Roads Maritime Maritime	Portugal.  Bat Monitoring at Lagoa D. João e Feirão Wind Farm. Portugal.  Biological Section of the Road Project "EN 233 - Guarda ( IP2/A23 km 1+635) and Sabugal (ER324 km 25+010) - Beneficiação", Portugal. Portugal.  Ecological Section of the Environmental Impact Studies for the road change (12 km) of Minho Center. Portugal.  Barrinha de Esmoriz's Rehabilitation and Enhancement Intervention Monitoring Programme (Pre-Construction Phase). Portugal.  Seahorses' Translocation Plan concerning Ria Formosa's dredging project at intervention area number 2 (Faro / Olhão). Portugal.
2015 2015 2015 2015 2015 2015 2015	Wind Energy Roads Roads Maritime Maritime Hydric Energy	Portugal.  Bat Monitoring at Lagoa D. João e Feirão Wind Farm. Portugal.  Biological Section of the Road Project "EN 233 - Guarda ( IP2/A23 km 1+635) and Sabugal (ER324 km 25+010) - Beneficiação", Portugal. Portugal.  Ecological Section of the Environmental Impact Studies for the road change (12 km) of Minho Center. Portugal.  Barrinha de Esmoriz's Rehabilitation and Enhancement Intervention Monitoring Programme (Pre-Construction Phase). Portugal.  Seahorses' Translocation Plan concerning Ria Formosa's dredging project at intervention area number 2 (Faro / Olhão). Portugal.  Implementation of compensatory measure at Foz Tua's Dam - Predation Risk Reduction on pyrenean desman. Portugal.
2015 2015 2015 2015 2015 2015 2015 2015	Wind Energy Roads Roads Maritime Maritime Hydric Energy Electric sector	Portugal.  Bat Monitoring at Lagoa D. João e Feirão Wind Farm. Portugal.  Biological Section of the Road Project "EN 233 - Guarda ( IP2/A23 km 1+635) and Sabugal (ER324 km 25+010) - Beneficiação", Portugal. Portugal.  Ecological Section of the Environmental Impact Studies for the road change (12 km) of Minho Center. Portugal.  Barrinha de Esmoriz's Rehabilitation and Enhancement Intervention Monitoring Programme (Pre-Construction Phase). Portugal.  Seahorses' Translocation Plan concerning Ria Formosa's dredging project at intervention area number 2 (Faro / Olhão). Portugal.  Implementation of compensatory measure at Foz Tua's Dam - Predation Risk Reduction on pyrenean desman. Portugal.  Ecological Section of the Environmental Impact Study for Estremoz-Divor's Powerline. Portugal.
2015 2015 2015 2015 2015 2015 2015 2015	Wind Energy Roads Roads Maritime Maritime Hydric Energy	Portugal.  Bat Monitoring at Lagoa D. João e Feirão Wind Farm. Portugal.  Biological Section of the Road Project "EN 233 - Guarda ( IP2/A23 km 1+635) and Sabugal (ER324 km 25+010) - Beneficiação", Portugal. Portugal.  Ecological Section of the Environmental Impact Studies for the road change (12 km) of Minho Center. Portugal.  Barrinha de Esmoriz's Rehabilitation and Enhancement Intervention Monitoring Programme (Pre-Construction Phase). Portugal.  Seahorses' Translocation Plan concerning Ria Formosa's dredging project at intervention area number 2 (Faro / Olhão). Portugal.  Implementation of compensatory measure at Foz Tua's Dam - Predation Risk Reduction on pyrenean desman. Portugal.
2015 2015 2015 2015 2015 2015 2015 2015	Wind Energy Roads Roads Maritime Maritime Hydric Energy Electric sector	Portugal.  Bat Monitoring at Lagoa D. João e Feirão Wind Farm. Portugal.  Biological Section of the Road Project "EN 233 - Guarda ( IP2/A23 km 1+635) and Sabugal (ER324 km 25+010) - Beneficiação", Portugal. Portugal.  Ecological Section of the Environmental Impact Studies for the road change (12 km) of Minho Center. Portugal.  Barrinha de Esmoriz's Rehabilitation and Enhancement Intervention Monitoring Programme (Pre-Construction Phase). Portugal.  Seahorses' Translocation Plan concerning Ria Formosa's dredging project at intervention area number 2 (Faro / Olhão). Portugal.  Implementation of compensatory measure at Foz Tua's Dam - Predation Risk Reduction on pyrenean desman. Portugal.  Ecological Section of the Environmental Impact Study for Estremoz-Divor's Powerline. Portugal.  Ecological Section of the Environmental Impact Assesment of Celorico-Vale de Frades gas pipeline.
2015 2015 2015 2015 2015 2015 2015 2015	Wind Energy Roads Roads Maritime Maritime Hydric Energy Electric sector Oil & Gas Maritime Roads	Portugal.  Bat Monitoring at Lagoa D. João e Feirão Wind Farm. Portugal.  Biological Section of the Road Project "EN 233 - Guarda ( IP2/A23 km 1+635) and Sabugal (ER324 km 25+010) - Beneficiação", Portugal. Portugal.  Ecological Section of the Environmental Impact Studies for the road change (12 km) of Minho Center. Portugal.  Barrinha de Esmoriz's Rehabilitation and Enhancement Intervention Monitoring Programme (Pre-Construction Phase). Portugal.  Seahorses' Translocation Plan concerning Ria Formosa's dredging project at intervention area number 2 (Faro / Olhão). Portugal.  Implementation of compensatory measure at Foz Tua's Dam - Predation Risk Reduction on pyrenean desman. Portugal.  Ecological Section of the Environmental Impact Study for Estremoz-Divor's Powerline. Portugal.  Ecological Section of the Environmental Impact Assesment of Celorico-Vale de Frades gas pipeline. Portugal.  Water quality moitoring in the area of intervention of the Ria Formosa's Hydrodynamics Valorisation Plan - Tavira and Armona sections. Portugal.  Ecological Section of the Road Project "EN362 - Beneficiação km 22+344" Santarém county boundary with Porto de Mós and km 51 + 713 junction with EN3 near Santarém. Portugal.
2015 2015 2015 2015 2015 2015 2015 2015	Wind Energy Roads Roads Maritime Maritime Hydric Energy Electric sector Oil & Gas Maritime Roads Electric sector	Portugal.  Bat Monitoring at Lagoa D. João e Feirão Wind Farm. Portugal.  Biological Section of the Road Project "EN 233 - Guarda ( IP2/A23 km 1+635) and Sabugal (ER324 km 25+010) - Beneficiação", Portugal. Portugal.  Ecological Section of the Environmental Impact Studies for the road change (12 km) of Minho Center. Portugal.  Barrinha de Esmoriz's Rehabilitation and Enhancement Intervention Monitoring Programme (Pre-Construction Phase). Portugal.  Seahorses' Translocation Plan concerning Ria Formosa's dredging project at intervention area number 2 (Faro / Olhão). Portugal.  Implementation of compensatory measure at Foz Tua's Dam - Predation Risk Reduction on pyrenean desman. Portugal.  Ecological Section of the Environmental Impact Study for Estremoz-Divor's Powerline. Portugal.  Ecological Section of the Environmental Impact Assesment of Celorico-Vale de Frades gas pipeline. Portugal.  Water quality moitoring in the area of intervention of the Ria Formosa's Hydrodynamics Valorisation Plan - Tavira and Armona sections. Portugal.  Ecological Section of the Road Project "EN362 - Beneficiação km 22+344" Santarém county boundary with Porto de Mós and km 51 + 713 junction with EN3 near Santarém. Portugal.  Ecological Section of the Environmental Impact Study of underground Powerlines at Custóias-Vermoim 3, Custóias-Prelada 2 e Prelada-Vermoim 3, 220 kV. Portugal.
2015 2015 2015 2015 2015 2015 2015 2015	Wind Energy Roads Roads Maritime Maritime Hydric Energy Electric sector Oil & Gas Maritime Roads Electric sector Maritime	Portugal.  Bat Monitoring at Lagoa D. João e Feirão Wind Farm. Portugal.  Biological Section of the Road Project "EN 233 - Guarda ( IP2/A23 km 1+635) and Sabugal (ER324 km 25+010) - Beneficiação", Portugal. Portugal.  Ecological Section of the Environmental Impact Studies for the road change (12 km) of Minho Center. Portugal.  Barrinha de Esmoriz's Rehabilitation and Enhancement Intervention Monitoring Programme (Pre-Construction Phase). Portugal.  Seahorses' Translocation Plan concerning Ria Formosa's dredging project at intervention area number 2 (Faro / Olhão). Portugal.  Implementation of compensatory measure at Foz Tua's Dam - Predation Risk Reduction on pyrenean desman. Portugal.  Ecological Section of the Environmental Impact Study for Estremoz-Divor's Powerline. Portugal.  Ecological Section of the Environmental Impact Assesment of Celorico-Vale de Frades gas pipeline. Portugal.  Water quality moitoring in the area of intervention of the Ria Formosa's Hydrodynamics Valorisation Plan - Tavira and Armona sections. Portugal.  Ecological Section of the Road Project "EN362 - Beneficiação km 22+344" Santarém county boundary with Porto de Mós and km 51 + 713 junction with EN3 near Santarém. Portugal.  Ecological Section of the Environmental Impact Study of underground Powerlines at Custóias-Vermoim 3,
2015 2015 2015 2015 2015 2015 2015 2015	Wind Energy Roads Roads Maritime Maritime Hydric Energy Electric sector Oil & Gas Maritime Roads Electric sector Maritime	Portugal.  Bat Monitoring at Lagoa D. João e Feirão Wind Farm. Portugal.  Biological Section of the Road Project "EN 233 - Guarda ( IP2/A23 km 1+635) and Sabugal (ER324 km 25+010) - Beneficiação", Portugal. Portugal.  Ecological Section of the Environmental Impact Studies for the road change (12 km) of Minho Center. Portugal.  Barrinha de Esmoriz's Rehabilitation and Enhancement Intervention Monitoring Programme (Pre-Construction Phase). Portugal.  Seahorses' Translocation Plan concerning Ria Formosa's dredging project at intervention area number 2 (Faro / Olhão). Portugal.  Implementation of compensatory measure at Foz Tua's Dam - Predation Risk Reduction on pyrenean desman. Portugal.  Ecological Section of the Environmental Impact Study for Estremoz-Divor's Powerline. Portugal.  Ecological Section of the Environmental Impact Assesment of Celorico-Vale de Frades gas pipeline. Portugal.  Water quality moitoring in the area of intervention of the Ria Formosa's Hydrodynamics Valorisation Plan - Tavira and Armona sections. Portugal.  Ecological Section of the Road Project "EN362 - Beneficiação km 22+344" Santarém county boundary with Porto de Mós and km 51 + 713 junction with EN3 near Santarém. Portugal.  Ecological Section of the Environmental Impact Study of underground Powerlines at Custóias-Vermoim 3, Custóias-Prelada 2 e Prelada-Vermoim 3, 220 kV. Portugal.  Monitoring of Terrestrial Biological Communities at the Intervention area of the Redevelopment Project of barrier islands and islets - Renaturalisation and of Ria Formosa's Hydrodynamics Valorisation Plan. Portugal.  Ecological Section of the Environmental Impact Study of the new tissue paper Industrial Unit to be built at Vila Velha de Rodão. Portugal.
2015 2015 2015 2015 2015 2015 2015 2015	Wind Energy Roads Roads Maritime Maritime Hydric Energy Electric sector Oil & Gas Maritime Roads Electric sector Maritime Other Hydric Energy	Portugal.  Bat Monitoring at Lagoa D. João e Feirão Wind Farm. Portugal.  Biological Section of the Road Project "EN 233 - Guarda ( IP2/A23 km 1+635) and Sabugal (ER324 km 25+010) - Beneficiação", Portugal. Portugal.  Ecological Section of the Environmental Impact Studies for the road change (12 km) of Minho Center. Portugal.  Barrinha de Esmoriz's Rehabilitation and Enhancement Intervention Monitoring Programme (Pre-Construction Phase). Portugal.  Seahorses' Translocation Plan concerning Ria Formosa's dredging project at intervention area number 2 (Faro / Olhão). Portugal.  Implementation of compensatory measure at Foz Tua's Dam - Predation Risk Reduction on pyrenean desman. Portugal.  Ecological Section of the Environmental Impact Study for Estremoz-Divor's Powerline. Portugal.  Ecological Section of the Environmental Impact Assesment of Celorico-Vale de Frades gas pipeline. Portugal.  Water quality moitoring in the area of intervention of the Ria Formosa's Hydrodynamics Valorisation Plan - Tavira and Armona sections. Portugal.  Ecological Section of the Road Project "EN362 - Beneficiação km 22+344" Santarém county boundary with Porto de Mós and km 51 + 713 junction with EN3 near Santarém. Portugal.  Ecological Section of the Environmental Impact Study of underground Powerlines at Custóias-Vermoim 3, Custóias-Prelada 2 e Prelada-Vermoim 3, 220 kV. Portugal.  Monitoring of Terrestrial Biological Communities at the Intervention area of the Redevelopment Project of barrier islands and islets - Renaturalisation and of Ria Formosa's Hydrodynamics Valorisation Plan. Portugal.  Ecological Section of the Environmental Impact Study of the new tissue paper Industrial Unit to be built at Vila Velha de Rodão. Portugal.  Ecological Section of the Environmental Impact Study Addendum of Calheta's Dam (pipe amendments). Portugal.
2015 2015 2015 2015 2015 2015 2015 2015	Wind Energy Roads Roads Maritime Maritime Hydric Energy Electric sector Oil & Gas Maritime Roads Electric sector Maritime	Portugal.  Bat Monitoring at Lagoa D. João e Feirão Wind Farm. Portugal.  Biological Section of the Road Project "EN 233 - Guarda ( IP2/A23 km 1+635) and Sabugal (ER324 km 25+010) - Beneficiação", Portugal. Portugal.  Ecological Section of the Environmental Impact Studies for the road change (12 km) of Minho Center. Portugal.  Barrinha de Esmoriz's Rehabilitation and Enhancement Intervention Monitoring Programme (Pre-Construction Phase). Portugal.  Seahorses' Translocation Plan concerning Ria Formosa's dredging project at intervention area number 2 (Faro / Olhão). Portugal.  Implementation of compensatory measure at Foz Tua's Dam - Predation Risk Reduction on pyrenean desman. Portugal.  Ecological Section of the Environmental Impact Study for Estremoz-Divor's Powerline. Portugal.  Ecological Section of the Environmental Impact Assesment of Celorico-Vale de Frades gas pipeline. Portugal.  Water quality moitoring in the area of intervention of the Ria Formosa's Hydrodynamics Valorisation Plan - Tavira and Armona sections. Portugal.  Ecological Section of the Road Project "EN362 - Beneficiação km 22+344" Santarém county boundary with Porto de Mós and km 51 + 713 junction with EN3 near Santarém. Portugal.  Ecological Section of the Environmental Impact Study of underground Powerlines at Custóias-Vermoim 3, Custóias-Prelada 2 e Prelada-Vermoim 3, 220 kV. Portugal.  Monitoring of Terrestrial Biological Communities at the Intervention area of the Redevelopment Project of barrier islands and islets - Renaturalisation and of Ria Formosa's Hydrodynamics Valorisation Plan. Portugal.  Ecological Section of the Environmental Impact Study of the new tissue paper Industrial Unit to be built at Vila Velha de Rodão. Portugal.

		Valorication Plan and Dick mitigation at Barrior islands and islats - Earo-Olhão soction, Portugal
2015	N.4	Valorisation Plan and Risk mitigation at Barrier islands and islets - Faro-Olhão section. Portugal.  Ecological Section of the Strategic Environmental Assessment of eight Hydrographic Management Plans.  Portugal.
2015	Roads	Update of the biotopes and habitats on Minho's North roadways. Portugal.
2015	Wind Energy	Flora Monitoring at the expansion area of Candeeiros Wind Farm (construction phase). Portugal.
2015	Wind Energy	Bird Monitoring at Três Marcos' Wind farm (construction and operation phase). Portugal.
2015	Wind Energy	Ecological Impact Assessment of Mirandela Wind Farm. Portugal.
2015	Hydric Energy	Design of the Ecological Monitoring Plan of Mondego's river Dam. Portugal.
2015	Roads	Water quality monitoring during the construction phases of the Baixo Alentejo Highway. Portugal.
2015	Hydric Energy	Environmental Impact Assesment of the River Fauna of Foz Tua's Dam Mobility Plan. Portugal.
2015	Wind Energy	Bird community pre-construction monitoring program of the proposed Witsand Wind Energy Facility, Western Cape Province, South Africa. South Africa.
2015	Wind Energy	Bird community pre-construction phase monitoring program of the proposed Noblesfontein 2 Wind Energy Facility, Western Cape Province, South Africa. South Africa.
2015		Bat community operation phase monitoring program of the ESKOM Sere Wind Energy Facility, Western Cape Province, South Africa (Year 1, 2 and 3). South Africa.
2015	Wind Energy	Environmental Impact Assessment (Fauna specialist impact assessment) of the proposed Spitskop West Wind Energy Facility, Eastern Cape, South Africa . South Africa .
2015	Wind Energy	Environmental Impact Assessment (Bat specialist impact assessment) of the proposed Kudusberg Wind Energy Facility, Northern Cape, South Africa. South Africa.
2015	Solar Energy	Environmental Impact Assessment (Avifauna specialist impact assessment) Heuningklip Solar Energy Facility, Western Cape, South Africa.
2014	Electric Sector	Ecological section of the Environmental Compliance Report of the porwerlines between Carrapatelo, Fridão, Ribeira de Pena and Vila Pouca de Aguiar , 400kV, Portugal. Portugal.
2014	Electric Sector	Iberian Wolf Monitoring associated to the environmental clerk of works of Vieira do Minho's 400 kV power line, Portugal. Portugal.
2014	Agriculture	Aquatic ecosystems' monitoring at Ferradosa's dam, Portugal (operation phase). Portugal.
2014	Nature Conservation	Scientific and technical advisory to the GAC Oeste Project (Portugal) - Berlengas Biophere Reserve: Plan for the evaluation of Biodiversity and Ecosystem Services. Portugal.
2014	Wind Energy	Bulb transplant in the new access to the turbine 28 at Serra de Candeeiros' Wind Farm, Portugal (operation phase). Portugal.
2014	Offshore Energy	Environmental Characterization Study of the Portuguese Offshore Pilot Zone of ENONDAS, S.A., Portugal. Portugal.
2014	Hydric Energy	Fauna monitoring and specialist studies to be integrated in the Environmental Management of Girabolhos' Hydroelectric Power Plant, Portugal (pre-construction phase). Portugal.
2014	Wind Energy	Bird and Bat monitoring at Vila Lobos' Wind Farm, Portugal (pre-construction phase). Portugal.
2014	Wind Energy	Assessment of the use of a Bonelli's eagle's nest in the surroundings of Figueira Brava Wind Farm, Portugal. Portugal.
2014	Wind Energy	Bird, Bat and Flora Monitoring at the Portela do Pereiro's Wind Farm, Portugal (operation phase). Portugal.
2014	Wind Energy	Bird, Bat and flora monitoring at Altos dos Forninhos' Wind Farm (operation phase). Portugal.
	Wind Energy	Ecological Impact Assessment of the Três Marcos II's Wind Farm, Portugal. Portugal.
2014	Electric Sector	Characterization of the land use, flora and fauna for the amendment of the 400Kv power line interconnection between South Douro's Wind Farm, Armamar substation and Moimenta's Wind Farm Substation, Portugal. Portugal.
2014	Wind Energy	Amphibians, Reptiles and Terrestrial Mammals monitoring and Land clearing, soil and biomass management plan at Três Marcos' Wind Farm, Portugal. Portugal.
2014	Wind Energy	Bird, Bat, flora and vegetation monitoring at Vale da Estrela's Wind Farm (construction and operation phase), Portugal. Portugal.
2014	Electric Sector	Flora Monitoring at Vieira do Minho's substation, Portugal. Portugal.
2014	Nature Conservation	Development of an Educational programme for three protected wildlife species. Portugal.
2014		Technical report on mitigation techniques to reconcile a Finnish Wind Farm with Golden Eagle, Finland
		Implementation of an invasive species Management Plan at Lousã II Wind Farm, Portugal. Portugal.
2014	Nature Conservation	Monitoring of the Arzila's Marsh natural values, Vouga River , Tejo Estuary and Corno do Bico (2014-2015), Portugal. Portugal.
2014	Mining	Bat ecological assessment for the Former Mining Area of Santo António de Penedono Rehabilitation Project, Portugal. Portugal.
2014	Electric Sector	Ecological Impact Assesment and bird monitoring of Iberdrola's powerlines (construction phase), Portugal. Portugal.
2014	Hydric Energy	Implementation of the minimization strategies on the fish populations associated to the emptying the water masses of Foz Tua's Dam (Construction Phase), Portugal. Portugal.
2014	Hydric Energy	Ecological Section of the Environmental Compliance Report of the connection of Foz Tua Dam, 400 kV, to the National Network for Energy Transportation, Portugal.
2014	Wind Energy	Bird Monitoring at Escoural's Wind Farm (Year 0). Portugal.

2014	Wind Energy	Bat monitoring at Alvaiázere Wind Farm (5th year monitoring - operation phase). Portugal.
2014	Wind Energy	Bird and Bat Post-construction Monitoring at Noblesfontein Wind Energy Facility (Northern Cape). South Africa.
2013	Wind Energy	Ecological clerk of works and flora monitoring at Prados Wind Farm, Portugal (construction phase). Portugal.
2013	Wind Energy	Design and Implementation of the Montagu's Harrier (Circus pygargus) Offset Programme at Prados Wind Farm. Portugal.
2013	Wind Energy	Design and implementation of the Common Kestrel (Falco tinnunculus) Mitigation and Offset Programme at Candeeiros Wind Farm. Portugal.
2013	Wind Energy	Bird including red-billed cough, and flora monitoring at Candeeiros Wind Farm, Portugal (operation phase 2005-2015). Portugal.
2013	Wind Energy	Bird monitoring, including red-billed cough, and flora monitoring at Candeeiros Wind Farm, Portugal (operation phase 2005-2015). Portugal.
	Wind Energy	Flora and vegetation monitoring at the Serra da Freita Wind Farm, Portugal (operation phase). Portugal.
2013	Wind Energy	Montagu's Harrier (Circus pygargus) monitoring at Chiqueiro Wind Farm, Portugal (operation phase). Portugal.
2013	Wind Energy	Flora and vegetation monitoring at the expansion area of Serra da Freita I Wind Farm (pre-construction and construction phases). Portugal.
	Wind Energy	Flora monitoring at the expansion area of Bornes Wind Farm, Portugal (pre-construction phase). Portugal.
2013	Education & Awareness	Scientific advisory to REN's project "Storks on the Web" (2009, 2010, 2011, 2013, 2014 and 2015). Portugal.
2013	Wind Energy	Endangered flora species (Veronica micrantha) monitoring at Bornes Wind Farm, Portugal (extension of the monitoring period in the operation phase). Portugal.
2013	Wind Energy	Design and implementation of the Bird Offset Programme at Mértola Wind Farm, Portugal. Portugal.
	Wind Energy	Bird monitoring at Mértola's Wind Farm (pre-construction, construction and operation phases). Portugal.
2013	Wind Energy	Bird monitoring at Mértola's Wind Farm, Portugal (pre-construction, construction and operation phases). Portugal.
2013	Water Treatment	Ecological risk analysis associated with the activities of "Águas de Santo André, SA" (ADSA) in the management, operation and maintenance of the facilities and equipment of Santo André's wastewater subsystem, Portugal. Portugal.
2013	Wind Energy	Bat and flora monitoring at the expansion area of Candeeiros Wind Farm, Portugal (pre-construction phase). Portugal.
2013	Maritime/ Ports	Bird, flora and benthic macroinvertebrates monitoring at the Termitrena terminal in Setúbal (operation phase, year 1 and 2). Portugal.
2013	Tourism	Fauna specialist studies associated to the Environmental Impact Assessment of Vale do Freixo Touristic Development, Portugal. Portugal.
2013	Water Treatment	Water quality control at the waste water system of Águas de Santo André, Portugal. Portugal.
2013	Electric Sector	Ecological Impact Assessment of the Vieira do Minho – Pedralva 1 high tension power line (400kV) and the shift to Vieira do Minho station (400 kV), Portugal.
2013	Animal Production	Environmental Impact Assessment and Environmental Compliance Report of the expansion of a sole fishfarm in Torreira, Aveiro. Portugal.
2013	Tourism	Design of the fauna monitoring and management plans for a touristic development project at Herdade do Pontal in Ria Formosa's Natural Park, Portugal.
2013	Electric Sector	Design of the Action Plan and the Monitoring Programme for a Bonelli eagle's couple occurring in the area of the Armamar-Recarei high tension power line (400kV), Portugal. Portugal.
2013	Electric Sector	Raptor nest searching in the Valpaços - Vila Pouca de Aguiar high tension power line, Portugal (preconstruction phase). Portugal.
2013	Tourism	Ecological section of the environmental compliance report of the Herdade do Mercador touristic development (Mourão, Portugal). Portugal.
2013	Water Treatment	Sampling, physical-chemical analysis and water quality monitoring at Morgavel water treatment plant, Portugal. Portugal.
2013	Electric Sector	Wolf monitoring at the Valpaços-Vila Pouca high tension power line area, Portugal (pre-construction phase). Portugal.
2013	Wind Energy	Bat activity assessment at blade height and ground level at the Escoural Wind Farm (pre-construction phase). Portugal.
2013	Nature Conservation	Ichthyofauna, diatoms and macroinvertebrates monitoring at the Project "River regularization of Rio Grande da Pipa" in Carregado, Portugal. Portugal.
	Wind Energy	Peer-review of the ecology section of the Picos - Vale do Chão Wind Farm, Portugal. Portugal.
2013	Electric Sector	Flora and habitat monitoring at Vieira do Minho 400kV power lines (pre-construction phase), Portugal. Portugal.
2013	Tourism	Scientific advisory for the valuation of the bird resources at the Herdade do Mercador touristic development, Mourão, Portugal. Portugal.
2013	Nature Conservation	Biodiversity assessment at the Coina's River Marshland Local Nature Reserve and Machada National

		Forest, Portugal. Portugal.
2013	Wind Energy	Bird, bat, flora and vegetation monitoring at Mosqueiros II Wind Farm and its expansion area (preconstruction, construction and operation phase). Portugal.
2013	Wind Energy	Bird, bat, flora and vegetation monitoring at Mosqueiros II Wind Farm, Portugal, and its expansion area (pre-construction, construction and operation phase). Portugal.
2013	Water Treatment	Advisory to the Ecological Impact Assessment of water distributions systems in the cities of Saurimo and Ndalatando, Angola
2013	Electric Sector	Ecological Impact Assessment of the high tension power lines in the area of the Alto Tâmega Hydroelectric Power Plants, Portugal. Portugal.
2013	Mining	Ecology section for the environmental impact assessment of the extension of quarry nr. 4735 in Laboeira, Portugal. Portugal.
2013	Industry	Ecological Impact Assessment of a paper industry in Vila Velha de Rodão and Strategic Ecological Assessment for the expansion of the municipality's industrial area, Portugal. Portugal.
2013	Wind Energy	Flora and vegetation (pre-construction) and bird (pre-construction and construction phases) monitoring at Alto dos Forninhos Wind Farm, Portugal. Portugal.
2013	Urban	Ecological Impact Assessment of IKEA's commercial complex in Algarve, Portugal. Portugal.
2013	Wind Energy	Development of the "Guidance on avian post construction monitoring techniques for wind and solar energy facilities with specific reference to Migrating Soaring Birds (MSB) in the Rift Valley/Red Sea Flyway" for BirdLife International
2013	Wind Energy	Bird and bat pre-construction monitoring at Moorreesburg Wind Energy Facility (Western Cape, South Africa). South Africa.
2013	Wind Energy	Bird and bat pre-construction monitoring at Gouda II Wind Energy Facility (Western Cape, South Africa). South Africa.
2013	Wind Energy	Bird and bat pre-construction monitoring at Vredendal Wind Energy Facility (Western Cape, South Africa). South Africa.
2013	Wind Energy	Bird and bat pre-construction monitoring at Blue Wind Energy Facility (Northern Cape, South Africa). South Africa.
2013	Wind Energy	Bird and Bat Pre-construction Monitoring at Moorreesburg Wind Energy Facility (Western Cape). South Africa.
	Wind Energy	Bird and Bat Pre-construction Monitoring at IE Gouda Wind Energy Facility (Western Cape). South Africa.
	Wind Energy	Bird and Bat Pre-construction Monitoring at Vredendal Wind Energy Facility (Western Cape). South Africa.
	Wind Energy	Bird and Bat Pre-construction Monitoring at Stormberg Wind Energy Facility (Eastern Cape). South Africa.
	Wind Energy	Bird and Bat Pre-construction Monitoring at Gunstfontein Wind Energy Facility (Northern Cape). South Africa.
	Wind Energy	Bird and Bat Pre-construction Monitoring at Project Blue Wind Energy Facility (Northern Cape). South Africa.
	Wind Energy	Bird and Bat Pre-construction Monitoring at Moorreesburg Extension Wind Energy Facility (Western Cape). South Africa.
	Wind Energy	Bird and Bat Pre-construction Monitoring at Sere Wind Energy Facility (Western Cape). South Africa.
	Wind Energy	Bird and bat pre-construction monitoring at Vredendal Wind Energy Facility (Western Cape, South Africa). South Africa.
		Ecological Impact Assessment of the Baixo Sabor-Pocinho power line, Portugal. Portugal.
	Wind Energy	Wolf, bats and birds monitoring at Mirandela wind farm, Portugal (pre-construction phase). Portugal.
	Wind Energy	Ecological Impact Assessment of Mirandela Wind Farm, Portugal. Portugal.
	Wind Energy	Bird, bat and flora monitoring at Tocha's Wind Farm, Portugal (pre-construction and construction phase).  Portugal.
	Wind Energy	Bird monitoring at Lagoa Funda Wind Farm, Portugal (operation phase). Portugal.
	Wind Energy	Implementation of an invasive flora species (Acacia sp.) Management Plan at Lousã I Wind Farm (operation phase). Portugal.
	Wind Energy	Bird and flora monitoring at Chão Falcão I Wind Farm, Portugal (operation phase). Portugal.
	Wind Energy	Bird and bat monitoring at Figueira Brava wind farm, Portugal (pre-construction phase). Portugal.
	Wind Energy	Ecological section of the environmental impact assessment at Figueira Brava wind farm, Portugal. Portugal.
	Wind Energy	Bird and flora monitoring (pre-construction, construction and operation phases) and bat monitoring (operation phase) at Lousã II Wind Farm, Portugal, including its expansion area. Portugal.
		Implementation of the Offset and Monitoring Programme focused on black stork at the Macedo de Cavaleiros-Valpaços power line 220 kV (400 kV). Portugal.
	Wind Energy	Ecological Impact Assessment of Maunça's Wind Farm, Portugal. Portugal.
	Water Treatment	Preliminary assessment of the ecological status of the water at the exit of the wastewater system of the Aljustrel Mining Park, Portugal. Portugal.
	Urban	Environmental Impact Assessment of Valley Park's Project - Cartaxo's Business Park, Portugal.
2012	Wind Energy	Bird, including red-billed chough (pre-construction, construction and operation phases), flora and vegetation (construction and operation phase) monitoring at Meroicinha II Wind Farm. Portugal.

2012 Wind Energy

		Bird, including red-billed chough (pre-construction, construction and operation phases), flora and vegetation (construction and operation phase) monitoring at Meroicinha II Wind Farm, Portugal. Portugal.
2012	Agriculture	Zooplankton sampling and assessment in surface freshwater of the Alqueva Irrigation System (EFMA, Portugal): Alfundão, Serpa and Brinches-Enxoé irrigation systems. Portugal.
2012	Mining	Ecological section of the additional information to be included in the Environmental Impact Assessment of the quarry Cimo das Lameiras do Rio, Portugal. Portugal.
2012	Roads	Assessment of the biological status of water under the Water Framework Directive at A43 / IC29 Douro Litoral Highway: Gondomar / Aguiar de Sousa (IC24), Portugal. Portugal.
2012	Electric sector	Ecological Impact Assessment of the power intensification at Salamonde II, Venda Nova III and Frades B substation, Portugal. Portugal.
2012	Wind Energy	Flora, vegetation and bird monitoring at Maunça Wind Farm, Portugal (pre-construction phase). Portugal.
2012	Wind Energy	Bird and bat monitoring at 3 Marcos Wind Farm, Portugal (pre-construction phase). Portugal.
2012	Wind Energy	Ecological constraints analysis and Ecological Impact Assessment at 3 Marcos Wind Farm, Portugal (preconstruction phase). Portugal.
2012	Mining	Ecological section of a scoping proposal for a mining project in the river Douro area, Tabuaço, Portugal. Portugal.
2012	Nature Conservation	Determination of the hydromorphological quality of three streams located in Canedo / Santa Maria da Feira, Portugal. Portugal.
2012	Wind Energy	Implementation of an invasive flora species (Acacia sp.) management plan at Pampilhosa da Serra Wind Farm (operation phase). Portugal.
2012	Wind Energy	Monitoring of a vertical bat roost at Malhanito Wind Farm, Portugal (pre-construction, construction and operation phases). Portugal.
2012	Mining	Design of conservation measures for Unio crassus' emergency and population maintenance plan at the river Sado Basin associated to a mining infrastructure, Portugal. Portugal.
2012	Agriculture	Steppe bird monitoring at Alfundão and Ferreira Valbom irrigation areas inserted in the Alqueva Irrigation System (EFMA, Portugal). Portugal.
2012	Wind Energy	Bird and flora monitoring at Meadas wind farm, Portugal (operation phase). Portugal.
2012	Electric sector	Design of the Offset Programme focused on a Bonelli's eagle pair and assessment of its effectiveness at Portimão-Tunes North / Portimão-Tunes 3 power line (400/150kV) – alternative layout at the crossing of Funcho and Arade Dams, Portugal.
2012	Wind Energy	Implementation of the Management Plan for the temporary lagoons at Lagoa Funda Wind Farm (operation phase - 2012 and 2013). Portugal.
2012	Hydric Energy	Baseline assessment of the current ecological status of the river mussel (Margaritifera margaritifera) population in River Tuela associated to Trutas Dam (Small Hydro), Portugal. Portugal.
2012	Electric Sector	Bird monitoring at the 150 kV power line connecting the Fernão Ferro substation to the 400 kV power line of Palmela - Ribatejo, Portugal. Portugal.
2012	Electric sector	Flora and habitat monitoring at the 400 kV power line of Palmela-Ribatejo in the Fernão Ferro substation, Portugal. Portugal.
	Tourism	Ecological Impact Assessment for the Ota's Driving School & Technology Centre, Portugal. Portugal.
		Ecological Impact Assessment of the high tension power line and its substations between Alfena – Vila do Conde – Vila Fria (Portugal) and Spain (400 kV). Portugal.
	Roads	Ecological section of the Environmental Compliance Report and design of the Mitigation measures for the construction of the main road IC35 - Guilhufe (A4/IP4) / Rans junctions, Portugal. Portugal.
	Industry	Ecological Impact Assessment of a waste incineration unit in the municipality of Chamusca at the Relvão's Eco Park, Portugal. Portugal.
		Transplantation of the endangered flora species Scilla ramburei subsp. beirana prior to the construction of Prados Wind Farm, Portugal. Portugal.
2012	Water Treatment	Water quality monitoring at Santo André beach and Moinhos stream, Portugal. Portugal.
2012	Hydric Energy	Ecological Impact Assessment of the Calheta and Pico da Urze's Dam, Portugal (hydroelectric power station). Portugal.
2012	Wind Energy	Bat pre-construction monitoring at Hopefield Wind Energy Facility (Western Cape, South Africa). South Africa.
2012	Wind Energy	Bird and bat pre-construction monitoring at Noblesfontein Wind Energy Facility (Northern Cape, South Africa). South Africa.
2012	Wind Energy	Bat pre-construction monitoring at West Coast I Wind Energy Facility (Western Cape, South Africa). South Africa.
2012	Wind Energy	Bat pre-construction monitoring at Rheboksfontein Wind Energy Facility (Western Cape, South Africa). South Africa.
2012	Wind Energy	Bird and bat pre-construction monitoring at Tsitsikamma Wind Energy Facility (Eastern Cape, South Africa). South Africa.
2012	Wind Energy	Bird and bat pre-construction monitoring at Tiqua Wind Energy Facility (Western Cape, South Africa). South Africa.
2012	Wind Energy	Bat pre-construction monitoring at Dorper Wind Energy Facility (Eastern Cape, South Africa). South Africa.

2012	Wind Energy	Scoping and bat ecological assessment for the Zen Wind Energy Facility project (Western Cape, South Africa). South Africa.
2012	Wind Energy	Bird and bat pre-construction Monitoring at Kangnas Wind Energy Facility (Northern Cape, South Africa). South Africa.
2012	Wind Energy	Bird and bat pre-construction monitoring at Gouda Wind Energy Facility (Western Cape, South Africa). South Africa.
2012	Wind Energy	Bird and bat pre-construction monitoring at Springfontein Wind Energy Facility (Free State, South Africa). South Africa.
2012	Wind Energy	Peer-review of the bird pre-contruction monitoring reports for the Hluhluwe Wind Energy Facility project (KwaZulu Natal, South Africa). South Africa.
2012	Wind Energy	Bird and bat pre-construction monitoring at Swellendam Wind Energy Facility (Western Cape, South Africa). South Africa.
2012	Wind Energy	Peer-review of the bird pre-contruction monitoring reports for the Richards Bay Wind Energy Facility project (KwaZulu Natal, South Africa). South Africa.
2012	Wind Energy	Bat pre-construction monitoring program at Hopefield Wind Energy Facility (Western Cape, South Africa). South Africa.
2012	Wind Energy	Environmental Impact Assessment (Avifauna specialist environmental assessment) of the proposed Hopefield Wind Energy Facility, Western Cape, South Africa. South Africa.
2012	Wind Energy	Bird and bat pre-construction monitoring at Noblesfontein Wind Energy Facility (Northern Cape, South Africa). South Africa.
2012	Wind Energy	Bat pre-construction monitoring program at West Coast I Wind Energy Facility (Western Cape, South Africa). South Africa.
2012	Wind Energy	Bat pre-construction monitoring program at Rheboksfontein Wind Energy Facility (Western Cape, South Africa). South Africa.
2012	Wind Energy	Bird and bat pre-construction monitoring program at Tsitsikamma Wind Energy Facility (Eastern Cape, South Africa). South Africa.
2012	Wind Energy	Bird and bat pre-construction monitoring program of the proposed Tiqua/EXXARO Wind Energy Facility (Western Cape, South Africa). South Africa.
2012	Wind Energy	Bat pre-construction monitoring program at Dorper Wind Energy Facility (Eastern Cape, South Africa). South Africa.
2012	Wind Energy	Scoping and bat ecological assessment for the Zen Wind Energy Facility project (Western Cape, South Africa). South Africa.
2012	Wind Energy	Bird and bat pre-construction monitoring program of the proposed Zen Wind Energy Facility, Western Cape Province, South Africa. South Africa.
2012	Wind Energy	Bird and bat pre-construction Monitoring program at Kangnas Wind Energy Facility (Northern Cape, South Africa). South Africa.
2012	Wind Energy	Bird and bat pre-construction monitoring at Gouda Wind Energy Facility (Western Cape, South Africa). South Africa.
2012	Wind Energy	Bird and bat pre-construction monitoring at Springfontein Wind Energy Facility (Free State, South Africa). South Africa.
2012	Wind Energy	Peer-review of the bird pre-contruction monitoring reports for the Hluhluwe Wind Energy Facility project (KwaZulu Natal, South Africa). South Africa.
2012	Wind Energy	Bat Specialist Environmental Impact Assessment of the proposed Richards bay Wind Energy Facility, Kuazulu Natal, South Africa. South Africa.
2012	Wind Energy	Environmental Impact Assessment (Avifauna specialist environmental assessment) of the Goereesoe (Swellandam) Wind Energy Facility, Western Cape, South Africa. South Africa.
2012	Wind Energy	Bird and bat pre-construction monitoring at Swellendam Wind Energy Facility (Western Cape, South Africa). South Africa.
2012	Wind Energy	Bird monitoring program of the proposed Goereesoe (Swellandam) Wind Energy Facility, Western Cape Province, South Africa.
2012	Wind Energy	Bat monitoring program of the proposed Goereesoe (Swellandam) Wind Energy Facility, Western Cape Province, South Africa. South Africa.
2012	Wind Energy	Bat monitoring program of the proposed Richards Bay Wind Energy Facility, KwaZulu-Natal Province, South Africa. South Africa.
2012	Wind Energy	Peer-review of the bird pre-contruction monitoring reports for the Richards Bay Wind Energy Facility project (KwaZulu Natal, South Africa). South Africa.
2011	Training	Course on Environmental Assessment of Projects, Plans and Programmes under the Natura 2000 Network (18th November 2011, Lisbon, Portugal). Portugal.
2011	Agriculture	Terrestrial flying vertebrates carcass searches along the Alvito-Pisão water channel inserted in the Alqueva Irrigation System (EFMA, Portugal) using wildlife research dogs. Portugal.
2011	Wind Energy	Bonelli's eagle monitoring at Serra do Mú Wind Farm, Portugal (pre-construction, construction and operation phase). Portugal.
	Hydric Energy Nature	Ecological Impact Assessment of Carvão-Ribeira's Dam, Portugal (hydroelectric power station). Portugal.  Ecological section of the project design for the protection of cliffs and dune systems under the Polis Litoral
	Conservation	Sudoeste Program, Portugal. Portugal.

2011	Wind Energy	Bird including red-billed cough, and flora monitoring at Candeeiros Wind Farm, Portugal (operation phase 2005-2015). Portugal.
2011	Nature Conservation	Biological analysis of sediments in Ria de Aveiro and Pateira de Fermentelos, Portugal. Portugal.
2011	Electric sector	Ecological Impact Assessment of the opening of the high tension power line Valdigem - Vermoim and its substations between Alfena - Vila do Conde - Vila Fria (Portugal) and Spain (400 kV). Portugal.
2011	Electric sector	Design and implementation of an Offset Programme focused on raptors, black stork and red-billed chough at the National Park of International Douro River and Távora's River valley, Portugal, for the Environmental Impact Assessment of the power line Lagoaça – Aldeadávila 1 (400kV), Pocinho – Aldeadávila 1/2 (220kV) and Armamar – Lagoaça (400kV). Portugal.
2011	Wind Energy	Design of an invasive flora species' Management Plan at Picos – Vale do Chão Wind Farm, Portugal. Portugal.
2011	Hydric Energy	Ecological section of the Environmental Compliance Report of the Girabolhos Dam, Portugal (hydroelectric power station). Portugal.
2011	Electric sector	Design and implementation of an Offset Programme focused on raptors, black stork and red-billed chough at the National Park of International Douro River and Távora's River valley, Portugal, for the Environmental Impact Assessment of the power line Lagoaça – Aldeadávila 1 (400kV), Pocinho – Aldeadávila 1/2 (220kV) and Armamar – Lagoaça (400kV). Portugal.
2011	Electric sector	Design and implementation of the bird monitoring plan at six 220 kV and 400 kV power lines at Lagoaça-Macedo de Cavaleiros crossing the International Douro Natural Park, Portugal. Portugal.
2011	Wind Energy	Bird, bat and flora monitoring at Chão Falcão II Wind Farm, Portugal (construction and operation phase). Portugal.
2011	Wind Energy	Bird, bat and flora monitoring at Chão Falcão II Wind Farm, Portugal (pre-construction, construction and operation phases). Portugal.
2011	Wind Energy	Bat monitoring at Serra de Bornes Wind Farm, Portugal (operation phase). Portugal.
2011	Wind Energy	Invasive species monitoring at Picos - Vale do Chão Wind Farm and its power line (60 kV) connecting to the Lousã II - Penela power line, Portugal. Portugal.
2011	Wind Energy	Bird and bat monitoring at Malhanito's Wind Farm (pre-construction, construction and operation phases). Portugal.
2011	Wind Energy	Bird and bat monitoring at Malhanito's Wind Farm, Portugal (pre-construction, construction and operation phases). Portugal.
2011	Wind Energy	Design and implementation of the mitigation measures program directed at the Bonelli eagle at the Malhanito wind farm, Portugal. Portugal.
2011	Mining	Environmental Impact Accessment of a guarry located between Dé de Dedroire and Vale de Trave
2011	Tilling	Environmental Impact Assessment of a quarry located between Pé da Pedreira and Vale da Trave (Alcanede, Santarém, Portugal). Portugal.
2011	Electric sector	
2011	Electric sector	(Alcanede, Santarém, Portugal). Portugal.  Bird monitoring at the Estremoz-Alandroal power line (400 kV) – complementary monitoring of steppe birds (pre-construction phase), Portugal. Portugal.  Ecological Impact Assessment for the widening project (dual two-lanes to dual three-lanes) and resurfacing of the A3 Highway between Santo Tirso and Famalicão, Portugal. Portugal.
<ul><li>2011</li><li>2011</li><li>2011</li></ul>	Electric sector Roads Electric sector	(Alcanede, Santarém, Portugal). Portugal.  Bird monitoring at the Estremoz-Alandroal power line (400 kV) – complementary monitoring of steppe birds (pre-construction phase), Portugal. Portugal.  Ecological Impact Assessment for the widening project (dual two-lanes to dual three-lanes) and resurfacing of the A3 Highway between Santo Tirso and Famalicão, Portugal. Portugal.  Ecological Impact Assessment of the replacement project of the power line's section 3 at Armamar – Recarei (400 kV), Portugal. Portugal.
2011 2011 2011 2011	Electric sector Roads Electric sector Land Management	(Alcanede, Santarém, Portugal). Portugal.  Bird monitoring at the Estremoz-Alandroal power line (400 kV) – complementary monitoring of steppe birds (pre-construction phase), Portugal. Portugal.  Ecological Impact Assessment for the widening project (dual two-lanes to dual three-lanes) and resurfacing of the A3 Highway between Santo Tirso and Famalicão, Portugal. Portugal.  Ecological Impact Assessment of the replacement project of the power line's section 3 at Armamar – Recarei (400 kV), Portugal. Portugal.  Strategic Ecological Assessment of the Management Plans for the hydrographical bays integrated in the hydrographical regions 6 (Sado/Mira), 7 (Guadiana) and 8 (Ribeiras do Algarve), Portugal. Portugal.
2011 2011 2011 2011 2011	Electric sector Roads Electric sector Land Management Wind Energy	(Alcanede, Santarém, Portugal). Portugal.  Bird monitoring at the Estremoz-Alandroal power line (400 kV) – complementary monitoring of steppe birds (pre-construction phase), Portugal. Portugal.  Ecological Impact Assessment for the widening project (dual two-lanes to dual three-lanes) and resurfacing of the A3 Highway between Santo Tirso and Famalicão, Portugal. Portugal.  Ecological Impact Assessment of the replacement project of the power line's section 3 at Armamar – Recarei (400 kV), Portugal. Portugal.  Strategic Ecological Assessment of the Management Plans for the hydrographical bays integrated in the hydrographical regions 6 (Sado/Mira), 7 (Guadiana) and 8 (Ribeiras do Algarve), Portugal. Portugal.  Ecological technical note on the over-equipment at Freita I Wind Farm, Portugal. Portugal.
2011 2011 2011 2011 2011 2011	Electric sector Roads Electric sector Land Management Wind Energy Hydric Energy	(Alcanede, Santarém, Portugal). Portugal.  Bird monitoring at the Estremoz-Alandroal power line (400 kV) – complementary monitoring of steppe birds (pre-construction phase), Portugal. Portugal.  Ecological Impact Assessment for the widening project (dual two-lanes to dual three-lanes) and resurfacing of the A3 Highway between Santo Tirso and Famalicão, Portugal. Portugal.  Ecological Impact Assessment of the replacement project of the power line's section 3 at Armamar – Recarei (400 kV), Portugal. Portugal.  Strategic Ecological Assessment of the Management Plans for the hydrographical bays integrated in the hydrographical regions 6 (Sado/Mira), 7 (Guadiana) and 8 (Ribeiras do Algarve), Portugal. Portugal.  Ecological technical note on the over-equipment at Freita I Wind Farm, Portugal. Portugal.  Fauna monitoring at Foz Tua Dam (hydroelectric power station) - pre-construction and construction phase. Portugal.
2011 2011 2011 2011 2011 2011 2011	Electric sector Roads Electric sector Land Management Wind Energy Hydric Energy Hydric Energy	(Alcanede, Santarém, Portugal). Portugal.  Bird monitoring at the Estremoz-Alandroal power line (400 kV) – complementary monitoring of steppe birds (pre-construction phase), Portugal. Portugal.  Ecological Impact Assessment for the widening project (dual two-lanes to dual three-lanes) and resurfacing of the A3 Highway between Santo Tirso and Famalicão, Portugal. Portugal.  Ecological Impact Assessment of the replacement project of the power line's section 3 at Armamar – Recarei (400 kV), Portugal. Portugal.  Strategic Ecological Assessment of the Management Plans for the hydrographical bays integrated in the hydrographical regions 6 (Sado/Mira), 7 (Guadiana) and 8 (Ribeiras do Algarve), Portugal. Portugal.  Ecological technical note on the over-equipment at Freita I Wind Farm, Portugal. Portugal.  Fauna monitoring at Foz Tua Dam (hydroelectric power station) - pre-construction and construction phase. Portugal.  Fauna monitoring at Foz Tua Dam (hydroelectric power station) - pre-construction and construction phase. Portugal.
2011 2011 2011 2011 2011 2011 2011 2011	Electric sector Roads Electric sector Land Management Wind Energy Hydric Energy Hydric Energy Agriculture	(Alcanede, Santarém, Portugal). Portugal.  Bird monitoring at the Estremoz-Alandroal power line (400 kV) – complementary monitoring of steppe birds (pre-construction phase), Portugal. Portugal.  Ecological Impact Assessment for the widening project (dual two-lanes to dual three-lanes) and resurfacing of the A3 Highway between Santo Tirso and Famalicão, Portugal. Portugal.  Ecological Impact Assessment of the replacement project of the power line's section 3 at Armamar – Recarei (400 kV), Portugal. Portugal.  Strategic Ecological Assessment of the Management Plans for the hydrographical bays integrated in the hydrographical regions 6 (Sado/Mira), 7 (Guadiana) and 8 (Ribeiras do Algarve), Portugal. Portugal.  Ecological technical note on the over-equipment at Freita I Wind Farm, Portugal. Portugal.  Fauna monitoring at Foz Tua Dam (hydroelectric power station) – pre-construction and construction phase. Portugal.  Fauna monitoring at Foz Tua Dam (hydroelectric power station) – pre-construction and construction phase. Portugal.  Survey of the endangered flora species Linaria ricardoi during the construction of the water channel Pisão-Beja and Pisão-Roxo associated to the Alqueva Irrigation System (EFMA, Portugal). Portugal.
2011 2011 2011 2011 2011 2011 2011 2011	Electric sector Roads Electric sector Land Management Wind Energy Hydric Energy Hydric Energy Agriculture	(Alcanede, Santarém, Portugal). Portugal.  Bird monitoring at the Estremoz-Alandroal power line (400 kV) – complementary monitoring of steppe birds (pre-construction phase), Portugal. Portugal.  Ecological Impact Assessment for the widening project (dual two-lanes to dual three-lanes) and resurfacing of the A3 Highway between Santo Tirso and Famalicão, Portugal. Portugal.  Ecological Impact Assessment of the replacement project of the power line's section 3 at Armamar – Recarei (400 kV), Portugal. Portugal.  Strategic Ecological Assessment of the Management Plans for the hydrographical bays integrated in the hydrographical regions 6 (Sado/Mira), 7 (Guadiana) and 8 (Ribeiras do Algarve), Portugal. Portugal.  Ecological technical note on the over-equipment at Freita I Wind Farm, Portugal. Portugal.  Fauna monitoring at Foz Tua Dam (hydroelectric power station) – pre-construction and construction phase. Portugal.  Fauna monitoring at Foz Tua Dam (hydroelectric power station) – pre-construction and construction phase. Portugal.  Survey of the endangered flora species Linaria ricardoi during the construction of the water channel
2011 2011 2011 2011 2011 2011 2011 2011	Electric sector Roads Electric sector Land Management Wind Energy Hydric Energy Hydric Energy Agriculture	(Alcanede, Santarém, Portugal). Portugal.  Bird monitoring at the Estremoz-Alandroal power line (400 kV) – complementary monitoring of steppe birds (pre-construction phase), Portugal. Portugal.  Ecological Impact Assessment for the widening project (dual two-lanes to dual three-lanes) and resurfacing of the A3 Highway between Santo Tirso and Famalicão, Portugal. Portugal.  Ecological Impact Assessment of the replacement project of the power line's section 3 at Armamar – Recarei (400 kV), Portugal. Portugal.  Strategic Ecological Assessment of the Management Plans for the hydrographical bays integrated in the hydrographical regions 6 (Sado/Mira), 7 (Guadiana) and 8 (Ribeiras do Algarve), Portugal. Portugal.  Ecological technical note on the over-equipment at Freita I Wind Farm, Portugal. Portugal.  Fauna monitoring at Foz Tua Dam (hydroelectric power station) – pre-construction and construction phase. Portugal.  Fauna monitoring at Foz Tua Dam (hydroelectric power station) – pre-construction and construction phase. Portugal.  Survey of the endangered flora species Linaria ricardoi during the construction of the water channel Pisão-Beja and Pisão-Roxo associated to the Alqueva Irrigation System (EFMA, Portugal). Portugal.  Bat and vegetation monitoring at the power reinforcement of Salamonde II Dam (hydroelectric power
2011 2011 2011 2011 2011 2011 2011 2011	Electric sector Roads Electric sector Land Management Wind Energy Hydric Energy Hydric Energy Agriculture Hydric Energy Offshore	(Alcanede, Santarém, Portugal). Portugal.  Bird monitoring at the Estremoz-Alandroal power line (400 kV) – complementary monitoring of steppe birds (pre-construction phase), Portugal. Portugal.  Ecological Impact Assessment for the widening project (dual two-lanes to dual three-lanes) and resurfacing of the A3 Highway between Santo Tirso and Famalicão, Portugal. Portugal.  Ecological Impact Assessment of the replacement project of the power line's section 3 at Armamar – Recarei (400 kV), Portugal. Portugal.  Strategic Ecological Assessment of the Management Plans for the hydrographical bays integrated in the hydrographical regions 6 (Sado/Mira), 7 (Guadiana) and 8 (Ribeiras do Algarve), Portugal. Portugal.  Ecological technical note on the over-equipment at Freita I Wind Farm, Portugal. Portugal.  Fauna monitoring at Foz Tua Dam (hydroelectric power station) - pre-construction and construction phase. Portugal.  Fauna monitoring at Foz Tua Dam (hydroelectric power station) - pre-construction and construction phase. Portugal.  Survey of the endangered flora species Linaria ricardoi during the construction of the water channel Pisão-Beja and Pisão-Roxo associated to the Alqueva Irrigation System (EFMA, Portugal). Portugal.  Bat and vegetation monitoring at the power reinforcement of Salamonde II Dam (hydroelectric power station - pre-construction phase). Portugal.  Marine birds and mammals monitoring in the Portuguese pilot zone for testing offshore renewable
2011 2011 2011 2011 2011 2011 2011 2011	Electric sector Roads Electric sector Land Management Wind Energy Hydric Energy Agriculture Hydric Energy Offshore Energy	(Alcanede, Santarém, Portugal). Portugal.  Bird monitoring at the Estremoz-Alandroal power line (400 kV) – complementary monitoring of steppe birds (pre-construction phase), Portugal. Portugal.  Ecological Impact Assessment for the widening project (dual two-lanes to dual three-lanes) and resurfacing of the A3 Highway between Santo Tirso and Famalicão, Portugal. Portugal.  Ecological Impact Assessment of the replacement project of the power line's section 3 at Armamar – Recarei (400 kV), Portugal. Portugal.  Strategic Ecological Assessment of the Management Plans for the hydrographical bays integrated in the hydrographical regions 6 (Sado/Mira), 7 (Guadiana) and 8 (Ribeiras do Algarve), Portugal. Portugal.  Ecological technical note on the over-equipment at Freita I Wind Farm, Portugal. Portugal.  Fauna monitoring at Foz Tua Dam (hydroelectric power station) - pre-construction and construction phase. Portugal.  Fauna monitoring at Foz Tua Dam (hydroelectric power station) - pre-construction and construction phase. Portugal.  Survey of the endangered flora species Linaria ricardoi during the construction of the water channel Pisão-Beja and Pisão-Roxo associated to the Alqueva Irrigation System (EFMA, Portugal). Portugal.  Bat and vegetation monitoring at the power reinforcement of Salamonde II Dam (hydroelectric power station - pre-construction phase). Portugal.  Marine birds and mammals monitoring in the Portuguese pilot zone for testing offshore renewable energies. Portugal.
2011 2011 2011 2011 2011 2011 2011 2011	Electric sector Roads Electric sector Land Management Wind Energy Hydric Energy Hydric Energy Agriculture Hydric Energy Offshore Energy Roads	(Alcanede, Santarém, Portugal). Portugal.  Bird monitoring at the Estremoz-Alandroal power line (400 kV) – complementary monitoring of steppe birds (pre-construction phase), Portugal. Portugal.  Ecological Impact Assessment for the widening project (dual two-lanes to dual three-lanes) and resurfacing of the A3 Highway between Santo Tirso and Famalicão, Portugal. Portugal.  Ecological Impact Assessment of the replacement project of the power line's section 3 at Armamar – Recarei (400 kV), Portugal. Portugal.  Strategic Ecological Assessment of the Management Plans for the hydrographical bays integrated in the hydrographical regions 6 (Sado/Mira), 7 (Guadiana) and 8 (Ribeiras do Algarve), Portugal. Portugal.  Ecological technical note on the over-equipment at Freita I Wind Farm, Portugal. Portugal.  Fauna monitoring at Foz Tua Dam (hydroelectric power station) – pre-construction and construction phase. Portugal.  Fauna monitoring at Foz Tua Dam (hydroelectric power station) – pre-construction and construction phase. Portugal.  Survey of the endangered flora species Linaria ricardoi during the construction of the water channel Pisão-Beja and Pisão-Roxo associated to the Alqueva Irrigation System (EFMA, Portugal). Portugal.  Bat and vegetation monitoring at the power reinforcement of Salamonde II Dam (hydroelectric power station – pre-construction phase). Portugal.  Marine birds and mammals monitoring in the Portuguese pilot zone for testing offshore renewable energies. Portugal.  Amphibian monitoring associated to the construction of a roundabout in the municipality of Olhão, Portugal. Portugal.
2011 2011 2011 2011 2011 2011 2011 2011	Electric sector Roads Electric sector Land Management Wind Energy Hydric Energy Agriculture Hydric Energy Offshore Energy Roads Roads Wind Energy	(Alcanede, Santarém, Portugal). Portugal.  Bird monitoring at the Estremoz-Alandroal power line (400 kV) – complementary monitoring of steppe birds (pre-construction phase), Portugal. Portugal.  Ecological Impact Assessment for the widening project (dual two-lanes to dual three-lanes) and resurfacing of the A3 Highway between Santo Tirso and Famalicão, Portugal. Portugal.  Ecological Impact Assessment of the replacement project of the power line's section 3 at Armamar – Recarei (400 kV), Portugal. Portugal.  Strategic Ecological Assessment of the Management Plans for the hydrographical bays integrated in the hydrographical regions 6 (Sado/Mira), 7 (Guadiana) and 8 (Ribeiras do Algarve), Portugal. Portugal.  Ecological technical note on the over-equipment at Freita I Wind Farm, Portugal. Portugal.  Fauna monitoring at Foz Tua Dam (hydroelectric power station) - pre-construction and construction phase. Portugal.  Fauna monitoring at Foz Tua Dam (hydroelectric power station) - pre-construction and construction phase. Portugal.  Survey of the endangered flora species Linaria ricardoi during the construction of the water channel Pisão-Beja and Pisão-Roxo associated to the Alqueva Irrigation System (EFMA, Portugal). Portugal.  Bat and vegetation monitoring at the power reinforcement of Salamonde II Dam (hydroelectric power station - pre-construction phase). Portugal.  Marine birds and mammals monitoring in the Portuguese pilot zone for testing offshore renewable energies. Portugal.  Amphibian monitoring associated to the construction of a roundabout in the municipality of Olhão, Portugal. Portugal.  Design of an ecological technical note to replace a viaduct for a new layout with a landfill, extending an existing hydraulic passage, in section 6 of the A4 Highway, Transmontana Sublease, Portugal. Portugal.
2011 2011 2011 2011 2011 2011 2011 2011	Electric sector Roads Electric sector Land Management Wind Energy Hydric Energy Agriculture Hydric Energy Coffshore Energy Roads Roads Wind Energy Hydric Energy	(Alcanede, Santarém, Portugal). Portugal.  Bird monitoring at the Estremoz-Alandroal power line (400 kV) – complementary monitoring of steppe birds (pre-construction phase), Portugal. Portugal.  Ecological Impact Assessment for the widening project (dual two-lanes to dual three-lanes) and resurfacing of the A3 Highway between Santo Tirso and Famalicão, Portugal. Portugal.  Ecological Impact Assessment of the replacement project of the power line's section 3 at Armamar – Recarei (400 kV), Portugal. Portugal.  Strategic Ecological Assessment of the Management Plans for the hydrographical bays integrated in the hydrographical regions 6 (Sado/Mira), 7 (Guadiana) and 8 (Ribeiras do Algarve), Portugal. Portugal.  Ecological technical note on the over-equipment at Freita I Wind Farm, Portugal. Portugal.  Fauna monitoring at Foz Tua Dam (hydroelectric power station) - pre-construction and construction phase. Portugal.  Fauna monitoring at Foz Tua Dam (hydroelectric power station) - pre-construction and construction phase. Portugal.  Survey of the endangered flora species Linaria ricardoi during the construction of the water channel Pisão-Beja and Pisão-Roxo associated to the Alqueva Irrigation System (EFMA, Portugal). Portugal.  Bat and vegetation monitoring at the power reinforcement of Salamonde II Dam (hydroelectric power station - pre-construction phase). Portugal.  Marine birds and mammals monitoring in the Portuguese pilot zone for testing offshore renewable energies. Portugal.  Amphibian monitoring associated to the construction of a roundabout in the municipality of Olhão, Portugal. Portugal.  Design of an ecological technical note to replace a viaduct for a new layout with a landfill, extending an existing hydraulic passage, in section 6 of the A4 Highway, Transmontana Sublease, Portugal. Portugal.  Wolf monitoring at Alto do Marco and Meroicinha II wind farms, Portugal (construction and operation phase). Portugal.

		(change of tension from 220kV to 400kV). Portugal.
2011	Wind Energy	Monitoring of the dune system's dynamics at Tocha's Wind Farm, Portugal (pre-construction, construction and operation phases). Portugal.
2011	Roads	Advisory on the technical decision about the Strategic Environmental Assessment of the National Road Network in Douro Sul, IC26 – Lamego/Trancoso (Portugal): the case for the Iberian wolf. Portugal.
2011	Roads	Ecological Impact Assessment of the construction project of the national road EN 109 between Espinho (km 18+400), the Municipality of Ovar (km 40+200) and EN 109 – alternative to Macedo, Portugal. Portugal.
2011	Electric sector	Ecological constraints analysis and Ecological Impact Assessment of the high tension power lines construction project between Frades B and Pedralva, Portugal. Portugal.
2011	Roads	Revaluation of the mitigation measures proposed for the widening of the A28 Highway between Freixieiro and Póvoa do Varzim, Portugal. Portugal.
2011	Urban	Ecological section of the Environmental Compliance Report of Suldouro's new landfill, Portugal. Portugal.
2011	Wind Energy	Ecological Impact Assessment of the 3rd alternative to Cercal Wind Farm's power line, Portugal. Portugal.
2011	Hydric Energy	Ecological Impact Assessment of the medium tension power lines in the area of the Alto Tâmega Dams, Portugal (hydroelectric power stations). Portugal.
	Nature Conservation	Advisory on the ecological section of Ria Formosa's Mobility Plan. Portugal.
2011	Industry	Ecological Impact Assessment of the Font Salem Factory expansion, Portugal. Portugal.
2011	Land management	Design of the Biodiversity Action Plan and design of an Integrated Linear System for the City Parks in the municipality of Almada, Portugal. Portugal.
2011	Wind Energy	Bird (pre-construction, construction and operation phases) and flora and vegetation (operation phase) monitoring at Gardunha Wind Farm, Portugal. Portugal.
2011	Agriculture	Steppe bird monitoring at the south and west sections of the Ardila irrigation subsystem inserted in the Alqueva Irrigation System (EFMA, Portugal). Portugal.
2011	Wind Energy	Ecological Impact Assessment of Santiago do Escoural Wind Farm, Portugal. Portugal.
2010	Roads	Ecological clerk of works during the construction of the A4 Highway, Transmontana Sublease, crossing the Natura 2000 Sites "Serra do Alvão" and "Samil", Portugal. Portugal.
2010	Wind Energy	Bird monitoring at Picos - Vale do Chão Wind Farm, Portugal (pre-construction phase). Portugal.
2010	Wind Energy	Bird, bat and flora monitoring at Prados Wind Farm (pre-construction, construction and operation phases). Portugal.
2010	Wind Energy	Bird monitoring (operation phase) and flora and vegetation (pre-construction and operation phase) monitoring at Pampilhosa da Serra Wind Farm, Portugal. Portugal.
2010	Wind Energy	Iberian wolf monitoring at Serra de Bornes Wind Farm, Portugal (operation phase). Portugal.
2010	Electric sector	Bird monitoring at Castelo Branco - Ferro $\frac{1}{2}$ power line and shift to the Fatela sub-station (220 kV), Portugal. Portugal.
2010	Electric Sector	Bird monitoring at Valdigem - Vermoim $4/5$ power line - between the Valdigem sub-station and pole $n.158$ of the LVGVm (220 kV), Portugal.
	Nature Conservation	Steppe bird monitoring at the Integrated Territorial Intervention area of Castro Verde, Portugal. Portugal.
	Roads	Flora and vegetation monitoring in the Litoral Oeste Highway Sublease, from the EN242 alternative sector to Nazaré, Portugal. Portugal.
2010	Roads	Fauna monitoring at the main road IP2's, Sector 4, between Longrovia and Trancoso, Portugal (construction phase). Portugal.
2010	Roads	Ecological Impact Assessment of the connection between the main road IC21 at the Coina junction to Sesimbra, Portugal.
2010	Roads	Ecological section of the Environmental Compliance Report of the national road N249-4 execution project between the A5's Highway junction and Abrunheira, Portugal. Portugal.
2010	Roads	Ecological Impact Assessment of the preliminary study for the main road IP4's connection between Vinhais and Bragança, Portugal. Portugal.
2010	Roads	Ecological Assessment of the bridges rehabilitation project in Oeste, Alentejo, Sorraia River and main road IC8's (km 85+130) hydraulic passage, Portugal. Portugal.
2010	Tourism	Ecological section for the Herdade dos Despovoados Land Management Plan, Portugal. Portugal.
2010	Roads	Ecological Impact Assessment of the main road IP2 between Junqueira and Pocinho, Portugal. Portugal.
2010	Tourism	Ecological Impact Assessment of the infrastructures associated to the Touristic Development of Herdade do Mercador, Alqueva, Portugal. Portugal.
2010	Wind Energy	Rare, endemic, localized and threatened flora species monitoring at Picos - Vale do Chão Wind Farm, Portugal, and design of a flora and vegetation monitoring programme to be included in the project's Environmental Compliance Report. Portugal.
2010	Hydric Energy	Assessment of the biological status of water under the Water Framework Directive at Alvito's Dam, Portugal (hydroelectric power station) - pre-construction phase. Portugal.
2010	Land Management	Ecological section of the revision of Loulé's Land Management Plan, Portugal. Portugal.
2010	_	Strategic Ecological Assessment of the Polis Sudoeste Programme, Portugal. Portugal.

2010	Land	Terrestrial ecological section of the Tagus Estuary Management Plan, Portugal. Portugal.
	Management	
2010	Management	Strategic Ecological Assessment of Bacelo's urban detailed plan in Quinta do Anjo, Palmela, Portugal. Portugal.
2010	Wind Energy	Flora and vegetation monitoring at Serra de Bornes wind farm, Portugal (pre-construction and operation phase). Portugal.
2010	Animal Production	Ecological Impact Assessment of the aviaries in Vale Longo and Cabral, Portugal. Portugal.
2010	Wind Energy	Ecological Impact Assessment of Cercal's Wind Farm, Portugal. Portugal.
2010	Electric sector	Ecological Impact Assessment of the very high tension power line at Tâmega's cascade, Portugal. Portugal.
2010	Hydric Energy	Ecological Impact Assessment of Salamonde Dam's, Portugal (hydroelectric power station) complementary flood discharger. Portugal.
2010	Hydric Energy	Ecological Impact Assessment of Calheta's Dam, Portugal (hydroelectric power station), Portugal. Portugal.
2010	Hydric Energy	Ecological section of the Environmental Compliance Report of the Alvito's Dam, Portugal (hydroelectric power station). Portugal.
2010	Hydric Energy	Assessment of the ecological status of the water at Trutas' Dam, Portugal (small-hydro) under the Water Framework Directive (operation phase). Portugal.
2010	Land Management	Ecological section of the Polis Litoral Ria de Aveiro, Portugal, Programme: study on economical activities and its dynamics. Portugal.
2010	Wind Energy	Habitat, Narcissus asturiensis and Armeria humillis (protected flora species) mapping at Meroicinha II Wind Farm, Portugal. Portugal.
2010	Wind Energy	Bird, flora and vegetation monitoring at São Macário II Wind Farm, Portugal (construction phase). Portugal.
2010	Roads	Ecological Impact Assessment for the widening of the A28 Highway between Freixieiro and Póvoa do Varzim, Portugal. Portugal.
2010	Agriculture	Scientific advisory to the project "Exploration of agroforesty systems on the left bank of the Guadiana River (Portugal) – a strategy for the sustainability of rural areas". Portugal.
2010	Electric sector	Flora and vegetation monitoring at Palmela - Ribatejo power line (400kV), Portugal (pre-construction and construction phases). Portugal.
2010		Ecological section of the Land Planning Project for the hydrographical regions of Lagoas Branca, Negra, Funda, Comprida, Rasa, Lomba e Patos, in Flores island, Azores, Portugal. Portugal.
2010	Maritime	Benthic macroinvertebrates monitoring at the turning basin of Alcântara's container port terminal, Portugal. Portugal.
2010	Roads	Fauna and flora monitoring at the main road IC9 - Alburitel / Carregueiros junction / Tomar (IC3), Portugal (pre-construction phase). Portugal.
2010	Airports	Peer-review and advisory on the study of bird movements in the New Lisbon Airport construction area, Portugal. Portugal.
2010	Roads	Ecological Impact Assessment and Environmental Compliance report of the alternative road to Capelas on the island of St. Miguel, Azores, Portugal. Portugal.
2010	Nature Conservation	Macroinvertebrate surveying at Lagoa da Palmeira (Tagus Estuary, Portugal), to determine the ecological status of the area and design of its decontamination plan. Portugal.
	Tourism	Ecological Impact Assessment in marine environment for Albufeira's sea boulevard, Portugal. Portugal.
2010	Land Management	Advisory for the integration of Natura 2000 guidelines into the revision of the municipality of Setubal's Land Management Plan. Portugal.
2010	Roads	Flora and vegetation monitoring at the new bridge crossing river Lima's at Jolda's junction (construction phase), Portugal. Portugal.
2010	Roads	Water quality monitoring during the pre-construction and construction phases of the Baixo Alentejo Highway, Portugal. Portugal.
2010	Tourism	Scoping phase of the Ecological Impact Assessment of a touristic development centre to be built at Herdade do Pontal in Ria Formosa's Natural Park, Portugal. Portugal.
2010	Agriculture	Biological and hydromorphological sections of the assessment of the ecological status of the Alqueva Irrigation System primary network (EFMA, Portugal). Portugal.
2010	Tourism	Execution of the project for the conservation and valuing of cultural tourism for the Iberian Wolf in the municipality of Vila Pouca de Aguiar, Portugal. Portugal.
2010	Agriculture	Design of the biodiversity monitoring programmes to be included in the Environmental Impact Assessment of Salamonde's Dam, Portugal (hydroelectric power station). Portugal.
2009	Hydric Energy	Ecological Impact Assessment of the Alvito's Dam (hydroelectric power station) and the 400kV high power line between the Dam and the Falagueira substation, Portugal. Portugal.
2009	Electric sector	Ecological Impact Assessment of the Ermesinde's substation rehabilitation, Portugal. Portugal.
2009	Urban	Strategic Ecological Assessment of the Urban Development Plan of Carvalhal and Lagoas, Portugal. Portugal.
2009	Wind Energy	Bird and bat monitoring at Serra da Nave Wind Farm, Portugal (pre-construction and operation phases). Portugal.

2009	Tourism	Ecological Impact Assessment of the housing development at Areia Branca's beach, Portugal. Portugal.
	Roads	Ecological Impact Assessment of the Housing development at Areia Branca's Deach, Portugal. Fortugal. Ecological Impact Assessment and design of the Offsets Programme for the main road IP8 between
		Baleizão and Vila Verde de Ficalho, Portugal.
2009	Agriculture	Ecological clerk of works during the construction of the drainage, irrigation and roadway infrastructures associated to the Brinche's Hydro agriculture Project, inserted in the Alqueva Irrigation System (EFMA, Portugal).
2009	Wind Energy	Habitat 4020 monitoring at Serra do Alvão Wind Farm, Portugal (pre-construction phase). Portugal.
2009	Roads	Ecological section of the Environmental Compliance Report for the execution project of conception, construction and operation of the A4 Highway, Transmontana Sublease between Vila Real and Bragança, Portugal. Portugal.
2009	Oil & Gas	Flora and vegetation monitoring at the high-pressure gas pipeline between Carriço and Leirosa-Lares, Portugal (post-construction phase). Portugal.
2009	Wind Energy	Terrestrial mammal monitoring at Carreço-Outeiro II Wind Farm, Portugal (pre-construction phase). Portugal.
2009	Agriculture	Bird monitoring at Pisão Dam inserted in the Alqueva Irrigation System (EFMA, Portugal). Portugal.
2009	Land Management	Strategic Ecological Assessment of Comporta's Territorial Action Programme, Portugal. Portugal.
2009	Wind Energy	Detailed mapping for the Lomba do Vale wind farm, Portugal. Portugal.
2009	Industry	Ecological section of the technical and environmental viability assessment of a water channel associated to a steel mill in the Tagus Estuary. Portugal.
2009	Wind Energy	Bird monitoring at Lomba do Vale Wind Farm, Portugal (pre-construction phase). Portugal.
2009	Roads	Peer-review of the ecological assessment and mitigation programme related to construction of the Douro Interior Highway, Portugal.
2009	Wind Energy	Bird and bat monitoring at Contim Wind Farm, Portugal (pre-construction, construction and operation phases). Portugal.
2009	Roads	Ecological section for the IC9-EN1 Fátima/Ourém (Portugal) Environmental Compliance Report. Portugal.
2009	Tourism	Habitat and Cabrera's vole colony mapping at the Herdade dos Despovoados in Zambujeira-do-Mar, Portugal. Portugal.
2009	Industry	Ecological Impact Assessment of RESPOL's resin plant in Leiria, Portugal. Portugal.
2009	Wind Energy	Ecological Impact Assessment of Alto do Marco's Wind Farm, Portugal. Portugal.
2009	Wind Energy	Bird and bat monitoring at Alto do Marco wind farm, Portugal (pre-construction phase). Portugal.
2009	Roads	Ecological section of the Preliminary Environmental Compliance Report for the conception, construction and operation of the Pinhal Interior Highway Sublease, Portugal.
2009	Hydric Energy	Technical advisory and terrestrial fauna section of the Environmental Impact Assessment of the Salamonde - Salamonde II Dam, Portugal (hydroelectric power station). Portugal.
2009	Airports	Ecological Impact Assessment of Lisbon's New Airport in Alcochete, Portugal. Portugal.
2009	Hydric Energy	Ecological Impact Assessment of Baixo Sabor Dam's (hydroelectric power station) Power Line (220kV) between the upstream step and Pocinho's substation, Portugal. Portugal.
2009	Roads	Ecological Impact Assessment of the preliminary study for the road alternative to the national road EN229 - Viseu (IP5/IP25) - Sátão, Portugal. Portugal.
2009	Roads	Strategic Ecological Assessment of the development of the National Road Network in coastal Alentejo and Algarve, Portugal. Portugal.
2009	Hydric Energy	Fauna and flora monitoring at Alvito's Dam (hydroelectric power station) (pre-construction phase). Portugal.
2009	Wind Energy	Wolf monitoring at Meroicinha II Wind Farm, Portugal, through photo trapping (pre-construction phase). Portugal.
2009	Roads	Peer-review of the ecological assessment and mitigation programme related to construction of the Baixo Alentejo Highway, Portugal. Portugal.
2009	Nature Conservation	Mapping of floristic species with conservation status at São Bento wind farm's construction area, Portugal. Portugal.
2009	Electric sector	Ecological advisory to an occurrence with white storks at the Recarei - Lavos power line (400 kV), Portugal. Portugal.
2009	Wind Energy	Baseline Ecological Assessment and bird and flora and vegetation monitoring at Cercal's Wind Farm, Portugal (pre-construction phase). Portugal.
2009	Wind Energy	Design of the terms of reference for the ecological assessment related to the installation of two Wind Farms in Venezuela
2009	Transports	Ecological Impact Assessment of three railway crossings in Alcácer do Sal, Portugal. Portugal.
2009	Roads	Peer-review of the ecological assessment and mitigation programme related to construction of the Algarve Litoral Highway, Portugal. Portugal.
2009	Maritime/ Ports	Ecological Impact Assessment of the Alcântara's container port terminal, Portugal. Portugal.
2009	Wind Energy	Bird monitoring at Bornes Wind Farm, Portugal (operation phase). Portugal.
2009	Wind Energy	Ecological Impact Assessment of the new Tocha's Wind Farm, Portugal. Portugal.
2009	Fisheries	Ecological Impact Assessment of the professional fishing facilities in São Jacinto, Ria de Aveiro, Portugal.

		Portugal.
2009	Roads	Non-flying terrestrial vertebrates Monitoring at the A4 Highway, Transmontana Sublease between Vila Real and Bragança, Portugal (pre-construction and construction phases). Portugal.
2009	Electric sector	Ecological Impact Assessment of the power line between Vila Pouca de Aguiar - Ribeira de Pena - Carrapatelo (400 Kv), Portugal. Portugal.
2008	Nature Conservation	Development of the WebGIS Biodiversity Tracking System tool. Portugal.
2008	Offshore Energy	Ecological Impact Assessment of the FLOW Project, a Martifer Energia's wave energy pilot-project, Portugal.
2008	Roads	Ecological section of the Preliminary Environmental Compliance Report study for the conception, construction and operation of the Douro Interior Highway Sublease, Portugal.
2008	Wind Energy	Ecological diagnosis for the potential construction of a Wind Farm in Facho da Azóia, Portugal. Portugal.
2008	Electric sector	Bird monitoring at the Mogadouro-Valeira high tension power line to the Olmos substation (220 kV) in Macedo de Cavaleiros, Portugal (pre-construction and construction phase). Portugal.
	Roads	Ecological section of the Preliminary Environmental Compliance Report for the conception, construction and operation of the Baixo Alentejo Highway Sublease, Portugal. Portugal.
2008	Wind Energy	Ecological diagnosis for the potential construction of Montejunto's Wind Farm, Portugal. Portugal.
2008	Roads	Tree mapping at the main road IC17 - CRIL, Portugal. Portugal.
2008	Roads	Ecological Impact Assessment and Environmental Compliance Report of the Highway A32/IC2 expansion - Gaia-Oliveira de Azeméis connection, Portugal. Portugal.
2008	Roads	Ecological section of the Preliminary Environmental Compliance Report for the conception, construction and operation of the Baixo Tejo Highway Sublease, Portugal. Portugal.
2008	Education & Awareness	Environmental Education Activity at Mata da Machada, in Barreiro, Portugal (2005, 2006, 2007 and 2008). Portugal.
2008	Wind Energy	Bird and bat monitoring at Cabeço da Rainha II Wind Farm, Portugal (constuction and operation phases). Portugal.
2008	Wind Energy	Bird and flora monitoring at São Bento wind farm, Portugal (pre-construction phase). Portugal.
2008	Wind Energy	Baseline ecological study at São Bento wind farm, Portugal (pre-construction phase). Portugal.
2008	Training	Course on Introduction to the Geographic Information Systems, SPEA, Lisbon, Portugal (2007 and 2006). Portugal.
2008	Wind Energy	Bird monitoring at Bravo and Mougueiras Wind Farms, Portugal (construction and operation phases). Portugal.
2008	Wind Energy	Bird, including Montagu's Harrier, and flora monitoring at Caramulo's Wind Farm, Portugal (construction and operation phases). Portugal.
2008	Agriculture	Ecological Impact Assessment of Redonda's Dam, Portugal. Portugal.
2008	Wind Energy	Baseline ecological study of Baixo Alentejo Wind farm, Portugal. Portugal.
2008	Wind Energy	Birds and bats monitoring at Mértola and Santa Cruz wind farms, Portugal (pre-construction phase). Portugal.
2008	Wind Energy	Ecological section of the environmental conformity report for the Mértola wind farm, Portugal. Portugal.
2008	Wind Energy	Ecological section of the environmental conformity report for the Santa Cruz wind farm, Portugal. Portugal.
2008	Wind Energy	Bird and bat monitoring at Montalegre and Facho-Colmeia Wind Farms, Portugal (pre-construction, construction and operation phases). Portugal.
2008	Electric sector	Ecological Impact Assessment of the the very high tension power line (400 kV) between Fernão Ferro - Palmela and the expansion of Fernão Ferro's substation, Portugal. Portugal.
2008	Roads	Ecological section of the Preliminary Environmental Compliance Report for the conception, construction and operation of the Litoral Oeste Highway Sublease, Portugal. Portugal.
2008	Roads	Ecological section of the Preliminary Environmental Compliance Report for the conception, construction and operation of the Centre Highway Sublease, Portugal. Portugal.
2008	Tourism	Ecological Impact Assessment of a touristic development in Vale do Alecrim, Portugal. Portugal.
2008	Transports	Ecological section of the Preliminary Environmental Compliance Report of the high-speed train (TGV), between Poceirão and Caia, Portugal.
2008	Wind Energy	Bird and bat monitoring at Carreço-Outeiro II Wind Farm, Portugal (pre-construction, construction and operation phases). Portugal.
2008	Tourism	Ecological advisory on the viability of Herdade do Pontal touristic development to be located at Ria Formosa Natural Park, Portugal. Portugal.
2008	Roads	Fauna and flora monitoring of the A4 Highway between Amarante and Vila Real, Portugal (preconstruction phase). Portugal.
2008	Maritime	Ecological Impact Assessment of the Aveiro Port's pier extension, Portugal. Portugal.
2008	Transports	Ecological Impact Assessment of Oporto's underground expansion to Gondomar, Portugal. Portugal.
2008	Roads	Ecological Impact Assessment of the alternative road to Trofa, Portugal. Portugal.
2008	Doods	Fools sized James & Assessment of the grade ICC ICC and ICCC Postural Destroyal
	Ruaus	Ecological Impact Assessment of the main roads IC6, IC7 and IC37, Portugal. Portugal.

Portugal.

2008	Wind Energy	Ecological Impact Assessment of a Wind Farm to be built in Tavira, Portugal. Portugal.
	Industry	Ecological Impact Assessment of an Aeronautic Industrial Development Project in Évora, Portugal.  Portugal.
2008	Electric sector	Ecological Impact Assessment of the Mogadouro substation, Portugal. Portugal.
2008	Tourism	Ecological valuing project for the touristic development of Quinta de Santo António, Portugal. Portugal.
2008	Roads	Ecological section of the Preliminary Environmental Compliance Report for the conception, construction and operation of the Algarve Litoral Highway Sublease, Portugal. Portugal.
2008	Other	Ecological Impact Assessment for the stabilization of the Mondego River between the dam-bridge and the Portela Bridge, Portugal. Portugal.
2007	Nature Conservation	Development and management of the WebGIS platform Biodiversity Database for Portugal. Portugal.
2007	Nature Conservation	Development and maintenance of the mapserver for the TRANSMAP project "Transboundary networks of marine protected areas for integrated conservation and sustainable development: biophysical, socioeconomic and governance assessment in East Africa" (http://. Portugal.
2007	Land Management	Ecological advisory on the public discussion related to Ria Formosa Natural Park's Land Planning Project, Portugal. Portugal.
2007	Roads	Cabrera's vole (Microtus cabrerae) survey at the construction area of the national roads EN218 and EN221, Portugal. Portugal.
2007	Urban	Ecological Impact Assessment of the the Portalegre Shopping Centre, Portugal. Portugal.
2007	Wind Energy	Bird and bat monitoring at Cabeço da Rainha II Wind Farm, Portugal (pre-construction phase). Portugal.
2007	Training	Course on Introduction to the Geographic Information Systems (LPN, Lisbon, Portugal). Portugal.
2007	Wind Energy	Bird and flora monitoring at Lousã II wind farm, Portugal (construction and operation phases). Portugal.
2007	Wind Energy	Bird (pre-construction, construction and operation phases) and flora (construction and operation phases) monitoring at São Macário Wind Farm, Portugal. Portugal.
2007	Land Management	Design of the Land Management Plan of the Hunting Area of Moita and Vila Nova de Monsarros, Portugal (Proc. nº 928 DGRF): procedure for a license renewal. Portugal.
2007	Wind Energy	Ecological Impact Assessment of Mosqueiros II Wind Farm, Portugal. Portugal.
2007	Wind Energy	Ecological Impact Assessment of Colmeia's Wind Farm, Portugal. Portugal.
2007	Wind Energy	Ecological Impact Assessment of Montalegre's Wind Farm, Portugal. Portugal.
2007	Electric sector	Ecological Impact Assessment of the power line between Armamar and Recarei, Portugal. Portugal.
2007	Hydric Energy	Ichthyofauna and pyrenean desman monitoring at the Rebordelo-Bouçoais Dam (Small Hydro), Portugal. Portugal.
2007		Ichthyofauna monitoring at Janeiro de Baixo Dam (Small Hydro), Portugal. Portugal.
2007	Wind Energy	Implementation of the mitigation plan for the environmental impact assessment of Sabugal wind farm and its power line – project for the construction of a scavenger birds feeder in Nave de Haver, Sabugal, Portugal. Portugal.
2007	Wind Energy	Ecological Impact Assessment of Malhanito Wind Farm, Portugal. Portugal.
2007	Wind Energy	Ecological Impact Assessment of Mezas, Fóios and Monte Vermelho Wind Farms, Portugal. Portugal.
2007	Wind Energy	Ecological Preliminary Assessment for the construction of Monte da Cumeada Wind Farm, Portugal. Portugal.
2007	Wind Energy	Bird monitoring at Lomba do Vale Wind Farm, Portugal (construction phase). Portugal.
2007	Hydric Energy	Ichtyofauna, macroinvertebrates, pyrenean desman, herpetofauna, bird and flora monitoring at Ferradosa, Olgas, Pretarouca and Sambade Dams, Portugal (construction and operation phases). Portugal.
2007	Agriculture	Ecological Impact Assessment of the water channel between Pisão and Beja inserted in the Alqueva Irrigation System (EFMA, Portugal). Portugal.
2007	Transports	Terrestrial vertebrates monitoring at REFER's railway between Santo Tirso and Guimarães and between Cete and Caíde, Portugal. Portugal.
2007	Education & Awareness	"Live Science Programme – Biology in the Summer Workshop" in partnership with the Environmental Biology Centre of the Faculty of Sciences of the University of Lisbon (Portugal): cork production and its beneficial effect in the fight against climate change. Portugal.
2007	Agriculture	Ecological section of the Environmental Compliance Report of the water channel Pisão-Roxo inserted in the Alqueva Irrigation System (EFMA, Portugal). Portugal.
2007	Electric sector	Design and implementation of the mitigation plan for the Environmental Impact Assessment of the Mogadouro-Valeira power line and the Olmos (Macedo de Cavaleiros, Portugal) substation, at 220 kV. Portugal.
2007	Electric sector	Ecological Impact Assessment of the power line between Vila Nova and Riba-d'Ave, Portugal. Portugal.
2007		Ecological section of the Land Management Plan of the Ermal's dam reservoir, Portugal. Portugal.
2007	Management Flectric sector	
2007	FIECUIC SECTOR	Ecological Impact Assessment of ENEOP2's power line between Armamar and Valeira, 220kV, Portugal. Portugal.
2007	Tourism	Ecological Impact Assessment of a touristic development in Vila Formosa, Odemira, Portugal. Portugal.
2007	Industry	Ecological Impact Assessment of a tissue paper Industrial Unit to be built in Chamusca, Portugal. Portugal.

2007	Wind Energy	Bird and bat monitoring at Guarda II Wind Farm, Portugal (pre-construction and operation phase).
		Portugal.
2007	Wind Energy	Bird, bat, flora and vegetation monitoring at Alto Minho Wind Farm, Portugal (Picos, Alto do Corisco and Santo António sub-farms) (pre-construction and operation phases). Portugal.
2007	Maritime/ Ports	Ecological Impact Assessment of the third bridge over the Tagus River and the bridge connecting Seixal to Barreiro, Portugal. Portugal.
2007	Roads	Ecological Impact Assessment of the alternative national road section of EENN 302-303 between Vila Nova de Cerdeira and Paredes de Coura, Portugal. Portugal.
2007	Water treatment	Ecological Impact Assessment of a water treatment plant in Vale do Ave, Portugal. Portugal.
2007	Roads	Ecological section of the Preliminary Environmental Compliance Report study for the conception, construction and operation of the A4 Highway, between Amarante and Vila Real, Portugal. Portugal.
2007	Hydric Energy	Ecological section of the Preliminary Environmental Compliance Report for the construction of Baixo Sabor Dam, Portugal (hydroelectric power station). Portugal.
2007	Wind Energy	Bird monitoring at Mastro's Wind Farm, Portugal (operation phase). Portugal.
2007	Agriculture	Wintering bird monitoring in the Alqueva-Pedrógão area in 2007-2008 inserted in the Alqueva Irrigation System (EFMA, Portugal). Portugal.
2007	Agriculture	Design of the Mediterranean Temporary Lagoons Conservation Plan for the Alqueva Irrigation System (EFMA, Portugal). Portugal.
2006	Hydric Energy	Ecological Impact Assessment of the Janeiro de Baixo Dam, Portugal (hydroelectric power station). Portugal.
2006	Agriculture	Ecological Impact Assessment of the Sorraia River Dam, Portugal. Portugal.
2006	Agriculture	Ecological Impact Assessment of the Ferreira-Valbom irrigation areas inserted in the Alqueva Irrigation System (EFMA, Portugal). Portugal.
	Roads	Vegetation asssessment in IC17 - CRIL highway. Portugal.
	Wind Energy	Bird (pre-construction, construction and operation phases) and flora (construction and operation phases) monitoring at São Macário Wind Farm, Portugal. Portugal.
	Agriculture	Ecological Impact Assessment and Environmental Compliance report relative to the Execution Plan of Balsemão River's Dam, Portugal. Portugal.
	Urban	Ecological Impact Assessment of Algoz's Industrial Area, Portugal. Portugal.
	Wind Energy	Bird, flora and vegetation monitoring at Moradal/Proença Wind Farm, Portugal (pre-construction, construction and operation phases). Portugal.
	Industry	Ecological Impact Assessment of Gavião's Industrial Area, Portugal. Portugal.
	Agriculture	Ecological Impact Assessment of the Alfundão irrigation area inserted in the Alqueva Irrigation System (EFMA, Portugal). Portugal.
	Tourism	Mapping of the tree cover at Chão do Golfe, Golf Academy, Portugal. Portugal.
	Wind Energy	Ecological diagnosis for the potential construction of four wind farms in northern and centre Portugal.  Portugal.
	Industry	Ecological Impact Assessment of Portalegre's Industrial Park, Portugal. Portugal.
	Wind Energy Wind Energy	Ecological Impact Assessment of Chão Falcão III Wind Farm, Portugal. Portugal.  Bird, bat and wolf monitoring at Sabugal Wind Farm, Portugal (pre-construction phase). Portugal.
	Transports	Terrestrial vertebrates Monitoring at REFER's Minho railway, Portugal (operation phase). Portugal.
	Transports	Terrestrial vertebrates monitoring at REFER's southern railway between Pragal/Pinhal Novo and km
	·	94/Funcheira, Portugal (operation phase). Portugal.  Ichthyofauna, pyrenean desman, aquatic macroinvertebrates, flora and vegetation monitoring at Trutas'
	Education &	Dam – Mini Hydro, Portugal (pre-construction and operation phases). Portugal.  Environmental Awareness Program under the Live Science - Biology in the summer, in partnership with
	Awareness Wind Energy	the Centre for Environmental Biology, Faculty of Sciences, University of Lisbon, Portugal. Portugal. Bird monitoring at Perdigão Wind Farm, Portugal (pre-construction, construction and operation phases).
	Tourism	Portugal.
	Transports	Ecological Impact Assessment of Ponta do Pargo's Golf Course, Madeira, Portugal. Portugal.  Ecological Impact Assessment of the expansion of Lisbon's (Portugal) underground red line between S.
	Maritime/	Sebastião and Campolide and yellow line between Rato and Estrela. Portugal.
2000	Ports	Ecological Impact Assessment of the Terreiro do Paço Transportation Terminal, Portugal. Portugal.
2006	Tourism	Ecological Impact Assessment of Sintra's Golf & Country Club, Portugal. Portugal.
	Wind Energy	Bird monitoring at Zibreiro Wind Farm, Portugal (pre-construction phase). Portugal.
2006	Maritime/ Ports	Ecological Impact Assessment of Lisbon's new container Port Terminal, Portugal. Portugal.
2006		Ecological Impact Assessment of Armamar's substation and deviation of its associated power lines, Portugal. Portugal.
2006	Agriculture	Design of the steppe bird monitoring programme to be included in the Environmental Impact Assessment of the Alvito-Pisão irrigation areas inserted in the Alqueva Irrigation System (EFMA, Portugal). Portugal.
2006	Wind Energy	Ecological Impact Assessment of Lomba do Vale Wind Farm, Portugal. Portugal.

	Wind Energy	Flora monitoring at Gardunha Wind Farm's power line, Portugal (pre-construction phase). Portugal.
2005	Tourism	Ecological Impact Assessment of the touristic development in Cal Island, Porto Santo, Madeira, Portugal. Portugal.
2005	Transports	Ecological Impact Assessment for the high-speed train (TGV), sector 3C between Évora, Portugal, and the national border). Portugal.
2005	Roads	Ecological Impact Assessment of the national road EN221 and the alternative road to Escalhão, Portugal. Portugal.
2005	Water treatment	Ecological Impact Assessment of Barreiro's water treatment plant, Portugal. Portugal.
2005	Hydric Energy	Design of the Biodiversity Monitoring Programme for the Ferradosa Dam, Portugal. Portugal.
2005	Wind Energy	Baseline Ecological Assessment for the potential construction of Vale Grande Wind Farm, Portugal. Portugal.
2005	Electric sector	Ecological Impact Assessment of the Alqueva substation (EFMA, Portugal). Portugal.
2005	Wind Energy	Ecological clerk of works during the construction of Alto Minho I Wind Farm's power lines, Portugal. Portugal.
2005	Nature Conservation	Flora inventory at Óbidos' lagoon (Portugal) – Assessment to be included in the proposal for it's classification as a regional protected area. Portugal.
2005	Transports	Ecological Impact Assessment of Coimbra's Intermodal Complex, Portugal. Portugal.
2005	Land Management	Ecological section of the environmental incidences study for Setubal's POLIS programme, Portugal. Portugal.
2005	Wind Energy	Ecological section of the environmental incidences study for Felgar wind farm, Portugal. Portugal.
2005	Extraction sector	Ecological section of the management and sand extraction plan for the River Mondego's and Vouga's drainage basins. Portugal.
2005	Agriculture	Fauna and flora specialist studies to be integrated in the Environmental Impact Assessment of the irrigation areas of Alvito-Pisão inserted in the Alqueva Irrigation System (EFMA, Portugal). Portugal.
2005	Tourism	Habitat mapping to be included in the Environmental Impact Assessment of the camping sites located at Arriba Fóssil da Costa da Caparica Protected Area, Portugal. Portugal.
2005	Hydric Energy	Ecological section of the Environmental Compliance Report for the Vales Dam, Portugal. Portugal.
2005	Wind Energy	Habitat mapping to be included in the Environmental Impact Assessment of Serra de Candeeiros II Wind Farm, Portugal. Portugal.
2005	Nature Conservation	Final report of the red-billed chough (Pyrrhocorax pyrrhocorax) monitoring at Serra de Candeeiros' south ridge area, Portugal. Portugal.
2005	Tourism	Advisory on the implementation of the biodiversity monitoring plans associated to the Porto Santo golf course, Madeira, Portugal. Portugal.
2005	Wind Energy	Bird, including Montagu's Harrier, and flora monitoring at Caramulo's Wind Farm, Portugal (preconstruction). Portugal.
2005	Education & Awareness	"Live Science Programme – Biology in the Summer Workshop" in partnership with the Environmental Biology Centre of the Faculty of Sciences of the University of Lisbon (Portugal): water in the Mediterranean ecosystems – the example of the cork woodland at Grândola's mountain. Portugal.
2005	Electric sector	Ecological Impact Assessment of the National Network for Energy Transportation International Douro river, Portugal. Portugal.
2005	Wind Energy	Bird and flora monitoring at Pinhal do Interior Wind Farm, Portugal (pre-construction, construction and operation phases). Portugal.
2005	Wind Energy	Bird monitoring at Monção Wind Farm site (Portugal) and design of the Monitoring Programme to be integrated in the project's Environmental Compliance Report. Portugal.
2005	Roads	Fauna and flora monitoring at A28/IC1 Highway, between Viana do Castelo-Caminha and at A27/IP9 Highway - Ponte de Lima, Portugal (pre-construction phase). Portugal.
2005	Agriculture	Ecological Impact Assessment and design of the monitoring programmes for Sambade Dam, Portugal. Portugal.
2005	Wind Energy	Ecological Impact Assessment of the Lousã II Wind Farm, Portugal. Portugal.
2005	Wind Energy	Bird and flora monitoring at Lousã II wind farm, Portugal (pre-construction). Portugal.
2005	Wind Energy	Baseline Ecological Assessment on Black Vulture (Aegypius monachus) at Sabugal Wind Farm site, Portugal (pre-construction phase). Portugal.
	Solar Energy	Data and report validity and accompanying letters (Avifauna & Fauna) of Kruispad Photovoltaic Solar Energy Facility (PVSEF) South Africa.
	Wind Energy	Avifauna and Bats Site Walk-through & Letters of Kudusberg Wind Energy Facility (WEF) (Northern Ridge) South Africa.

#### **Others projects**

2005 Environmental Environmental education project "Environmental Awareness Program in the context of the Living Science Program - Summer Biology, in partnership with the Environmental Biology Center of the Sciences Faculty

of the University of Lisbon (Portugal): Water in Mediterranean ecosystems - the example of the cork oak

forest Grandola". Portugal.

		Farms III. Doubused
2005	Tourism	Farm I". Portugal.  Monitoring project "Assistance to the implementation of the biological monitoring plans of the Porto Santo
2003	TOUTISTIT	Golf Course". Portugal.
2005	Wind Energy	Monitoring project "Characterization of the avifauna in the Alto do Monção Wind Farm (Portugal) and preparation of the respective monitoring plan to be included in the Environmental Compliance Report of the Implementation Project (RECAPE)". Portugal.
2005	Wind Energy	EIA project "Habitat cartography for the Environmental Impact Study of the Serra de Candeeiros II Wind Farm". Portugal.
2005	Tourism	EIA project "Cartography of habitats for the Environmental Impact Study of campsites located in the Protected Landscape of Arriba Fossil of Costa da Caparica". Portugal.
2005	Extraction sector	Management Plan project "Ecology component of the Management Plan for Inert Extraction of the Vouga and Mondego Basins". Portugal.
2005	Wind Energy	EIA project "Ecology component of the Environmental Impact Study of the Felgar Wind Farm". Portugal.
2005	Wind Energy	EIA project "Ecology component of the Environmental Impact Study of the Lousã II Wind Farm". Portugal.
2005	Electric Sector	EIA project "Ecology component of the Environmental Impact Study of the Modification of the National Transport Network in the Douro International Zone". Portugal.
2005	Hydric Energy	Environmental Conformity project "Ecology component of the Environmental Compliance Report of the Implementation Project (RECAPE) of the Vales Hydroelectric Plant". Portugal.
2005	Hydric Energy	EIA project "Ecology component of the Environmental Impact Study of Sambade, Portugal, and elaboration of the monitoring plans". Portugal.
2005	Transports	EIA project "Ecology component of the Environmental Impact Study of the high-speed rail line (TGV) - Lot 3C". Portugal.
2005	Roads	EIA project "Ecology component of the Environmental Impact Study of EN221 and Escalhão variant". Portugal.
2005	Agriculture	EIA project "Ecology component of the Environmental Impact Study of the Alqueva Substation". Portugal.
2005	Agriculture	EIA project "Ecology component of the reference situation of the Environmental Impact Study of the Alvito-Pisão Irrigation Blocks associated to the Alqueva Multiple Purpose Project". Portugal.
2005	Tourism	EIA project "Ecology component of the Study of Environmental Impact of the Tourist Resort of Ilhéu da Cal, Porto Santo". Portugal.
2005	Urban	EIA project "Ecology component of the Environmental Incidents Study of the Setubal POLIS Program ". Portugal.
2005	Water treatment	EIA project "Ecology component of the Environmental Impact Study of the Barreiro Wastewater Treatment Plant". Portugal.
2005	Extraction sector	EIA project "Ecology component of the Management Plan for Inert Extraction of the Vouga and Mondego Basins". Portugal.
2005	Wind Energy	Baseline Assessment project "Ecological Base Study on Black Vulture (Aegypius monachus) in the area of the Sabugal Wind Farm (pre-construction phase)". Portugal.
2005	Wind Energy	Monitoring project "Elaboration of the final report on the monitoring of the red-legged crow (Pyrrhocorax pyrrhocorax) in the southern part of the mountain range of Serra dos Candeeiros". Portugal.
2005	Hydric Energy	Monitoring Plan Design project "Biodiversity monitoring plan elaboration in the Ferradosa Hydroelectric Plant". Portugal.
2005	Wind Energy	Baseline Assessment project "Ecological Base Study of the Vale Grande Wind Farm". Portugal.
2005	Nature Conservation	Baseline Assessment project "Flora inventory in Óbidos Lagoon - Study to be included in the proposal to classify the Lagoa as a Regional Protected Landscape Area". Portugal.
2005	Wind Energy	Monitoring project "Avifauna and flora monitoring in the Pinhal Interior Wind Farm (pre-construction, construction and exploration phase)". Portugal.
2005	Environmental education	Environmental education project "Guided visits to students of Basic Education - Ecological Strand of the Grândola Mountain Range for the Grândola Municipal Council". Portugal.
2005	Transports	Baseline Assessment project "Reference situation of the ecology component of the Study of

# + Training

techniques

2008 Finance

2010	EIA	"Framework of the Environmental Impact Assessment (EIA) and Environmental Consulting in Mozambique" Workshop by Portuguese Association of Impact Assessment . 10 Feb, 2010. Lisbon, Portugal.
2009	Leadership	"Executive coaching for leaders" Course by International School of Professional Coaching . 29 Oct a 30 Oct, 2009. Lisbon, Portugal.
2009	Sampling techniques	"Training and Accreditation in the River Habitat Survey (RHS)" Course by Water National Institute . 20 Apr a 23 Apr, 2009. Vila Real, Portugal.
2009	Sampling technologies	"Merlin Avian Radar System Training Class for Wind Energy & Environmental Projects" Course by Detect Inc . 2 Feb a 5 Feb, 2009. Florida, USA.
2008	Sampling	"Dog training for birds and bats corpses search and detection" Course by Cinotech Technical Group of the

"Finance for managers and non-financiers" Course by Higher Institute of Economics and Business . 11 - 5

Environmental Incidents of the Coimbra Intermodal Complex". Portugal.

Public Security Police Special Unit . 1 - 1 Apr, 2008. , Portugal.

Feb, 2008. Lisbon, Portugal.

2007 Project

"Project Management for Executives " Course by Higher Institute of Business . 29 - 21 Jan, 2007. Lisbon,

Management

2004 EIA

"Development and implementation of bioindicators in impact assessment and biodiversity monitoring schemes" Course by Zoology Department of Coimbra University . 20 Sep a 30 Sep, 2004. Coimbra,

2004 Environment Law "Initiation to the Environment Legal Order " Course by Liga para a Protecção da Natureza . 26 Jan a 31

Jan, 2004. Lisbon, Portugal.

2003 Flora ID

"Flora and Mediterranean vegetation" Course by Sciencies Faculty of University of Lisbon - Plant Biology

Department . 25 Apr a 30 Apr, 2003. Lisbon, Portugal.

#### + Publications

I Ecological Statistics

2019 Oral Presentation Rodrigues, S., Zea Bermudez, P., Turkman, F., Coelho, H., Mascarenhas, M. (2019). Spatial analysis of bat abundance with adjustment for detection probability using distance sampling methods for acoustic data. XXIV Congress of the Portuguese Society of Statistics [XXIV Congresso da Sociedade Portuguesa de Estatística]. 6 to 9 November, 2019. Amarante, Portugal.[in Portuguese]

2019 Poster | Wind Energy

Ribeiro, J. I., Cardoso, P. E., Coelho, H., Mascarenhas, M. (2019). Development of Wind Energy in Brazil present and future latent conflict with bird collisions. 5th edition of the Conference on Wind energy and Wildlife impacts (CWW 2019). 27 to 29 de August, 2019. Stirling, Scotland.

I Wind energy Environ. Assessment

2019 Oral presentation Cardoso, P., Ribeiro, J. I., Coelho, H., Mascarenhas, M. (2019). Does high mortality at wind farms really mean high impact? - A framework shift in AIA process to reduce uncertainty. 5th edition of the Conference on Wind energy and Wildlife impacts (CWW 2019). 27 to 29 de August, 2019. Stirling, Scotland.

| Wind Energy **Impact** Assessment

2019 Oral presentation Mascarenhas, M., Cardoso, P., Coelho, H. (2019). Wind sector and biodiversity: distinction between individual effects and impacts on populations. 2nd Edition of WIBIS Brasil (WIBIS Summit). 16th and 17th July, 2019. São Paulo, Brazil. [In Portuguese].

2019 Oral presentation | Wind Energy **Impact** Assessment

Cardoso, P., Ribeiro, J.I., Coelho, H., Mascarenhas, M. (2019). Wind Sector development and climate change; identification of conflicts with biodiversity. 2nd Edition of WIBIS Brasil (WIBIS Summit). 16th and 17th July, 2019. São Paulo, Brazil. [In Portuguese].

2019 Technical Workshop | Wind Energy Impact Assessment

Mascarenhas, M., Cardoso, P., Roos, E., Paula, J., Coelho, H. (2019). Technical Workshop: Monitoring in operation of a wind farm - A tool for adaptive management. 2nd Edition of WIBIS Brasil (WIBIS Summit). 16th and 17th July, 2019. São Paulo, Brazil. [In Portuguese].

2019 Poster | Wind Energy Impact Assessment

Mascarenhas, M., Mesquita, S., Coelho, H., Domingues, F., Koppel, J., Biehl, J., Gill, A.B. (2019). WIBIS Summit: Wind Farms and Biodiversity - Perspectives to sustainability in emerging countries. 5th edition of the Conference on Wind energy and Wildlife impacts (CWW 2019). 27 to 29 de August, 2019. Stirling, Scotland.

| Wind Energy **Impact** Assessment

2019 Oral presentation Rodrigues, S., Rosa, L., Coelho, H., Mascarenhas, M. (2019). Is using collision risk models a reasonable approach to predict fatalities for collision risk assessments in EIA and aid in mitigation measures' plan? 5th edition of the Conference on Wind energy and Wildlife impacts (CWW 2019). 27 to 29 August, 2019. Stirling, Scotland.

2019 Book chapter | Sampling methodologies

Rosa, L., Neves, T., Vieira, D., Mascarenhas, M. (2019). Camera-Trapping Versus Conventional Methodology in the Assessment of Carcass Persistence for Fatality Estimation at Wind Farms. In: Bispo et al. (eds) Wind Energy and Wildlife Impacts. Springer, Cham.

Statistics

2019 Poster | Ecological Rodrigues, S., Zea Bermudez, P., Turkman, F., Coelho, H., Mascarenhas, M. (2019). Spatial analysis of bat abundancy with adjustment for detection probability using distance sampling methods for acoustic data. European Courses in Advanced Statistics on Statistical Analysis for Space-Time Data (ECAS2019). Lisbon, Portugal, July 15th-17th.

2018 Book Chapter | Wind Energy **Impacts** 

Santos, J., Marques, J., Neves, T., Marques, A.T., Ramalho, R., Mascarenhas, M. (2018). Environmental Impact Assessment Methods: An Overview of the Process for Wind Farm's Different Phases - From Pre-Construction to Operation. In: Mascarenhas et al. (Eds). Biodiversity and Wind Farms in Portugal. Chapter 3, pp. 35-86. Springer, Cham.

2018 Book Chapter | Wind Energy Impacts

Rodrigues, S., Rosa, L., Mascarenhas, M. (2018). An Overview on Methods to Assess Bird and Bat Collision Risk in Wind Farms. In: Mascarenhas et al. (Eds). Biodiversity and Wind Farms in Portugal. Chapter 4, pp. 87-110. Springer, Cham.

2018 Book Chapter | Wind Energy **Impacts** 

Marques, J., Rodrigues, S., Ferreira, R., Mascarenhas, M. (2018). Wind Industry in Portugal and Its Impacts on Wildlife: Special Focus on Spatial and Temporal Distribution on Bird and Bat Fatalities. In: Mascarenhas et al. (Eds). Biodiversity and Wind Farms in Portugal. Chapter 1, pp. 1-22. Springer, Cham.

2018 Oral Presentation Wind Energy Impact Assessment

Mascarenhas, M. (2018). Environmental Impact Assessment Methods: An Overview of the Process for Different Phases of Wind Power Plants - From Pre-Construction to Operation. 1st Edition of WIBIS Brasil (WIBIS Summit). 19th and 20th June, 2018. São Paulo, Brazil. [In Portuguese].

2018 Technical workshop | Wind **Energy Impact** Assessment

Mascarenhas, M. (2018). Technical Workshop: Experimental Design for the Evaluation of the Impact on Biodiversity in Wind Farms. Case Study: Implementation of the Serra dos Candeeiros Wind Farm, Portugal. 1st Edition of WIBIS Brasil (WIBIS Summit). 19th and 20th June, 2018. São Paulo, Brazil. [In Portuguese].

2018 Technical Mascarenhas, M., Cardoso, P. (2018). Mortality Estimates Workshop: How do you adjust the mortality of

2010	Assessment	
2018	Book Chapter   Wind Energy Impacts	Paula, J., Augusto, M., Neves, T., Bispo, R., Cardoso, P., Mascarenhas, M. (2018). Comparing Field Methods Used to Determine Bird and Bat Fatalities. In: Mascarenhas et al. (Eds). Biodiversity and Wind Farms in Portugal. Chapter 2, pp 135-150. Springer, Cham.
2018	Book Chapter   Wind Energy Impacts	Coelho, H., Mesquita, S., Mascarenhas, M. (2018). How to Design an Adaptive Management Approach?. In: Mascarenhas et al. (Eds). Biodiversity and Wind Farms in Portugal. Chapter 8, pp. 205-224. Springer, Cham.
2018	Book editor   Wind Energy Impacts	Mascarenhas, M., Marques, A.T., Ramalho, R., Santos, D., Bernardino, J., Fonseca, C. (Eds.) (2018). Biodiversity and Wind Farms in Portugal. Current knowledge and insights for an integrated impact assessment process. Springer, Cham.
2017	Oral Presentation   Statistics & Ecology	Cláudio, N., Rodrigues, S., Mascarenhas, M., Mouriño, H., Marques, T.A. (2017). Classificação automática de sons de morcegos [Automatic identification of bat sounds]. Congresso da Sociedade Portuguesa de Estatística. 18 to 21 de October 2017. Lisbon, Portugal.[in Portuguese]
2017	Oral presentation   Wind Energy Impacts	Campbell, C., Ramalho, R., Cervantes, F., Retief, K., Marques, J., Paula, J., Neves, T., Mascarenhas, M. Leeuwner, L., Michael, M. (2017). Using detection dogs in bat and bird carcass searches in a South Africa's wind farm context: Benefits and constrains. 4th Conference on Wind energy and Wildlife impacts (CWW). 6 to 8 september 2017. Estoril, Portugal.
2017	Oral presentation   Wind Energy Impacts	Coelho, H., McLean, N., Mascarenhas, M., Pendlebury, C. (2017). Experiences gained from delivery of offshore wind energy in the UK that could inform the environmental assessment of Portuguese projects. 4th Conference on Wind energy and Wildlife impacts (CWW). 6 to 8 September 2017. Estoril, Portugal.
2017	Poster   Wind energy Environ. Assessment	Mascarenhas, M., Coelho, H., Sá da Costa, A. (2017). Wind farms aren't the same concept to all of us? So what are they? 4th Conference on Wind energy and Wildlife impacts (CWW). 6 to 8 september 2017. Estoril, Portugal.
2017	Poster   Wind energy Environ. Assessment	Tidhar, D., Mascarenhas, M., Coelho, H., McLean, N. (2017). How to reduce uncertainty using a question based approach for universal wind energy assessment. 4th Conference on Wind energy and Wildlife impacts (CWW). 6 to 8 september 2017. Estoril, Portugal.
2017	Poster   Wind Energy Impacts	Mesquita, S., Coelho, H., Mascarenhas, M. (2017). Adding value to wind farm projects by integrating ecosystem services in the environmental impact assessment process. 4th Conference on Wind energy and Wildlife impacts (CWW). 6 to 8 september 2017. Estoril, Portugal.
2017	Poster   Wind energy Environ. Assessment	Mesquita, S., Coelho, H., Mascarenhas, M. (2017). Call for action: Adaptive management in practice. 4th Conference on Wind energy and Wildlife impacts (CWW). 6 to 8 september 2017. Estoril, Portugal.
2017	Oral presentation   Wind Energy Impacts	Santos, J., Rosa, L., Mascarenhas, M. (2017). Mitigation strategies & effectiveness - the Candeeiros wind farm monitoring and mitigation program case study. 4th Conference on Wind energy and Wildlife impacts (CWW). 6 to 8 september 2017. Estoril, Portugal.
2017	Poster   Ecology	Santos, J., Ferreira, A.C., Mascarenhas, M., Reis, C. (2017). Local stakeholders' involvement on offset/compensation projects: What is their role and how they matter for sustainability? 4th Conference on Wind energy and Wildlife impacts (CWW). 6 to 8 september 2017. Estoril, Portugal.
2017	Poster   Wind Energy Impacts	Marques, J., Mascarenhas, M. (2017). Fatality Estimation Using a Bayesian Approach - Prediction of fatalities and adjustment of monitoring programmes. 4th Conference on Wind energy and Wildlife impacts (CWW). 6 to 8 september 2017. Estoril, Portugal.
2017	Poster   Wind Energy Impacts	Passos, I., Silva, M., Mascarenhas, M., Mesquita, S. (2017). Invasive Plant Control - Challenges and Opportunities. 4th Conference on Wind energy and Wildlife impacts (CWW). 6 to 8 september 2017. Estoril, Portugal.
2017	Oral Presentation   Wind Energy Impacts	Marques, J., Rodrigues, S., Mascarenhas, M. (2017). Is Bird Fatality driven by environmental features? A spatial model for Portugal. 4th Conference on Wind energy and Wildlife impacts (CWW). 6 to 8 september 2017. Estoril, Portugal.
2017	Poster   Ecology	Rodrigues, S., Marques, J., Coelho, H., Mascarenhas, M. (2017). Bat nightly and seasonal activity patterns at height: A cross country comparison and insights into conservation. 4th Conference on Wind energy and Wildlife impacts (CWW). 6 to 8 september 2017. Estoril, Portugal.
2017	Poster   Wind Energy Impacts	Marques, J., Rodrigues, S., Mascarenhas, M. (2017). Bird behavioural response to the surrounding environment: a specific approach to wind farm location and placement. 4th Conference on Wind energy and Wildlife impacts (CWW). 6 to 8 september 2017. Estoril, Portugal.
2017	Oral presentation   Sampling methodologies	Rosa, L., Paula, J., Mascarenhas, M. (2017). Camera-trapping as a methodology in the assessment of carcass persistence, used in bird and bat fatality estimates at wind farms. 4th Conference on Wind energy and Wildlife impacts (CWW). 6 to 8 september 2017. Estoril, Portugal.
2017	Poster   Wind Energy impacts	Passos, I., Silva, M.R., Paiva, A., Mascarenhas, M., Rodrigues, S., Mesquita, S. (2017). Invasive Plant Control – Challenges and Opportunities. Conference on Wind energy and Wildlife impacts. 6 to 8 September. Lisbon, Portugal.
2016	Oral Presentation   Wind Energy Impacts	Mesquita, S., Marques, J., Rodrigues, S., Cordeiro, A., Mascarenhas, M., Ramalho, R., Costa, C., Ferreira, M. (2016). Mitigação de impactes dos parques eólicos em quirópteros minimizando perdas de produção: dois casos de estudo de adequação da velocidade de arranque das turbinas [Mitigation of wind farm impacts in bats and production loss minimization: two study cases of optimization of turbine cut-in speed]. 6a Conferência Nacional de Avaliação de Impactes (CNAI). University of Évora, 19 to 21 May 2016. Évora, Portugal. [in Portuguese]
2016	Paper	Rosa, I.M.D, Marques, A.T., Palminha, G., Costa, H., Mascarenhas, M., Fonseca, C., Bernardino, J. (2016).

workshop | Wind the bat found in a wind turbine?. 1st Edition of WIBIS Brasil (WIBIS Summit). 19th and 20th June, 2018.

Energy Impact São Paulo, Brazil. [In Portuguese].

Assessment

	Monitoring techniques	Classification success of six machine learning algorithms in radar ornithology. Ibis 158:28-42.
2016	Paper   Bat Conservation	Pereira, M.J.R., Peste, F., Paula, A., Pereira, P., Bernardino, J., Vieira, J., Bastos, C., Mascarenhas, M., Costa, H., Fonseca, C. (2016). Managing coniferous production forests towards bat conservation. Wildlife Research 43(1):80-92. http://dx.doi.org/10.1071/WR14256
2015	Oral Presentation   Wind Energy Impacts	Marques, A.T., Batalha, H., Rodrigues, S., Costa, H., Pereira, M.J., Fonseca, C., Mascarenhas, M., Bernardino, J. 2014. Understanding Bird Collisions at Wind Farms: An Updated Review on the Causes and Possible Mitigation Strategies. International Synopsis on Wind Energy and Wildlife. 10 Nov 2015, Berlin.
2015	Paper   Sampling methodologies	Paula, J., Bispo, J.S., Regina, M.B., Leite, A.H., Pereira, P., Costa, H., Fonseca, C., Mascarenhas, M., Bernardino, J. (2015). Camera-trapping as a methodology to assess the persistence of wildlife carcasses resulting from collisions with human-made structures. Wildlife Research 41(8):717-725.
2015	Paper   Wind Energy Impacts	Peste, F., Paula, A., da Silva, L.P., Bernardino, J., Pereira, P., Mascarenhas, M., Costa, H., Vieira, J., Bastos, C., Fonseca, C., Ramos Pereira, M.J. (2015). How to mitigate impacts of wind farms on bats? A review of potential conservation measures in the European context. Environmental Impact Assessment Review 51:10-22.
2015	Oral presentation   Mitigation	Mascarenhas, M. (2015). Wind & Biodiversity Project: fostering synergies to understand and mitigate wind energy impacts. Wind & Biodiversity Seminar. 15th January, 2015. Aveiro, Portugal.
2015	Book   Wind Energy Impacts	Mascarenhas, M., Bernardino, J., Paula, A., Costa, H., Bastos, C., Cordeiro, A., Marques, A., Marques, J., Mesquita, S., Paula, J., Pereira, M., Peste, F., Ramalho, R., Rodrigues, S., Santos, J., Veira, J., Fonseca, C. 2015. Biodiversity & Wind Energy: A Bird's and Bat's Perspective. ed. Aveiro, Portugal: Bio3 e Universidade de Aveiro, 2015, p. 30-52.
2015	Poster   Wind Energy Impacts	Marques, A.T., Batalha, H., Rodrigues, S., Costa, H., Ramos Pereira, M.J., Fonseca, C., Mascarenhas, M., Bernardino, J. (2015). Unraveling the causes of bird mortality with wind turbines: what do we know so far? Wind energy and Wildlife impacts. CWW 2015. 10 to 12 March, 2015. Berlin, Germany. [Best poster award]
2015	Oral presentation   Wind Energy Impacts	Bispo, R., Bernardino, J., Paula, J., Marques, T., Costa, H., Mascarenhas, M. (2015). Enhancing the study design of carcass removal trials for bats and birds at wind farms. Wind energy and Wildlife impacts. 10th to 12th March 2015. Berlin, Germany.
2014	Proceedings   Wind Energy	Correia, R., Vieira, J., Faneca, C., Albuquerque, D., Bastos, C., Costa, H. Bernardino, J., Mascarenhas, M., Pereira, M.J., Fonseca, C., Inácio, O. (2014). Characterization of the ultrasonic acoustic field of a wind turbine. In Proceedings of TecniAcoistica 2014. Conferencias y Comunicaciones del 45° Congreso Español de Acústica, 8° Congreso Ibérico de Acústica y Simposio Europeo de Ciudades Inteligentes y Acústica Ambiental. 29 to 31 October 2014. Múrcia, Spain.
2014	Oral presentation   Wind Energy Impacts	Bernardino, J., Bispo, R., Paula, J., Costa, H., Mascarenhas, M. (2014). Os desafios da estimação da mortalidade de aves e morcegos em parques eólicos: avanços recentes e novas diretrizes [The challenges of estimating the mortality of birds and bats in wind farms: recent advances and new directions]. 5° Congresso Nacional de Avaliação de Impacte (CNAI). 20 and 21 March 2014. Viseu, Portugal.[in Portuguese]
2014	Paper   Wind Energy Impacts	Marques, A. T., Batalha, H., Rodrigues, S., Costa, H., Pereira, M. J. R., Fonseca, C., Mascarenhas, M., Bernardino, J. 2014. Understanding bird collisions at wind farms: An updated review on the causes and possible mitigation strategies. Biological Conservation, 40-52.
2014	Minutes book   Wind Energy Impacts	Bernardino, J., Bispo, R., Paula, J., Costa, H., Mascarenhas, M. (2014). The challenges of estimating the mortality of birds and bats in wind farms: recent advances and new directions. Minutes book of the 5th National Congress of Impact Assessment. 20 and 21 March 2014. Viseu, Portugal. ISBN: 978-989-96971-1-9.
2014	Minutes book   Wind Energy Impacts	Bernardino, J., Paula, A., Marques, A. T., Peste, F., Pereira, M.J., Fonseca, C., Mascarenhas, M., Costa, H. (2014). Strategies and technologies to minimize the impacts of wind farms on birds and bats: what's the true cost/benefit? Minutes book of the 5th National Congress of Impact Assessment. 20 and 21 March 2014. Viseu, Portugal. ISBN: 978-989-96971-1-9.
2014	Oral presentation   Wind energy	Correia, R., Vieira, J., Faneca, C., Albuquerque, D., Bastos, C., Costa, H. Bernardino, J., Mascarenhas, M., Pereira, M.J., Fonseca, C., Inácio, O. (2014). Characterization of the ultrasonic acoustic field of a wind turbine. TecniAcoustica 2014. 29th to 31st October, 2014. Múrcia, Spain.
2014	Oral presentation   Wind Energy Impacts	Bernardino, J., Bispo, R., Paula, J., Costa, H., Mascarenhas, M. (2014). Os desafios da estimação da mortalidade de aves e morcegos em parques eólicos: avanços recentes e novas diretrizes [The challenges of estimating mortality of birds and bats at wind farms: recent advances and new guidelines]. 5th National Congress of Impact Assessment. 20th to 21st March 2014. Viseu, Portugal. [in Portuguese]
2014	Oral presentation   Wind Energy Impacts	Bernardino, J., Paula, A., Marques, A. T., Peste, F., Pereira, M.J., Fonseca, C., Mascarenhas, M., Costa, H. (2014). Estratégias e tecnologias de minimização de impactes dos parques eólicos nas aves e morcegos: qual a verdadeira relação de custo/benefício? [Wind Farm Impact minimization strategies and technologies for birds and bats: what is the true cost/benefit?]. 5th edition of Congresso Nacional de Avaliação de Impacte CNAI. 20th to 21st March, 2014. Viseu, Portugal. [in Portuguese]
2014	Oral presentation   Agriculture	Marques, A.T., Rosa, I., Palminha, G., Paixão, R., Bernardino, J., Costa, H., Mascarenhas, M. (2014). Caraterização da atividade da avifauna associada à sementeira do arroz, através de um sistema de radar [Characterization of birds associated with rice seed activity, through a radar system]. VIII Congresso de Ornitologia da SPEA. 1st to the 4th of March 2014. Almada, Portugal. [in Portuguese]
2013	Paper   Statistical analysis	Bernardino, J., Bispo, R., Costa, H., Mascarenhas, M. (2013). Estimating bird and bat fatality at wind farms: a practical overview of estimators, their assumptions and limitations. New Zealand Journal of Zoology, 40, 1: 63-74.
2013	Paper   Statistical	Bernardino, J., Bispo, R., Costa, H., Mascarenhas, M. (2013). Estimating bird and bat fatality at wind

2013	Proceedings   Wind Energy Monitoring	Correia, R., Faneca, C., Vieira, J.M.N., Bastos, C., Mascarenhas, M., Costa, H., Bernardino, J., Fonseca, C., Pereira, M.J.R. (2013). Bat Monitoring System for Wind Farms. Proceedings of the 12th Conference on Programmable Devices and Embedded Systems. 25 to 27 September 2013. Velke Karlovice, Czech Republic.
2013	Oral presentation   Wind Energy Impacts	Bernardino, J., Mascarenhas, M., Jodas, K., Thomas, J., Costa, H. (2013). Mitigating and monitoring impacts of wind energy facilities on birds and bats: lessons learnt from the European experience. WINDaba 2013. 25th to 27th September 2013. Cape Town, South Africa.
2013	Oral presentation   Wind Energy Monitoring	Correia, R., Faneca, C., Vieira, J.M.N., Bastos, C., Mascarenhas, M., Costa, H., Bernardino, J., Fonseca, C., Pereira, M.J.R. (2013). Bat Monitoring System for Wind Farms. 12th Conference on programmable devices and embedded systems. 25th to 27th September 2013. Velke Karlovice, Czech Republic.
2013	Oral presentation   Wind Energy Impacts	Passos, I., Silva, M.J., Mesquita, S., Marques, A.T., Bernardino, J., Costa, H., Mascarenhas, M. (2013). Aliens in wind farms - preventing and monitoring impacts on vegetation. Conference on Wind power and Environmental impacts. 5th to the 7th February 2013. Stockholm, Sweden.
2013	Oral presentation   Mitigation & Compensation	Peste, F., Paula, A., Bernardino, J., Costa, H., Mascarenhas, M., Fonseca, C., Pereira, M.J. (2013). Off-site mitigation and compensation measures for bats at wind farms. Conference on Wind power and Environmental impacts. 5th to the 7th February 2013. Stockholm, Sweden.
2013	Oral presentation   Mitigation	Cordeiro, A., Mascarenhas, M., Costa, H. (2013). Long term survey of wind farms impacts on common kestrel's populations and definition of an appropriate mitigation plan. Conference on Wind power and Environmental impacts. 5th to the 7th February 2013. Stockholm, Sweden.
2012	Poster   Marine renewables impacts	Coelho, H., Ferreira, R., Rodrigues, S., De Silva, R., Pendlebury, C., Walls, R., Mascarenhas, M., Costa, H. (2012). Guidelines for offshore renewables in the Portuguese Pilot Zone based on a pre-construction assessment. NWCC Wind Wildlife Research Meeting IX. 27 to 30 Nov 2012. Denver, Colorado, EUA.
2012	Poster   Marine renewables impacts	Coelho, H., De Silva, R., Ferreira, R., Rodrigues, S., Pendlebury, C., Walls, R., Mascarenhas, M., Costa, H. (2012). Portuguese offshore renewables Pilot Zone – producing environmental guidelines for development. 4th International Conference on Ocean Energy. 17th to 19th October, 2012. Dublin, Ireland.
2012	Oral presentation   Ecology and Conservation	Ferreira, R., Marques, A.T., Zina, H., Santos, J., Silva, M.J., Mascarenhas, M., Costa, H. (2012). Monitorização da Comunidade de Aves Estepárias na ITI de Castro Verde [Steppe bird surveying at Castro Verde]. Seminar "Conservação das Estepes Cerealíferas". 7th and 8th November 2012. Castro Verde, Portugal.
2012	Oral presentation   Monitoring techniques	Faneca, C., Correira, R., Vieira, J., Bastos, C., Fonseca, C., Pereira, M.J., Mascarenhas, M., Costa, H., Bernardino, J. (2012). 3D reconstruction of bat trajectories from stereo vision. 18th Portuguese Conference on Pattern Recognition. 26 October 2012. Coimbra, Portugal.
2012	Proceedings   Marine renewables impacts	Coelho, H., Ferreira, R.; Rodrigues, S., De Silva, R., Pendlebury, C., Walls, R., Mascarenhas, M., Mesquita, S., Costa, H. (2012). First specific biodiversity assessment in the Portuguese Pilot Zone (PPZ). In Proceedings of the 32nd Annual Meeting of International Association for Impact Assessment (IAIA).
2012	Oral Presentation   Marine renewables impacts	Coelho, H., Ferreira, R., Rodrigues, S., De Silva, R., Pendlebury, C., Walls, R., Mascarenhas, M., Costa, H. (2012). First specific biodiversity assessment in the Portuguese Pilot Zone (PPZ). 32nd Annual Conference of the International Association for Impact Assessment (IAIA). Congress Center of Alfândega do Porto, Porto, 27th May to 1st June 2012.
2012	Oral presentation   Compensation & Mitigation	Santos, J., Marques, A. T., Paula, A., Bernardino, J., Mascarenhas, M., Costa, H. (2012). Compensation and off-site mitigation strategies for endangered Bonelli's Eagle populations in Wind Farms. VIIth Polish Wind Energy Association (PWEA) Conference & Exhibition. 22nd to the 23rd May 2012. Warsaw, Poland.
2012	Oral presentation   Mitigation	Santos, J., Marques, A.T., Paula, A., Costa, H., Mascarenhas, M. (2012). Reconciling wind farms with Bonelli's eagle populations using off-site mitigation techniques. 1st Iberian Congress on Wind Energy and Wildlife Conservation. 12th to the 14th January 2012. Jerez de la Frontera, Cadiz, Spain.
2012	Oral presentation   Wind Energy monitoring	Paula, J., Leal, M., Silva, M.J., Mascarenhas, R., Costa, H., Mascarenhas, M. (2012). A new weapon to find birds and bats carcasses in wind farms. 1st Iberian Congress on Wind Energy and Wildlife Conservation. 12th to the 14th January 2012. Jerez de la Frontera, Cadiz, Spain.
2012	Oral presentation   Biology	Ferreira, R., Marques, A.T., Zina, H., Santos, J., Silva, M.J., Mascarenhas, M., Costa, H. (2012). Monitoring the Steppe Bird Community at ITI Castro Verde. In Book of Abstracts from the Seminar "Conservação das Estepes Cerealíferas". 7th and 8th November 2012. Castro Verde, Portugal.
2012	Oral presentation   Ecology	Santos, J.; Marques, A. T.; Paula, A.; Bernardino, J.; Mascarenhas, M., Costa, H. (2012). Compensation and off-site mitigation strategies for endangered Bonelli's Eagle populations in Wind Farms. VIIth Polish Wind Energy Association (PWEA) Conference & Exhibition. 22 to 23 May 2012. Warsaw, Poland.
2012	Oral presentation   Ecology	Santos, J., Marques, A. T., Paula, A., Costa, H., Mascarenhas, M. (2012). Compensatory measures: the compatibility between wind farms and the conservation of the Bonelli's eagle. I Congreso Ibérico de Energía Eólica y Conservación de la Fauna. 12 to 14 january 2012. Jerez de la Frontera, Spain.
2012	Poster   Ecology	Santos, J., Marques, A.T., Paula, A., Mascarenhas, M., Costa, H. (2012). Implementation of compensation and offset measures for large birds of prey. NWCC Wind Wildlife Research Meeting IX. 27 to 30 november 2012. Denver, EUA.
2012	Poster   Ecology	Monteiro, B., Ferreira, R., Santos, J., Marques, A.T., Mascarenhas, M., Costa, H. (2012). Variation in bat activity in Portuguese uplands: effects of wind speed, temperature and moonlight in different biotopes. NWCC Wind Wildlife Research Meeting IX. 27 to 30 november 2012. Denver, EUA.
2012	Poster   Ecology	Monteiro, B., Ferreira, R., Santos, J., Marques, A. T., Mascarenhas, M., Costa, H. (2012). Variation in bat activity in Portuguese uplands: effects of wind speed, temperature and moonlight in different biotopes. I

farms: a practical overview of estimators, their assumptions and limitations. New Zealand Journal of

Correia, R., Faneca, C., Vieira, J.M.N., Bastos, C., Mascarenhas, M., Costa, H., Bernardino, J., Fonseca, C.,

analysis

2013 Proceedings |

Zoology, 40, 1: 63-74.

		Congreso Ibérico de Energía Eólica y Conservación de la Fauna. 12 to 14 january 2012. Jerez de la Frontera, Spain.
2012	Poster   Wind Energy impacts	Passos, I., Silva, M.J., Silva, M.R., Costa, H., Mascarenhas, M. (2012). Human project impacts on vegetation: coping with alien plant? 7th European Conference on Biological Invasions. 12 to 14 September. Pontevedra, Spain.
2012	Poster   Wind Energy impacts	Passos, I., Mesquita, S., Silva, M.J., Silva, M.R., Bernardino, J., Costa, H., Mascarenhas, M. (2012). Following aliens in Portuguese wind farms. 7th European Conference on Biological Invasions. 12 to 14 September. Pontevedra, Spain.
2012	Proceedings   Wind Energy Monitoring	Faneca, C., Correira, R., Vieira, J., Bastos, C., Fonseca, C., Pereira, M.J., Mascarenhas, M., Costa, H., Bernardino, J. (2012). 3D reconstruction of bat trajectories from stereo vision. In Proceedings of the 18th Portuguese Conference on Pattern Recognition. 26 October 2012. Coimbra, Portugal.
2012	Proceedings   Wind Energy Impacts	Bernardino, J., Bispo, R., Mascarenhas, M., Costa, H. (2012). Are we properly assessing bird and bat mortality at onshore wind farms? In Proceedings of the 32nd Annual Meeting of International Association for Impact Assessment (IAIA). 27th May to 1st June 2012. Porto, Portugal.
2012	Proceedings   Road impacts	Paula, J., Mesquita, S., Mascarenhas, M., Costa, H. (2012). SEA of a Road Network Plan: effects on wolf populations. In Proceedings of the 32nd Annual Meeting of International Association for Impact Assessment (IAIA). 27th May to 1st June 2012. Porto, Portugal.
2012	Proceedings   Wind Energy Impacts	Bernardino, J., Zina, H., Passos, I., Costa, H., Pereira, M. J., Fonseca, C., Mascarenhas, M. (2012). Bird and bat mortality at Portuguese wind farms. In Proceedings of the 32nd Annual Meeting of International Association for Impact Assessment (IAIA). 27th May to 1st June 2012. Porto, Portugal.
2011	Oral presentation   Wind Energy Impacts	Paula, A., Santos, J., Cordeiro, A., Costa, H., Mascarenhas, M., Reis, C. (2011). Managing habitat for prey recovery – an off-site mitigation tool for wind farms' impacts on top avian predators. Conference on Wind energy and Wildlife impacts. 2nd to the 5th May 2011. Trondheim, Norway.
2011	Oral presentation   Wind Energy Impacts	Cordeiro, A, Mesquita, S., Marques, A.T., Bernardino, J., Silva, M.J., Mascarenhas, M., Costa, H. (2011). What is the real impact of wind farms on biodiversity? Contribution of follow-up studies for the environmental impact assessment process. VI National Congress on Environmental Impact Assessment. 6th to the 8th April 2011. Albacete, Spain.
2011	Oral presentation   Ecology	Paula, A., Santos, J., Cordeiro, A., Costa, H. M., Mascarenhas, M, Reis, C. (2011). Managing habitat for prey recovery – an off-site mitigation tool for wind farms' impacts on top avian predators. Conference on Wind energy and Wildlife impacts. 2 to 5 May 2011. Trondheim, Norway.
2011	Poster   Ecology	Paula, J., Santos, J., Monteiro, B., Novais, R., Costa, H., Mascarenhas, M. (2011). Distribution and feeding ecology of the European Otter Lutra lutra in the area of influence of the future Alvito dam. X Congreso de la SECEM, 3 to 6 december 2011. Spain.
2011	Paper   Statistical analysis	Bernardino, J., Bispo, R., Torres, P., Rebelo, R., Mascarenhas, M., Costa, H., (2011). Enhancing carcass removal trials at three wind energy facilities in Portugal. In Wildlife Biology in Practice, 7(2): 1-14.
2011	Paper   Sampling methodologies	Paula, J., Leal, M.C., Silva, M.J., Mascarenhas, R., Costa, H., Mascarenhas, M. (2011). Dogs as a tool to improve bird-strike mortality estimates at wind farms. Journal for Nature Conservation, 19(4): 202-208.
2011	Technical magazine   Aquatic monitoring	Mascarenhas, M., Coelho, H. (2011). IFIM: metodologia para determinação do caudal ecológico [IFIM: a method for determining the ecological flow]. Renováveis Magazine 7. [in Portuguese]
2010	Oral presentation   Aquatic impacts	Bernardino, J., Puga, J., Leal, M., Mascarenhas, M., Costa, H., Reis, C. (2010). A Directiva Quadro da Água no contexto de Estudos de Impacte Ambiental de barragens: caso de estudo da barragem do Alvito [The Water Directive as a framework of the environmental impact assessment of dams: the case of the Alvito dam]. 4th edition of CNAI "Conferência Nacional de Avaliação de Impactes – Avaliação de Impactes e Energia: Água, Terra, Fogo e Ar?". 20th to the 22nd October 2010. Vila Real, Portugal. [in Portuguese]
2010	Oral presentation   Ecology	Paula, A., Cordeiro, A., Santos, J., Costa, H., Reis C., Mascarenhas, M. (2010). Three Years of Implementation of Compensatory Measures on Impacts on Endangered Species: What is the balance. 12th National Ecology Meeting, 18 to 20 october 2010. Oporto, Portugal.
2010	Oral presentation   Environmental Assessment	Mesquita, S., Bernardino, J., Mascarenhas, M., Costa, H., Roxo, A., (2010). A Avaliação de Planos segundo a Directiva Habitats: uma proposta metodológica [Appropriate Assessment according to the Habitats Directive: a methodological proposal]. 4ª Conferência Nacional de Avaliação de Impactes – Avaliação de Impactes e Energia: Água, Terra, Fogo e Ar? 20th to the 22nd October 2010. Vila Real, Portugal. [in Portuguese]
2010	Oral presentation   Wind Energy Impacts	Cordeiro, A., Mesquita, S., Marques, T., Silva, M.J., Rodrigues, N., Zina, H., Costa, H., Mascarenhas, M., (2010). Avaliação de impactes na componente biológica em parques eólicos: impactes previstos vs. impactes reais [Biological section of environmental impact assessment at wind farms: envisaged impacts vs. actual impacts]. 4th edition of CNAI "Conferência Nacional de Avaliação de Impactes - Avaliação de Impactes e Energia: Água, Terra, Fogo e Ar?" 20th to the 22nd October 2010. Vila Real, Portugal. [in Portuguese]
2010	Oral presentation I Wind Energy	Marques, T., Ferreira, R., Costa, H., Mascarenhas, M. (2010). Is it necessary to adjust a wind farm layout?  How to identify and minimize notential impacts on rantors and soaring birds. Wind Wildlife Research

How to identify and minimize potential impacts on raptors and soaring birds. Wind Wildlife Research

Bernardino, J., Mesquita, S., Marques, T., Cordeiro, A., Silva, M., Mascarenhas, M., Costa, H. (2010). Bird

and Bat Mortality data in portuguese Wind Farms – A cumulative analysis of 5 years of monitoring surveys.

populations in Wind Farms: a methodological protocol. 18th International Conference of the European Bird

Painel presented by Bio3 at "Nacional Wind Coordinating Collaborative (NWCC)". Denver, EUA.

2010 Oral presentation Marques, A.T, Bernardino, J., Costa, H., Mascarenhas, M. (2010). Following raptors and soaring birds

Meeting VIII. 19th to the 21st October 2010. Denver, Colorado, USA.

| Wind Energy

Energy impacts

| Wind Energy

Impacts

2010 Poster | Wind

		ccciniologics	20th March 2010. Algeciras, Spain.
,	2010	Oral presentation   Impact Assessment	Mesquita, S., Bernardino, J., Marques, T., Mascarenhas, M., Costa, H., (2010). Análise de risco como suporte à avaliação de impactes: metodologias aplicadas a vertebrados terrestres [Risk analysis to support environmental impact assessment: methods applied to terrestrial vertebrates]. 4th edition of CNAI "Conferência Nacional de Avaliação de Impactes – Avaliação de Impactes e Energia: Água, Terra, Fogo e Ar?" 20th to the 22nd October 2010. Vila Real, Portugal. [in Portuguese]
	2010	Oral presentation   Wind Energy Monitoring	Marques, A.T., Ferreira, R., Silva, M. J., Bernardino, J., Costa, H., Mascarenhas, M. (2010). Monitorização da comunidade de aves de rapina e planadoras em parques eólicos: uma proposta metodológica [Monitoring of the community of raptors and soaring in wind farms: a methodological proposal]. 12th edition of "Encontro Nacional de Ecologia". 18th to the 20th October 2010. Oporto, Portugal. [in Portuguese]
	2010	Oral presentation   Wind Energy Impacts	Paula, A., Cordeiro, A., Santos, J., Costa, H., Mascarenhas, M., Reis, C. (2010). Três anos de implementação de medidas de compensação de impactes sobre espécies ameaçadas: Qual o balanço? [Three years of implementation of compensation measures for impacts on endangered species: What is the balance?]. 12th edition of "Encontro Nacional de Ecologia". 18th to the 20th October 2010. Oporto, Portugal. [in Portuguese]
	2010	Oral presentation   Biodiversity Information Systems	Palminha, G., Costa, H., Mascarenhas, M. (2010). Biodiversity Information Systems: Examples of Data Management. Nature-SDIplus Conference "SDI for Nature Conservation", IGP. 28-29 September 2010. Lisbon, Portugal.
	2010	Oral presentation   Land management assessments	Mesquita S., Bernardino, J., Mascarenhas, M., Costa, H., Roxo, A. (2010). A Directiva Habitats e a Avaliação de Planos: uma proposta metodológica [Appropriate Assessment according to the Habitats Directive: a methodological proposal]. 1st edition of "Conferência da Rede de Língua Portuguesa de Avaliação de Impactos". Fundação Cidade de Lisboa. 16th to the 19th June 2010. Lisbon, Portugal. [in Portuguese]
	2009	Oral presentation   Ecology	Paula, A. Cordeiro, A. Santos. J. Mouchinho, C. Costa, H. Reis, C. Mascarenhas, M. (2009). Preliminary results of the implementation of the Methodological Protocol of the Compensatory Measures resulting from the EIA Process of the Mogadouro - Valeira Line Extension for the SE of Olmos (Macedo de Cavaleiro) at 220 kV. Final Workshop - PEAR. 18 december 2009, Portugal.
	2009	Oral presentation   Ecology	Paula, A., Cordeiro, A., Santos, J., Mascarenhas, M., Costa, H. (2009). Compensatory measures and the role they play in species conservation: Habitat Management and Monitoring of Ecosystems from the EIA Process of the project "Extension between the Mogadouro-Valeira line and the Olmos substation (Macedo de Cavaleiros), at 220 kV". 6th SPEA Ornithology Congress & 4th Iberian Congress of Ornithology. 5 to 8 december 2009. Elvas, Portugal.
	2009	Poster   Ecology	Santos, J., Paula, A., Costa, H., Mascarenhas, M., Mouchinho, C., Fonseca, F., Reis, C. (2009). Evaluation of the success of habitat management measures in the recovery of red-legged partridge Alectoris rufa L. populations in the Rio Sabor valley. 6th SPEA Ornithology Congress & 4th Iberian Congress of Ornithology, 5 to 8 december 2009, Elvas, Portugal.
	2009	Oral presentation   Wind Energy Monitoring	Mascarenhas, M., Paula, J., Santos, A., Lemos, A., Pacheco, F. (2009). The search and detection of bird and bat cadavers on wind farms. 8th International Seminar on Detection Dogs Registration – Canine Detection: 2012 and Beyond. 4-6 April 2009. London, UK.
	2009	Oral presentation   Other	Palminha, G., Costa, H., Mascarenhas, M. (2009). Bio3 and Manifold GIS. European Manifold User Meeting 2009, UCL. 15-17 February 2009. London, UK.
	2009	Oral presentation   Mitigation measures	Paula, A. Cordeiro, A. Santos. J. Moucinho, C. Costa, H. Reis, C. Mascarenhas, M. (2009). Resultados preliminares da implementação do protocolo Metodológico das Medidas Compensatórias decorrentes do Processo de AIA do Ramal da Linha Mogadouro - Valeira para a SE de Olmos (Macedo de Cavaleiro), a 220 kV [Preliminary results of the implementation of the Mitigation Measures Protocol under the Environmental Impact Assessment for the Mogadouro - Valeira power line and Olmos substation (Macedo de Cavaleiros), at 220 kV]. Final Workshop - PEAR. 18th December 2009. Portugal. [in Portuguese]
	2009	Oral presentation   Wind Energy & Power lines Impacts	Bernardino, J., Bispo, R., Torres, P., Rebelo, R., Mascarenhas, M., Costa, H. (2009). Qual o verdadeiro impacte dos parques eólicos e linhas eléctricas na avifauna? Avaliação das metodologias em uso e propostas para o seu aperfeiçoamento ["What's the real impact of wind farms and power lines on birds? Assessing the current methodologies and making proposals for its improvement"]. VI Congresso de Ornitologia da SPEA e IV Congresso de Ibérico de Ornitologia, SPEA e SEO. 5-8 December 2009. Elvas, Portugal. [in Portuguese]
	2009	Oral presentation   Compensation measures	Paula, A., Cordeiro, A., Santos, J., Mascarenhas, M., Costa, H. (2009). Medidas compensatórias e o papel que desempenham na conservação de espécies: A Gestão de Habitat e Monitorização de Ecossistemas Decorrentes da DIA do Projecto Ramal entre a linha Mogadouro-Valeira e a Subestação de Olmos (Macedo de Cavaleiros), a 220 kV ["Off-site mitigation and the role it plays on species conservation: habitat management and ecosystem monitoring regarding the construction of a Power Line in the North-eastern Portugal"]. VI Congresso de Ornitologia da SPEA e IV Congresso de Ibérico de Ornitologia, SPEA e SEO. 5-8 December 2009. Elvas, Portugal. [in Portuguese]
	2007	Oral presentation   Wind Energy Monitoring	Bernardino, J., Costa, H., Cardoso, P., Mascarenhas, M., Rebelo, R. (2007). Determining the mortality, scavenging removal and searcher efficiency rates in wind farms located in Aire and Candeeiros mountains, Portugal. II Meeting on Wind Energy and Nature Conservation 2007, Platform for the Rational Implementation of Wind Energy in Euskadi. 23-25 February 2007. Vitoria-Gasteiz, Spain.
	2005	Proceedings	Costa, H., Mascarenhas, M., Cardoso, P.E. (2005). Que estratégia de intervenção em áreas ecologicamente

Census Council, EBCC. 22-26 March 2010. Caceres, Spain.

20th March 2010. Algeciras, Spain.

2010 Oral presentation Palminha, G., Costa, H., Mascarenhas, M. (2010). Biodiversity tracking system from concept to

deployment. Argos user meeting at Bird Migration & Global Change, CLS – Collect Localisation Satellites.

Impacts

| Monitoring

technologies

Baseline

sensíveis? Estudos Ecológicos de Base: uma ferramenta integrada [Which intervention strategy should be Ecological Studies used in ecological sensitive areas? Baseline Ecological Studies: an integrated tool]. ENER'05 Conference on Renewable Energies and Environment in Portugal - the Portuguese situation in relation to the EU's goals. 5th to 7th May 2005. Figueira da Foz, Portugal. [in Portuguese]



# **CURRICULUM VITAE**



# NICHOLAS GEORGE WILTSHIRE

Tel: 082 303 7870 (c); 021 013 0131 (w)

E-mail addresses:

nic.wiltshire@ctsheritage.com

nic.wiltshire@cedartower.co.za

nic.wiltshire@openheritage.org.za

ID number: 7902225066083

#### **EDUCATION:**

- M.Sc., Archeology University of Cape Town (2011)
- B.Sc. (Honours), Archeology University of Cape Town (2005)
- B.Sc., Archeology and Environmental & Geographical Sciences University of Cape Town (2004)
- A+ and MCSE New Horizons, Bloemfontein (1999)
- Matric (Distinction) St Andrew's School, Bloemfontein (1997)

#### **EMPLOYMENT HISTORY:**

December 2013 - present : Cedar Tower Services (Pty) Ltd, Cape Town, South Africa

Position: Owner/Director

April 2015 - present : OpenHeritage, Cape Town, South Africa

Position : Founder

Responsibilities:



• Director of OpenHeritage, a non-profit organisation tasked with rolling out free open source heritage management systems to developing nations

**December 2013 - present :** Mothers2Mothers - AgeWell Global LLC, (pilot) through Cedar Tower Services Cape Town, South Africa

March 2015 - present : IT Services Consultant to m2m

Responsibilities:

Currently providing ongoing project support

December 2013 - December 2014 : AgeWell Global LLC Developer

Responsibilities:

• Drupal development of handheld recording system on smartphones and tablets for health data in the older persons sector

**November 2011 – November 2013 :** South African Heritage Resources

Agency (SAHRA) Cape Town, South Africa

Position: Project Manager & Developer: SAHRIS (The South African Heritage Resource Information System)

Responsibilities:

Design and implement South Africa's first national heritage management system. In summary this involves:

- Planning and selection of a suitable platform to develop SAHRIS
- Planning, selection, installation and setup of dedicated servers using Ubuntu Server OS
- Development of SAHRIS on the Drupal Platform
- Setup of a Geoserver to interface with Drupal
- Live Disaster Recovery Setup
- Installation and setup of mass storage devices (NAS Servers) across multiple data centres
- Setup of replication and backup
- Regular planning and assessment meetings with key stakeholders to outline future system improvements
- Training users, especially of SAHRA and the nine Provincial Heritage Resources Authorities,



#### and museums

- Creation of training videos and help documentation
- Implementation of the website theme designed by an outside graphic design company
- Data Migration of Sites, Objects, Media Content, Profiles, Reports
- Designing, planning and overseeing SAHRA's Digitisation
- Promotion of SAHRIS and production of peer reviewed articles

**November 2008 - June 2010 :** Heritage Western Cape Position : Senior Heritage Officer: Archaeology Responsibilities :

- Identify, protect and manage archaeological resources in the Western Cape
- Assess development applications, write policies, nominate sites for Provincial Heritage Site (grade 2) status
- Maintain and update GIS reporting database with SAHRA

Project Involvement: November 2008 – March 2009

- Designed, wrote and implemented database tracking system for applications and issuing of coded Records of Decision
- Implemented and maintained GIS system for archaeological sites, reports and provincial heritage sites
- Worked closely with SAHRA in bringing the GIS Reporting Project to its first release in November 2009
- Ran a workshop in July 2009 to allow all the practitioners in the province to see the demonstration of the database and the updated requirements of the system in terms of the minimum standards
- Involved monthly reporting and quarterly reporting to management as per government policies

**December 2007 – September 2011 (and intermittently prior) :** Archaeological Consultant, Independent

## IT Contractor & Research Assistant Project Involvement :

## African Climate & Development Initiative (ACDI), UCT, Cape Town, 2011

- Design of database system for the ACDI audit of projects, departments, people and research units engaged in climate change related research at UCT
- Pooled various GIS data repositories to initiate discussion around the impacts of CC on the



Cederberg Municipality and prepared the GIS groundwork for a demonstration presentation in May 2011

- Collaborated with the MAPA project to setup the structure for an online solution to hosting the UCT projects audit
- Was also involved in the Southern African Regional Universities Association (SARUA) meeting in March 2011 and presented a Google Earth mapping layer linked to the audit database to provide a possible solution to their collaboration framework. Involved in setup and maintenance of WordPress website for the ACDI and UCT steering committee for the Enterprise Content Management (ECM) project

### eastern Cederberg Rock Art Group (eCRAG), Western Cape, 2008

- Archaeological surveys for rock art and other archaeological sites from Wupperthal in the north to Op die Berg in the south of the Cederberg
- Contributed to three Conservation Management Plans handed to each owner for completed properties
- Current number of sites documented: 464
- Created and managed the photographic, digital report and GIS archive

# Just Fruit and Veg, Killarney Gardens (July 2008-January 2009, November 2010-February 2011) Spar Ordering System:

- Designed and implemented database system to run the Packing Sheets, Production Totals and automatic exports of the Spar Group's orders to JFV Pastel Accounting system
- The system also imports weekly price updates from their unique pricing system

## JFV Pricing System:

- Overhauled an Excel based pricing system which calculated suggested selling prices based on margins and cost inputs
- The new system tracks costs and selling price changes per product and is able to export the new prices across multiple price structures directly in Pastel
- Various choices can be manipulated to derive a new selling price and the database has been coded to prevent accidental errors which cropped up in the Excel based system that relied on macros

HIMAP - Historical Mapping Project, Cape Town, June 2009 - December 2009



- Digitally mapped the historical layers of the 18th century of Cape Town from various historical maps in a project with Dr Antonia Malan
- Combined archival data with the shape files so that various interpretative layers could easily be generated

### ACO Prestwich Place, Cape Town, April 2008 - August 2008

- Design and implementation of database system for the Prestwich Place burials
- This includes a GIS mapping of the data and a 3d modelling tool for point cloud data using VRML

## Iziko Museums, Cape Town, December 2007 - March 2008

• Design of interactive multimedia exhibit displayed in the rock art collection comprising a selection from the Bleek & Lloyd Archive and the Warmhoek rock art trail in Clanwilliam

## Masters (& partly Honours) Project at UCT, Cape Town, 2005, 2008-2011

- Design of database system for the SARU archaeological records
- This involved the digitisation of 10 000 slides and the organisation of all the digital photographs taken since 2001
- All the site records were physically scanned and typed up, mapped on GIS and linked relationally to my system
- Archive generated over 250 gigabytes of data

## Genex, Cape Town, July 2007 - October 2007

- Project managed the migration of the accounting systems from Accpac for Windows to Fincon Accounting
- Ran the Accounting department on a short term basis as caretaker before taking on another project at Ellies in Maputo, Mozambique

## Millennium Foods, Killarney Gardens, June 2007 Ordering System:

- Designed and implemented networked database system to capture EDI orders from Checkers and to automate standing orders from their other customers
- The system also exports these orders directly into Pastel Accounting and runs their packing and production reports



## Ellies Electronics, Cape Town, February - May 2006

- Project managed the migration of the accounting systems from Accpac (DOS version) to Fincon Accounting
- Setup and installed Windows NT server and email server

Kardex and Tracking Systems, Bloemfontein, November 1999 - February 2000

• Designed two database systems to track stock in a multi-company environment, produce dispatch labels and to automate tripsheets

## January - July 2007: Archaeological Contractor Responsibilities:

- Contract work undertaken for the Archaeological Contracts Office at UCT & Cape Archaeological Survey.
- Cape Nature Archaeological Survey Project from July 2007 December 2007.

### January 2006 - November 2007 : Fincon Position : IT Consultant Responsibilities :

- Training, installation and Accountancy services
- Main clients: Ellies Cape Town, Ellies Maputo, IT Outlook, Genex, Toshiba Central

#### 1998 - 2002 :

• Spent two full years as well as two short term periods working and travelling in Europe and the UK

#### REFERENCES:

Professor John Parkington, Supervisor at UCT 079 872 4807

Raymond Berkmann, Ellies Electronics, Cape Town 021 532 2225

Dr Janette Deacon, APM Committee, HWC, Cape Town 082 491 5067

Mamakomoreng Nkhasi EO, Corporate Affairs, SAHRA 021 462 4502

Dr Mitchell Besser, Mothers2Mothers, Cape Town 021 466 9160

Curriculum Vitae: Nikki Mann

#### PERSONAL DETAILS

Name & Surname Date of Birth Nikki Mann 13 October 1992

Location

Cape Town, Republic of South Africa

E-mail:

nikkimann13@gmail.com

Mobile number:

+27 78 140 2424

Nationality Gender Marital Status Home Language South African Female

Single English

**Other Languages** 

French (understanding)

#### **EDUCATION:**

#### **Tertiary**

2017

MSc Archaeology (phytolith analysis)

University of Cape Town

2014

**BSc Honours Archaeology** 

University of Cape Town

2011-2013

**Bachelor of Science (BSc)** 

University of Cape Town

Majors in Archaeology, and Environmental and Geographical Science

#### Archaeological Experience

- Gorras Farm, Northern Cape, South Africa: excavation of middens next to a corbelled building; Historical site (October 2018; supervised by Simon Lee Hall and UCT PhD student Ms Vuyiswa Thembelihile Lupuwana)
- Duties included excavation of middens and surface collection.
- Proposed development of boreholes and associated pipelines for the Langebaan Aquifer within the Hopefield Private Nature Reserve, Phase 2 Archaeological Impact Assessment (Phase 2 AIA). Hopefield, Western Cape.- Position: Archaeological specialist (August 2018).
- Koobi Fora Field School, Kenya: Intern, excavation of Early Stone Age (ESA) and Middle Stone Age (MSA) sites (June-July 2018; Directed by Dr David R. Braun, Kathryn Ranhorn (Postdoctoral Research Fellow at Harvard University) and Jonathan Reeves (PhD student at The George Washington University))
- Surveying, site recording (excavation forms, total station), monitoring and assisting students
- Data extraction to SAHRIS (South African Heritage Resource Agency) for CTS Heritage (April 2018)
- Matjiesfontein Road Extension Project, Phase 1 Archaeological Impact Assessment (Phase 1 AIA). Matjiesfontein, Western Cape. – Position: Archaeological Specialist (April 2018).
- Ledi-Geraru Research Project, Ethiopia: excavation of Early Stone Age (ESA) sites (February-March 2018; Directed by Dr David R. Braun)
- Recording features and finds, drawing, excavating, lab work

- Ferrycarrig, Irish National Heritage Park, Wexford, southeast Ireland: Excavation of ringwork castle site associated with the Anglo-Norman invasion of Ireland (January 2018; Directed by Dr Denis Shine and Dr Stephen Mandal)
- Recording features, excavating, drawing, lab work
- Duinefontein, Western Cape, South Africa: Field school tutor for University of Cape Town Undergraduates, on an Acheulean site (June 2016; Directed by Dr Deano Stynder)
- Duties included supervision of undergraduates, surveying, excavation and recording features and finds.
- Elandsfontein, Western Cape, South Africa: excavation of mid-Pleistocene site (February 2016; Directed by Dr David R. Braun)
- Excavating in 10cm spits, site recording
- Knysna Project (KEH-1), Western Cape, South Africa: excavation of Middle Stone Age (MSA) to Late Stone Age (LSA) cave site (July-Agust 2015; Directed by Prof Naomi Cleghorn)
- Site recording, excavating and analysing complex stratigraphy
- English Heritage, Open Palace Programme: (June-July 2015)
- Overview of heritage sites with focus on curatorial skills, conservation, education and interpretation
- Mertenhof Project, Western Cape, South Africa: excavation of MSA cave site (June 2015; Directed by Dr Alex Mackay)
- Site recording, excavating
- Duinefontein, Western Cape, South Africa: excavation of Acheulean site (February 2015; Directed by Dr Deano Stynder)
- Site recording, excavating in 10cm spits
- Elandsfontein, Western Cape, South Africa: Honours field work on a mid-Pleistocene site (February-March 2014; Directed by Dr David R. Braun)
- Excavating in 10cm spits, surveying, recording features and finds, processing data
- Elandsfontein, Western Cape, South Africa: Field school tutor for University of Cape Town Undergraduates, on a mid-Pleistocene site (January 2014; Directed by Dr David R. Braun)
- Duties included supervision of undergraduates, excavation and recording

### **Additional Information:**

- Member of the South African Archaeological Society, Western Cape Branch
- Member of the Association of Southern African Professional Archaeologists

#### **Computer Literacy**

- Quantum GIS application
- · Microsoft Office packages
- · Valid South African Driving Licence

#### **INTERESTS:**

Sports Squash, Long Distance Running, Hiking and Yoga.



•

Name Hlengiwe Innocentia Ntuli

**Profession** PPP Support and Administrator

Name of Firm SiVEST SA (PTY) LTD

Present Appointment Projects Secretary /

Support and PPP Administrator

Years with Firm 7 Years

Date of Birth 27 September 1989

**ID Number** 890927 02300 83

Nationality South African

#### **Education**

- Minerva High School (2002 2006)
- College Campus (2007-2009)

## **Professional Qualifications**

- Certificate in Contact Centre Support NQF2 (2010)
- Diploma in IT Programming (2007 2009)

## **Employment Record**

Jun 2012 – to date SiVEST SA (Pty) Ltd: Divisional Secretary / PPP Support and Administrator7

May 2009 - May 2012 DSG (PTY) LTD: Contact Centre Agent

## **Language Proficiency**

LANGUAGE	SPEAK	READ	WRITE
IsiZulu	Fluent	Fluent	Fluent
English	Fluent	Fluent	Fluent

**Years of Working Experience:** 7

## **Countries of Work Experience**

South Africa

## Field of Specialisation

- Office and Project Administration
  - PPP Administration and use of Maximiser
  - Filing electronically and paper copies
  - Faxing, scanning, emailing, phoning, printing and typing
  - Collecting of HR documents (timesheets, leave forms, expense, travel)
  - Reception and switchboard reliever
  - Document distribution
  - Travel arrangements
  - Purchasing and outsourcing





#### Overview

Hlengiwe joined SiVEST in 2012 and holds the position of Projects Secretary in the Johannesburg Office of SiVEST and assists in the general day to day administration of the organisation.

She has taken on the role of public participation process administrator which includes maintaining project database, arranging and coordinating public meetings as well as following up with organs of states to get comments on projects.

#### **Project Experience (By Sector)**

## **LINEAR PRJOECTS**

- Public Participation Process for the Proposed Construction of the Graskoppies On-site Eskom Substation, Linking Substation and Associated 132kV Power Line near Loeriesfontein, Northern Cape Province.
- Public Participation Process for the Proposed Construction of the Hartebeest Leegte On-site Eskom Substation, Linking Substation and Associated 132kV Power Line near Loeriesfontein, Northern Cape Province.
- Public Participation Process for the Proposed Construction of the Ithemba On-site Eskom Substation, Linking Substation and Associated 132kV Power Line near Loeriesfontein, Northern Cape Province.
- Public Participation Process for the Proposed Construction of the !Xha Boom On-site Eskom Substation, Linking Substation and Associated 132kV Power Line near Loeriesfontein, Northern Cape Province.
- Public Participation Process for the Proposed Refurbishment of the Swartberg Repeater Road near Ladismith, Western Cape Province
- Basic Assessment (BA) for Proposed Refurbishment of the Swartberg Repeater Road near Ladismith, Western Cape Province.

#### RENEWABLE ENERGY

- Basic Assessment (BA) for Proposed Development of the Tooverberg Wind Energy Facility (WEF) near Touws River, Western Cape Province.
- Public Participation Process for the Proposed Construction of the 325MW Rondekop Wind Energy Facility between Matjiesfontein and Sutherland, Northern Cape Province.
- Public Participation Process for the Proposed Development of the Mooi Plaats Solar Photovoltaic (PV) Energy Facility and Associated Infrastructure near Noupoort in the Northern Cape Province
- Public Participation Process for the Proposed Development of the Wonderheuvel Solar Photovoltaic (PV) Energy Facility and Associated Infrastructure near Noupoort in the Northern Cape Province
- Public Participation Process for the Proposed Development of the Paarde Valley Solar Photovoltaic (PV) Energy Facility and Associated Infrastructure near Middelburg in the Eastern Cape Province.
- EA Amendment Application for the Proposed Construction of a 132kV Power Line, the proposed Droogfontein Photovoltaic (PV) 3 Substation and the Extension to the Homestead Substation within the Sol Plaatje Local Municipality in the Northern Cape Province.
- EA Amendment Application for the Proposed Development of the Aletta 140MW Wind Energy Facility (WEF) and Associated Infrastructure near Copperton, Northern Cape Province.
- EA Amendment Application for the Proposed Construction of the Dwarsrug Wind Farm near Loeriesfontein, Northern Cape Province
- EA Amendment Application for the Proposed Development of the Beaufort West 140MW Wind Farm within the Prince Albert Local Municipality, Western Cape Province.
- EA Amendment Application for the Proposed Development of the Trakas 140MW Wind Farm within the Prince Albert Local Municipality, Western Cape Province



## **SUB-STATIONS**

- EA Amendment Application for the Proposed Construction of the Graskoppies On-site Eskom Substation, Linking Substation and Associated 132kV Power Line near Loeriesfontein, Northern Cape Province.
- EA Amendment Application for the Proposed Construction of the Hartebeest Leegte On-site Eskom Substation, Linking Substation and Associated 132kV Power Line near Loeriesfontein, Northern Cape Province.
- EA Amendment Application for the Proposed Construction of the Ithemba On-site Eskom Substation, Linking Substation and Associated 132kV Power Line near Loeriesfontein, Northern Cape Province.
- EA Amendment Application for the Proposed Construction of the !Xha Boom On-site Eskom Substation, Linking Substation and Associated 132kV Power Line near Loeriesfontein, Northern Cape Province.



John Richardson

Name John Richardson

**Profession** Environmental Assessment Practitioner

Name of Firm SiVEST SA (Pty) Ltd

Present Appointment Lead Environmental Scientist

Years with Firm Joined 1st November 2020

Date of Birth 18 June 1979

Nationality Dual British and South African

**ID No.** 790618 5131 084

#### **Education**

1996: Matric – Alexandra High School, Pietermaritzburg

• 2006: BSc (Geographical Science) – University of KwaZulu-Natal

2007: BSc Hons (Geography and Environmental Management) – University of KwaZulu-Natal

#### **Professional Qualifications**

BSc – Geographical Science

• BSc Honours - Environmental Management

## **Membership to Professional Societies**

• IAIAsa Membership Number 2143 – Previous National Executive Committee Member 2017-2019

## **Employment Record**

Nov 2020 – current SiVEST SA (Pty) Ltd: Environmental Division: Lead Environmental Scientist

Mar 2017 – Oct 2020 JG Afrika (Pty) Ltd: Associate

Jun 2012 – Mar 2017 JG Afrika (Pty) Ltd: Senior Environmental Scientist and GIS Specialist 2007 – 2012 Afzelia Environmental Consultants cc: Environmental Consultant

#### **Language Proficiency**

LANGUAGE	SPEAK	READ	WRITE
English	Fluent	Fluent	Fluent
Afrikaans	Fair	Fair	Fair
Danish	Basic	Basic	Basic

Years of Working Experience: 13 Years

## **Countries of Work Experience**

South Africa

Guinea, West Africa

## Fields of Specialisation

- Environmental Impact Assessment
- Geographic Information Systems (GIS)



#### **CURRICULUM VITAE**

John Richardson

#### Overview

John graduated from the School of Applied Environmental Sciences at the University of KwaZulu-Natal, Pietermaritzburg. After completing a BSc undergraduate degree in Geographical Sciences, a post-graduate BSc honours degree in Geography and Environmental Management was obtained. The latter is a multidisciplinary degree and included courses in Natural Resource Management and Sustainable Land Use, Applied Geomorphology, Environmental Modelling and Management, Advanced Remote Sensing and Geographic Information Systems (GIS). Mr Richardson's research project involved an investigation into the use of aerial photography and geographic information systems to study coastal forest loss along the KwaZulu-Natal north coast, for which he received an award for outstanding academic achievement. On completion of his postgraduate degree, was employed by Afzelia Environmental Consultants in the capacity of Environmental Scientist, specialising in the field of Geographic Information Systems.

Approximately thirteen years' professional experience as an environmental scientist and GIS specialist in a range of environmental and strategic planning projects, processes and applications for private, government and commercial clients. Mr Richardson has experience in conducting Environmental Screening Assessments, Basic Assessment, Scoping and Full Environmental Impact Assessment, and Section 24G compliance process under the 2006, 2010 & 2014 National Environmental Management: Environmental Impact Assessment Regulations, his experience includes Environmental Control Officer (ECO) site auditing duties and management of the GIS mapping requirements for several Biodiversity Sector Plans, Strategic Environmental Assessments, Environmental Management Frameworks and Strategic Environmental Management Plans.

Member of the International Association for Impact Assessment South Africa (IAIAsa) code of conduct and was between 2009 and 2017 a committee member of the KwaZulu-Natal branch. Elected in August 2014 as the IAIAsa KwaZulu-Natal Branch Chairman and severed as branch chairman for a two year term. In August 2017 was then elected to serve on the IAIAsa National Executive Committee for a two year term.

#### **Projects Experience (by Sector)**

#### STRATEGIC ENVIRONMENTAL MANAGEMENT AND GIS PROJECTS

- Ugu Biodiversity Sector Plan, Ugu District Municipality Ezemvelo KZN Wildlife
- Ugu Environmental Management Framework (Biodiversity) Ugu District Municipality Mott MacDonald
- Newcastle Environmental Management Framework Isibuko Development Planners Newcastle Municipality
- uThukela Biodiversity Sector Plan, uThukela District Municipality, KwaZulu-Natal Ezemvelo KZN Wildlife
- Zululand Biodiversity Sector Plan, Zululand District Municipality, KwaZulu-Natal Ezemvelo KZN Wildlife
- Impendle Strategic Environmental Management Plan Impendle Local Municipality

#### **AMENDMENT APPLICATIONS & POST AUTHORISATION REQUIREMENTS**

- Blackhurst Manor Estate, UMngeni Local Municipality, KwaZulu-Natal Blackhurst Manor (Pty) Ltd
- Stockowners Business Park Amendment to Environmental Authorisation Application, uMgungundlovu District Municipality, KwaZulu-Natal ET Properties
- Gates at Hilton Residential Development Application for Approval of Maintenance Management Plan for two Agricultural Dams, UMngeni Local Municipality Gwen's Stream Estate (Pty) Ltd
- Emanzini Eco Lodge Amendment to Environmental Authorisation, UMngeni Local Municipality Mount Verde (Pty) Ltd

## **ENVIRONMENTAL SCREENING & SCOPING ASSESSMENTS**

- Willowfontein Road, Msunduzi Local Municipality TLS Engineers and Project Managers
- Kinira Dam desktop Environmental Screening Report, Eastern Cape Jeffares and Green
- Manguzi Emergency Intervention Water Supply Project, uMkhanyakude District Municipality uMkhanyakude District Municipality
- Midmar Houseboat (Lady Sharon) Environmental Screening and Environmental Management Plan, uMgungundlovu District Municipality Tristan Taylor

#### **CURRICULUM VITAE**

John Richardson

- Elandskloof Irrigation Pipeline Environmental Screening Assessment, Theewaterskloof Local Municipality, Western Cape Dihlase Consulting Engineers
- NCF Church Environmental Screening Assessment, uMgungundlovu District Municipality NCF Church
- Environmental Screening Assessment on Portion 33/8 Mt Verde Estate, uMgungundlovu District Municipality, KwaZulu-Natal Kim Declercq
- Environmental Screening Assessment for Several Road and Footpath Upgrades within the Amaoti and Westbrook Areas, eThekwini Municipality - Nankoo Engineers on Behalf of the eThekwini Municipality
- Environmental Screening Assessment on Portion 30 & 31 Mt Verde Estate, uMgungundlovu District Municipality, KwaZulu-Natal - Mr Gerald Conway
- Environmental Screening Assessment for the University of KwaZulu-Natal Residences Westville Campus, eThekwini Municipality University of KwaZulu-Natal
- Portion 48 Mt Verde Estate, uMgungundlovu District Municipality, KwaZulu-Natal Mr & Mrs Le Roux
- 49 Mt Verde Estate, uMgungundlovu District Municipality, KwaZulu-Natal Mr Craig Parry
- Portion 26 Mt Verde Estate, uMgungundlovu District Municipality, KwaZulu-Natal Mr Garth Ellis
- Environmental Screening Assessment for the Emberton Residential Estate Layout Changes, Gillits, eThekwini Municipality Business Venture Investments (Pty) Ltd
- Environmental Screening Assessment on Portion 2 of 1 of The Farm Lot 1 No 1613, Umshwathi Municipality, KwaZulu-Natal Mr Andre Voigts
- Portion 64 of The Farm Hebron No. 914, UMngeni Local Municipality, KwaZulu-Natal Mr Anthony Crookes
- Portion 5 of 13013, Mt Verde Estate, UMngeni Local Municipality, KwaZulu-Natal Mr Clinton Ross
- The Farm Netherwood No 17610, UMngeni Local Municipality, KwaZulu-Natal Mr Renzo Scribante
- Environmental Screening Assessment for upgrades to the M13 Highway between Gillits and Westville, eThekwini Municipality SMEC on behalf of the KZN Department of Transport
- Environmental Screening Assessment for various Ablution Blocks and Sewer Reticulation projects for Interim Housing Services, eThekwini Municipality, KwaZulu-Natal - TLS Engineers (Pty) Ltd for eThekwini Municipality
- Sugar Blending Facilities, UMngeni Local Municipality, KwaZulu-Natal Millhouse Company (Pty) Ltd
- Hilton Life Hospital Sewer Treatment Works, UMngeni Local Municipality, KwaZulu-Natal Monzali Sludge Plant (Pty) Ltd
- Realignment of Acacia Drive in Mount Verde Estate, UMngeni Local Municipality, KwaZulu-Natal Mount Verde (Pty) Ltd
- Environmental Screening Assessment for the Kangela to Pongola National Route 2 Road Upgrade Project (150km Road Upgrade), Northern KwaZulu-Natal JG Afrika
- Environmental Screening Assessment for 8500 hectares of new Irrigation Schemes in Harry Gwala District Municipality, KwaZulu-Natal JG Afrika for Department of Rural Development and Land Reform
- Environmental Due Diligence Assessment of areas B, C and C2 of the approved Hilton Mondi, UMngeni Local Municipality, KwaZulu-Natal Mr Andre Voigts
- The Knoll Residential Development, UMngeni Local Municipality, KwaZulu-Natal Mark Manley
- Environmental Screening Assessment for the University of KwaZulu-Natal Residences Pietermaritzburg Campus, Msunduzi Municipality University of KwaZulu-Natal
- Environmental Screening Assessments for 11 separate rural road upgrade projects, Msunduzi Municipality, KwaZulu-Natal Henwood & Nxumalo on behalf of Msunduzi Municipality
- Emergency Repairs to Eastwood Pedestrian Bridge, Eastwood, uMgungundlovu District, KwaZulu-Natal -High End Construction (Pty) Ltd
- P2 Section 4 & P389 road rehabilitation and resurfacing, King Cetshwayo District Municipality, KwaZulu-Natal - Henwood & Nxumalo on behalf of the KZN Department of Transport
- Environmental screening assessment for a Point of Purchase Facility (printing, powder coating, steel fabrication, décor retail outlet, coffee shop in Oribi, Pietermaritzburg, uMgungundlovu District Municipality, KwaZulu-Natal - Business for Good Retail (BFG Retail)
- Community hall construction in Oribi, Pietermaritzburg, uMgungundlovu District Municipality, KwaZulu-Natal Henwood & Nxumalo on behalf of Msunduzi Municipality
- Hayfields Road alien invasive plant clearing, wetland maintenance management plan and screening assessment, Howick, uMgungundlovu District Municipality, KwaZulu-Natal Mr Peter Hallows
- P50 -2 Heavy road rehabilitation and resurfacing, Nkandla, uThungulu District Municipality, KwaZulu-Natal
   HN Consulting Engineers on behalf of the KZN Department of Transport

#### **CURRICULUM VITAE**

John Richardson

- Mangosuthu University of Technology campus access, internal road and parking designs, KwaZulu-Natal -LDM Engineers on behalf of Mangosuthu University of Technology
- eThekwini Incremental Services Projects: Installation of various roads and footpaths within informal settlements, KwaZulu-Natal HN Consulting Engineers on behalf of eThekwini Municipality
- Winston House Office Development, Gillitts, KwaZulu-Natal Mrs. S. Kramer
- Treasure Cove Housing Development, Hilton, KwaZulu-Natal Treasure Cove Trust
- Morton Haven Waterfront Residential and Recreational Resort, Midmar Dam, Umgeni Municipality Bruce Peattie, Confluence Property Company
- Ngwenya Sand Winning Project, Eston, KwaZulu-Natal Ngwenya Sand
- Cato Ridge Mixed Use Development, Cato Ridge, KwaZulu-Natal Andrew Barnes, Barnes Property
- Corndene Lakeside Resort, uMshwathi Local Municipality, KwaZulu-Natal
- Nondela Powerline Project, Tugela Valley, KwaZulu-Natal
- Old Halliwell, Howick, KwaZulu-Natal SSI Engineers and Environmental Consultants on behalf of the Developer

## SECTION 24G / ENVIRONMENTAL NON-COMPLIANCE ASSESSMENTS

- Environmental Non-Compliance requirements for Ptn 39 of Mt Verde Estate, uMgungundlovu District Municipality, KwaZulu-Natal Rob le Sueur
- Environmental Non-Compliance requirements for Ptn 38 of Mt Verde Estate, uMgungundlovu District Municipality Simon Dix
- Environmental Non-Compliance Investigations and Reporting Requirements on Portion 5 Farm Hooper 14147 Hibberdene, Ugu District Municipality Gerry Vermeulen
- Environmental Non-Compliance Investigations and Reporting Requirements on the Remainder of Erf 970 Port Edward, Ugu District Municipality, KwaZulu-Natal Craig Robertson
- Environmental Non-Compliance requirements for a dam constructed on Ptn 1, 2 and 3 of the Farm Riverholm in Nottingham Road, uMgungundlovu District Municipality, KwaZulu-Natal Clive Garlic
- Environmental Non-Compliance requirements on Voscham Stud for construction actives within a wetland and on the banks of the Mooi River in Nottingham Road, uMgungundlovu District Municipality, KwaZulu-Natal - Chris Vos
- Environmental Non-Compliance requirements for construction of a Tented Camp and Lapa area constructed on Portion 49 Mt Verde Estate, uMgungundlovu District Municipality Craig Parry
- Environmental Non-Compliance requirements for construction 8 Agricultural Dams on the Mt Verde Estate, uMgungundlovu District Municipality, KwaZulu-Natal Mount Verde (Pty) Ltd
- Environmental Non-Compliance requirements for construction of a Perimeter Fence Line on the Mt Verde Estate, uMgungundlovu District Municipality, KwaZulu-Natal Mount Verde (Pty) Ltd
- Environmental Non-Compliance requirements for dumping of process waste, uMgungundlovu District Municipality, KwaZulu-Natal Willowton Oil (Pty) Ltd
- Environmental Non-Compliance requirements for clearance of more than 1 hectare of indigenous vegetation and construction of a weir in a watercourse, PTN 45 Mount Verde Estate, uMgungundlovu District Municipality, KwaZulu-Natal George Sabatta
- Environmental Non-Compliance requirements for Maintenance of a Water Supply Dam at Hilton College, uMgungundlovu District Municipality, KwaZulu-Natal Hilton College
- Environmental Non-Compliance requirements for Construction of a 54 Metre High Steel Lattice Telecommunications Mast on Hilton College Estate, uMgungundlovu District Municipality, MTN
- Angels Way Airstrip and Skydiving Club, Eston, KwaZulu-Natal Howick Retirement Villages (Pty) Ltd

#### **ENVIRONMENTAL CONTROL OFFICER MONITORING AND AUDITING DUTIES**

- Bulk Service Installation for the Gates at Hilton Residential Development, Hilton, KwaZulu-Natal Gwens Stream Estate (Pty) Ltd for Hilton College School
- P368 Road Upgrade, Muden, KwaZulu-Natal Royal HaskoningDHV on behalf of the KZN Department of Transport (KZN DoT)
- Construction for the Qudeni Link Road, Qudeni, KwaZulu-Natal Royal HaskoningDHV on behalf of the KZN Department of Transport (KZN DoT)
- Upgrading of the Nsuze River Bridge, Qudeni, KwaZulu-Natal Royal HaskoningDHV on behalf of the KZN Department of Transport (KZN DoT)

#### **CURRICULUM VITAE**

John Richardson

- Ndumo Access Road Upgrade, Jozini, KwaZulu-Natal (South Africa) Royal HaskoningDHV on behalf of the KZN Department of Transport (KZN DoT)
- Bulk Service Installation for the Gates at Hilton Residential Development Phase 2, Hilton, KwaZulu-Natal
   Gwens Stream Estate (Pty) Ltd for Hilton College School
- Construction of Hilton Life Hospital, Hilton, KwaZulu-Natal A3 Architects (Pty) Ltd for Life Hospitals
- Construction of Hilton Health Doctors Suites, Hilton, KwaZulu-Natal Never Ending Trust (Pty) Ltd
- Mthandeni Agricultural Irrigation Project, Stanger, Ilembe District Municipality, KwaZulu-Natal East Coast Irrigation (Pty) Ltd
- Construction of the Emberton Residential Estate, Gillits, eThekwini Municipality, KwaZulu-Natal -Business Venture Investments (Pty) Ltd
- Ntuzuma Settlement and Housing Upgrade Project, eThekwini Metropolitan Municipality, KwaZulu-Natal
   LA Engineers for eThekwini Human Settlements
- Nkungumathe Agricultural Irrigation Project, Nkandla, uThungulu District Municipality, KwaZulu-Natal -Department of Rural Development and Land Reform (DRDLR)
- Mkhuphula Agricultural Irrigation Project, Nkandla, uThungulu District Municipality, KwaZulu-Natal Department of Rural Development and Land Reform (DRDLR)
- Cobblers Hill Housing Development, Nottingham Road, KwaZulu-Natal Mr. Basil Mayne
- D1130 Road Upgrade, Pietermaritzburg, KwaZulu-Natal SNA Engineers (Pty) Ltd
- Installation of a Sodium Hypochlorite (NaOCL) Bleach Plant, Cato Ridge, KwaZulu-Natal NCP Chlorchem (Pty) Ltd
- Willowfountain Stream Rehabilitation Works, Pietermaritzburg Msunduzi Local Municipality
- Wembezi Highway Interchange, Estcourt, KwaZulu-Natal Stedone on behalf of the South African National Roads Agency Limited (SANRAL)
- Ohlanga Pump station and Rising Main, KwaZulu-Natal Aurecon Group for eThekwini Municipality
- Moss Kolnick Interchange Upgrade, eThekwini, KwaZulu-Natal SSI Engineers and Environmental Consultants on behalf of the South African National Roads Agency Limited (SANRAL)
- Freightpak Warehouse Expansion, eThekwini, KwaZulu-Natal Freightpak (Pty) Ltd
- KwaMashu Wastewater Treatment Works Incinerator, eThekwini, KwaZulu-Natal Coal and Waste Utilisation (Pty) Ltd for eThekwini Water and Sanitation
- Bulk Connections Island View Coal Terminal, eThekwini, KwaZulu-Natal Bulk Connections (Pty) Ltd

#### SCOPING & FULL ENVIRONMENTAL IMPACT ASSESSMENT APPLICATIONS

- National Route 3: Key Ridge realignments and viaduct upgrades, eThekwini Municipality, KwaZulu-Natal (to Scoping Phase) - Ilifa-Leo JV on behalf of the South African National Roads Agency Limited (SANRAL)
- Relocation Action Plan for the establishment of a port at Konta village, Guinea, West Africa Bellzone
- Environmental and Social Impact Assessment for the 200km of haul road from Kalia to Yomboyeli in Guinea, West Africa Bellzone
- Langeberg / Bayhead New Arterial Road from Back of Port to N2, eThekwini Municipality, KwaZulu-Natal eThekwini Transport Authority
- Emberton Estate, Gillitts, KwaZulu-Natal
- Blackhurst Manor Residential Development, Midmar, KwaZulu-Natal Bruce Peattie, Blackhurst Manor Estate (Pty) Ltd
- Kingussie Land Cultivation Application, Nottingham Road, KwaZulu-Natal Turner Farming (Pty) Ltd

## BASIC ASSESSMENT ENVIRONMENTAL IMPACT ASSESSMENT APPLICATIONS

- Umgeni Tented Camp, UMngeni Local Municipality, KwaZulu-Natal Hi Zone
- Spioenkop-Ladysmith Regional Bulk Water Supply, uThukela District Municipality, KwaZulu-Natal WMN Consultancy (Pty) Ltd
- Hlabisa Rural Road Upgrade, Hlabisa Local Municipality, KwaZulu-Natal Mzansi Africa Civils
- Ashdown Stream Bank Rehabilitation, uMgungundlovu District Municipality, KwaZulu-Natal Msunduzi Municipality
- Stockowners Business Park Water and Sewage Supply Basic Assessment Application, uMgungundlovu District Municipality, KwaZulu-Natal ET Properties

#### **CURRICULUM VITAE**

John Richardson

- Ndumo Project 3 Road Upgrade from Ndumo to Ekuhlehleni (D1841, D1842, D1884), uMkhanyakude District Municipality, KwaZulu-Natal - Royal HaskoningDHV on behalf of the KZN Department of Transport (KZN DoT)
- Woodhouse Road Pedestrian Bridge, uMgungundlovu District Municipality, KwaZulu-Natal Msunduzi Municipality
- Nsezi Road Upgrade Project Richards Bay, KwaZulu-Natal uMhlathuze Water
- Hilton Dairy Residential Development, Hilton, uMngeni Local Municipality, KwaZulu-Natal Gwens Stream Estate (Pty) Ltd
- Mount Verde Phase 2 Residential Development, Hilton, uMngeni Local Municipality, KwaZulu-Natal -Mount Verde (Pty) Ltd
- Smozomeni Road Upgrade, KwaZulu-Natal Richmond Municipality
- Fawnlees Sand Mining Application for City Sands, uMzinyathi District Municipality City Sands (Pty) Ltd
- Upgrades to the M13 Highway between Gillits and Westville, Kwazulu-Natal SMEC on behalf of the KZN Department of Transport (KZN DoT)
- Proposed Establishment of a Truffle Farm, uMngeni Local Municipality, Kwazulu-Natal Dr Philip Hartwig
- Capacity Upgrades on the N2 between Umtentweni and Hibberdene Ugu District Municipality, Kwazulu-Natal - Ingerop on behalf of the South African National Roads Agency Limited (SANRAL)
- Capacity Upgrades on the National Route 2 between Mbizana and River and Marburg interchange Ugu District Municipality, Kwazulu-Natal - Madan Singh and Associates cc on behalf of the South African National Roads Agency Limited (SANRAL)
- Capacity Upgrades on the National Route 2 between Isipingo and Edwin Swales interchange's Mott Macdonald on behalf of the South African National Roads Agency Limited (SANRAL)
- Msenga Office Park, Gillitts, KwaZulu-Natal Msenga Developments Pty (Ltd)
- Hamilton Office Park, Gillitts, KwaZulu-Natal Whiteoaks Trading Pty (Ltd)
- Macambini Water Pipeline Project, Tugela Valley, KwaZulu-Natal Goba Consulting Engineers (Pty) Ltd
- Zuiwergoud Cultivation Project, Nottingham Road, KwaZulu-Natal J.J. van de Velde
- Umlazi Urban Framework Development Plan Upgrade, eThekwini Metropolitan Municipality, KwaZulu-Natal - eThekwini Municipality Strategic Projects Department
- Amber Valley Retirement Village Extension, KwaZulu-Natal Howick Retirement Villages (Pty) Ltd
- Willowfountain Stream Rehabilitation Works, PMB, KwaZulu-Natal Msunduzi Local Municipality
- Ndumo Road Upgrade, Jozini Local Municipality SSI Engineers
- Ballito Interchange Upgrade, Ballito, KwaZulu-Natal Vela VKE Engineers on behalf of the South African National Roads Agency Limited (SANRAL)
- National Route 2 Flood Protection Works, Riverhorse Valley eThekwini Metro, KwaZulu-Natal UWP Consulting Engineers on behalf of the South African National Roads Agency Limited (SANRAL)
- Willowfountain Gravel Road Upgrade, Edendale, KwaZulu-Natal Msunduzi Local Municipality
- National Route 11 Interchange Upgrade, Ladysmith, KwaZulu-Natal SSI Engineers and Environmental Consultants on behalf of the South African National Roads Agency Limited (SANRAL)
- Amber Ridge Residential Estate, Howick, KwaZulu-Natal Dr Vaughn Armstrong
- Umlaas Road Warehousing, Camperdown KwaZulu-Natal Collins Property Group
- Makhabeleni Bulk Water Supply Project, uMzinyathi District Municipality MSW Consulting Engineers
- Sundumbili Bulk Water Supply Project, Mandeni Local Municipality, KwaZulu-Natal SSI Engineers

#### **Computer Literacy**

- Microsoft Windows platforms
- Microsoft Office Suites including Office 365
- Google Earth
- ESRI ArcGIS Desktop 10.7 suites
- Drone Deploy & Pix4D Capture
- Web Open Drone Mapper (WebODM) Image and Orthophoto Processing and 3D Modelling (Open source software)
- Wondershare Filmora video and photo editing platform

2020 (July)

## SIVEST

## **CURRICULUM VITAE**

John Richardson

## **Courses / Conferences / Workshops**

•	2008 (November)	- Real World EIA (Training Course)
•	2013 (September)	- IAIAsa National Conference 2013 (Delegate)
•	2014 (September)	- IAIAsa National Conference 2014 (Delegate)
•	2014 (November)	- New Techniques and Methods in EIA (Workshop)
•	2015 (February)	- 2014 EIA Regulations in Context (Seminar)
•	2015 (October)	- IAIAsa National Conference 2015 (Delegate)
•	2016 (July)	- Department of Water Affairs c & i Training (Workshop)
•	2017 (February)	- IAIAsa & EDTEA EIA Regulations Overview (Seminar)
•	2017 (May)	- Introduction to Geosynthetics (Training Course)
•	2017 (May)	- Filtration & Drainage with Geosynthetics (Training Course)
•	2017 (September)	<ul> <li>The Role of GIS in Integrated Environmental Management (IEM-ENV 322 Lecture University of KZN (Presenter)</li> </ul>
•	2018 (May)	- IAIA18 International Conference: Environmental Justice in Societies in Transition (Delegate)
•	2018 (September)	- The Role of GIS in Integrated Environmental Management (IEM-ENV 322 Lecture University of KZN (Presenter)
•	2019 (August)	- IAIAsa National Conference 2019
•	2020 (July)	- Post COVID, why Drones, Digitization, and Artificial Intelligence are needed now more than ever (South African Institute of Civil Engineers Webinar

Training / Workshop)
- Hydropedology: The Why & How (IAIAsa Webinar Training)



Kerry Lianne Schwartz

Name Kerry Lianne Schwartz

Profession GIS Specialist

Name of Firm SiVEST SA (Pty) Ltd

Present Appointment Senior GIS Consultant:

**Environmental Division** 

Years with Firm 30 Years

Date of Birth 21 October 1960

**ID No.** 6010210231083

Nationality South African



BA (Geography), University of Leeds 1982

#### **Membership to Professional Societies**

South African Geomatics Council - GTc GISc 1187

## **Employment Record**

1994 – Present
 1988 - 1994
 1984 – 1988
 1984 – 1988
 1988 - 1994
 1984 – 1988
 SiVEST (formerly Scott Wilson Kirkpatrick): Town Planning Technician.
 Development and Services Board, Pietermaritzburg: Town Planning Technician.

#### **Language Proficiency**

LANGUAGE	SPEAK	READ	WRITE
English	Fluent	Fluent	Fluent

### **Key Experience**

Kerry is a GIS specialist with more than 20 years' experience in the application of GIS technology in various environmental, regional planning and infrastructural projects undertaken by SiVEST.

Kerry's GIS skills have been extensively utilised in projects throughout South Africa in other Southern African Countries. These projects have involved a range of GIS work, including:

- Design, compilation and management of a demographic, socio-economic, land use, environmental and infrastructural databases.
- Collection, collation and integration of data from a variety of sources for use on specific projects.
- Manipulation and interpretation of both spatial and alphanumeric data to provide meaningful inputs for a variety of projects.
- Production of thematic maps and graphics.
- Spatial analysis and 3D modelling, including visual and landscape assessments.





Kerry Lianne Schwartz

#### **Projects Experience**

#### STRATEGIC PLANNING PROJECTS

Provision of database, analysis and GIS mapping support for the following:

- Water Plan 2025: Socio-economic, Land Use and Demographic Update Umgeni Water (KwaZulu-Natal).
- Eskom Strategic Plan Eskom (KwaZulu-Natal).
- Umgeni Water Quality Management Plan Department of Water Affairs and Umgeni Water (KwaZulu-Natal).
- KwaZulu-Natal Development Perspective Department of Economic Affairs (KwaZulu-Natal).
- Indlovu Regional Integrated Plan Department of Local Government and Housing (KwaZulu-Natal).
- Umgeni Water and Sanitation Needs Analysis Umgeni Water (KwaZulu-Natal).
- Metro Waste Water Management Plan Durban Waste Water management, City of Durban (KwaZulu-Natal).
- KwaZulu-Natal Electrification Prioritisation Model Eskom (KwaZulu-Natal).
- Umzinyathi Regional Development Plan Umzinyathi Regional Council (KwaZulu-Natal).
- GIS driven model to assess future population growth in quaternary catchments under different growth scenarios – Umgeni Water (KwaZulu-Natal).
- Ubombo Master Water Plan Study Mhlathuze Water Board (KwaZulu-Natal).
- Development strategy for local economic development and social reconstruction of the Germiston-Daveyton Activity Corridor Eastern Gauteng Services Council (Gauteng).
- Land identification study for low cost housing in the Indlovu Region Indlovu Regional Council (KwaZulu-Natal).
- Local Development Plan for Manzini Manzini Town Council (Swaziland).
- Database development for socio-economic and health indicators arising from Social Impact Assessments conducted for the Lesotho Highlands Development Association – Lesotho.
- Development Plan for the adjacent towns of Kasane and Kazungula Ministry of Local Government, Land and Housing (Botswana).
- Development Plan for the rural village of Hukuntsi Ministry of Local Government, Land and Housing (Botswana).
- Integrated Development Plans for various District and Local Municipalities including:
  - Nquthu Local Municipality (KwaZulu-Natal)
  - Newcastle Local Municipality (KwaZulu-Natal)
  - Amajuba District Municipality (KwaZulu-Natal)
  - Jozini Local Municipality (KwaZulu-Natal)
  - Umhlabuyalingana Local Municipality (KwaZulu-Natal)
- uMhlathuze Rural Development Initiative uMhlathuze Local Municipality (KwaZulu-Natal).
- Rural roads identification uMhlathuze Local Municipality (KwaZulu-Natal).
- Mapungubwe Tourism Initiative Development Bank (Limpopo Province).
- Northern Cape Tourism Master Plan Department of Economic Affairs and Tourism (Northern Cape Province).
- Spatial Development Framework for Gert Sibande District Municipality (Mpumalanga) in conjunction with more detailed spatial development frameworks for the 7 Local Municipalities in the District, namely:
  - Albert Luthuli Local Municipality
  - Msukaligwa Local Municipality
  - Mkhondo Local Municipality

Kerry Lianne Schwartz

- Pixley Ka Seme Local Municipality
- Dipaleseng Local Municipality
- Govan Mbeki Local Municipality
- Lekwa Local Municipality
- Land Use Management Plans/Systems (LUMS) for various Local Municipalities including:
  - Nkandla Local Municipality (KwaZulu-Natal)
  - Hlabisa Local Municipality (KwaZulu-Natal)
  - uPhongolo Local Municipality (KwaZulu-Natal)
  - uMshwathi Local Municipality
- Spatial Development Framework for uMhlathuze Local Municipality (KwaZulu-Natal).
- Spatial Development Framework for Greater Clarens Maloti-Drakensberg Transfrontier Park (Free State).
- Land use study for the Johannesburg Inner City Summit and Charter City of Johannesburg (Gauteng).
- Port of Richards Bay Due Diligence Investigation Transnet
- Jozini Sustainable Development Plan Jozini Local Municipality (KwaZulu-Natal)
- Spatial Development Framework for Umhlabuyalingana Local Municipality (KwaZulu-Natal)

#### **BUILT INFRASTRUCTURE**

- EIA and EMP for a 9km railway line and water pipeline for manganese mine Kalagadi Manganese (Northern Cape Province).
- EIA and EMP for 5x 440kV Transmission Lines between Thyspunt (proposed nuclear power station site) and several substations in the Port Elizabeth area – Eskom (Eastern Cape Province).
- Initial Scoping for the proposed 750km multi petroleum products pipeline from Durban to Gauteng/Mpumalanga Transnet Pipelines.
- Detailed EIA for multi petroleum products pipeline from Kendall Waltloo, and from Jameson Park to Langlaagte Tanks farms –Transnet Pipelines.
- Environmental Management Plan for copper and cobalt mine (Democratic Republic of Congo).
- EIA and Agricultural Feasibility study for Miwani Sugar Mill (Kenya).
- EIAs for Concentrated Solar and Photovoltaic power plants and associated infrastructure (Northern Cape, Free State, Limpopo and North West Province).
- EIAs for Wind Farms and associated infrastructure (Northern Cape and Western Cape).
- Basic Assessments for 132kV Distribution Lines (Free State, KwaZulu-Natal, Mpumalanga and North West Province).
- Environmental Assessment for the proposed Moloto Development Corridor (Limpopo).
- Environmental Advisory Services for the Gauteng Rapid Rail Extensions Feasibility Project.
- Environmental Screening for the Strategic Logistics and Industrial Corridor Plan for Strategic Infrastructure Project 2, Durban-Free State-Gauteng Development Region.

## STATE OF THE ENVIRONMENT REPORTING

- 2008 State of the Environment Report for City of Johannesburg.
- Biodiversity Assessment City of Johannesburg.

## STRATEGIC ENVIRONMENTAL ASSESSMENTS AND ENVIRONMENTAL MANAGEMENT FRAMEWORKS

• SEA for Greater Clarens – Maloti-Drakensberg Transfrontier Park (Free State).



Kerry Lianne Schwartz

- SEA for the Marula Region of the Kruger National Park, SANParks.
- SEA for Thanda Private Game Reserve (KwaZulu-Natal).
- SEA for KwaDukuza Local Municipality (KwaZulu-Natal).
- EMF for proposed Renishaw Estate (KwaZulu-Natal).
- EMF for Mogale City Local Municipality, Mogale City Local Municipality (Gauteng).
- SEA for Molemole Local Municipality, Capricorn District Municipality (Limpopo).
- SEA for Blouberg Local Municipality, Capricorn District Municipality (Limpopo).
- SEA for the Bishopstowe study area in the Msunduzi Local Municipality (KwaZulu-Natal).

#### **WETLAND STUDIES**

- Rehabilitation Planning for the Upper Klip River and Klipspruit Catchments, City of Johannesburg (Gauteng).
- Wetland assessments for various Concentrated Solar and Photovoltaic power plants and associated infrastructure (Limpopo, Northern Cape, North West Province and Western Cape).
- Wetland assessments for Wind Farms and associated infrastructure (Northern Cape and Western Cape).
- Wetland assessments for various 132kV Distribution Lines (Free State, KwaZulu-Natal, Mpumalanga and North West Province).

#### VISUAL IMPACT ASSESSMENTS

- VIA for the Thyspunt Transmission Lines Integration Project (Eatern Cape).
- VIA s for various Solar Power Plants and associated grid connection infrastructure (Northern Cape, Free State, Limpopo and North West Province).
- VIAs for various Wind Farms and associated grid connection infrastructure (Northern Cape and Western Cape), the most recent projects including:
  - Graskoppies, Hartebeest Leegte, Ithemba and !Xha Boom Wind Farms near Loeriesfontein (Northern Cape);
  - o Kuruman 1 and 2 WEFs near Kuruman (Northern Cape);
  - o San Kraal and Phezukomoya WEFs near Noupoort (Northern Cape);
  - Paulputs WEF near Pofadder (Northern Cape)
  - Kudusberg WEF near Matjiesfontein (Western Cape);
  - o Tooverberg WEF, near Touws River (Western Cape);
  - o Rondekop WEF, near Sutherland (Northern Cape).
- VIAs for various 132kV Distribution Lines (Free State, KwaZulu-Natal, Mpumalanga and North West Province).
- VIA for the proposed Rorqual Estate Development near Park Rynie on the South-Coast of KwaZulu-Natal Province.
- VIA for the proposed Assagay Valley Mixed Use Development (KwaZulu-Natal).
- VIA for the proposed Kassier Road North Mixed Use Development (KwaZulu-Natal).
- VIA for the proposed Tinley Manor South Banks Development (KwaZulu-Natal).
- VIA for the proposed Tinley Manor South Banks Beach Enhancement Solution, (KwaZulu-Natal).
- VIAs for the proposed Mlonzi Hotel and Golf Estate Development (Eastern Cape Province).
- Visual sensitivity mapping exercise for the proposed Mogale's Gate Lodge Expansion (Gauteng).
- Analysis phase visual assessment for the proposed Renishaw Estate Environmental Management Framework in the Scottburgh Area (KwaZulu-Natal).
- Landscape Character Assessment for Mogale City Environmental Management Framework (Gauteng).



Name Liandra Scott-Shaw (neé Bertolli)

**Profession** Environmental Scientist

Name of Firm SiVEST SA (Pty) Ltd

Present Appointment Environmental Consultant

Years with Firm 5 Years

Date of Birth 08 March 1986

Nationality South African

**ID No.** 8603080022083



Matric Exemption (Natal Education Department) Durban Girls High School (2002-2003)

#### **Professional Qualifications**

- Bachelor of Science (Biological Science): University of KwaZulu-Natal, 2008
- Bachelor of Science (Honours) Ecological Science: University of KwaZulu-Natal, 2009
- Pr.Sci.Nat. Registration No. 117442

## **Membership to Professional Societies**

- South African Council for Natural Scientific Professions (SACNASP)
- Royal Society of South Africa 2010-Present
- International Association for Impact Assessment South Africa (IAIAsa)

#### **Employment Record**

Jan 2014 - date	SiVEST SA (PTY) LTD – Environmental Division: Environmental
	Consultant

Jun 2013 - Dec 2013 ECO-PULSE Environmental Consulting Services - Internship

Jan 2010 - Jan 2013 University of the North West (Diatom collection, process and

analysis)

Jan 2012 - Dec 2012 John Bews Herbarium, (Geo referencing specimen)

Feb 2006 - June 2013 University of KwaZulu-Natal (Laboratory and field assistant for the

School of Biological and Conservation Science, Demonstrating and

Lecturing in Biology and Biogeography)

## **Language Proficiency**

LANGUAGE	SPEAK	READ	WRITE
English	Fluent	Fluent	Fluent
Afrikaans	Basic	Basic	Basic

**Years of Working Experience:** 6

#### **Countries of Work Experience**

South Africa



## Field of Specialisation

- Plant biodiversity assessments
- Alien plant identification/management
- Diatom diversity assessments
- Field identification
- · Taxonomical background
- Report writing
- NEMA and NEM:BA regulations and policies

#### Overview

Liandra has completed a Bachelor of Science Degree in Biological Science (University of KwaZulu-Natal, PMB), a Bachelor of Science (Honours) in Ecological Science (University of KwaZulu-Natal, PMB) and is completing her Master of Science Degree in Environmental Science (University of KwaZulu-Natal, PMB), of which the focus is on Diatoms as indicators of wetland water quality in the KZN Midlands.

Liandra has been involved in consulting since 2013, which included biodiversity assessments and analyses as well as report writing. Prior to that, Liandra had been involved in academic research and demonstrating/lecturing since 2008.

## **Projects Experience (by Sector)**

#### VEGETATION ASSESSMENTS, REHABILITATION PLANS AND PERMIT APPLICATIONS

- Ntunjambili Bulk Water Supply Scheme
- Eshowe SSA1 Pipeline Project
- Bishopstowe Development Area
- Dube TradePort State of Environment Report
- Transnet Richards Bay Port Development Vegetation Assessment
- Transnet South Dune Vegetation Assessment
- Umsunduzi Greater Edendale Environmental Management Framework
- Sumitomo Rubber Manufacturing Plant Vegetation Assessments, Alien Plant Management Plan And Plant Permits
- Umgeni Water Darvill Constructed Wetland Vegetation Assessment
- P75-2 Road Upgrade Vegetation Assessment
- Masinege Sewer Line Vegetation Permits
- Tongaat Hulett Cornubia North Development Vegetation Assessment
- Tongaat Hulett Lindokuhle Housing Development Vegetation Assessment
- Tongaat Hulett Simhlangentsha Pipeline Vegetation Assessment
- Tongaat Hulett Dudley Pringle Development Vegetation Assessment
- Tongaat Hulett Maidstone Mill Development Vegetation Assessment
- Arcelor Mittal Newcastle Works Alien Plant Management Plan
- Umgeni Water Umshawathi Pipeline Vegetation Assessment
- ACSA GCS Diatom Sampling
- Mandeni Cemetery Vegetation Assessment
- Fountain Hill Development Vegetation Assessment
- Salt Rock Development Vegetation Assessment
- Colenso Coal Project
- Strode Property Development Vegetation Assessment
- Tongaat Hulett Tinley Manor South Wetland Assessment (vegetation)
- Tongaat Hulett Tinley Manor North Wetland Assessment (vegetation)
- Umgeni Water South Coast Pipeline Vegetation Assessment, Plant Permits
- Swayimane Bulk Water Pipeline
- Westbrook Club Development Vegetation Assessment
- Eskom Candover Mbazwana Vegetation Assessment and Plant Permits



- Eskom Eshowe Electrification Vegetation Assessment and Plant permits
- Eskom Empangeni Electrification Vegetation Assessment and Plant permits
- Eskom Jozini Electrification Vegetation Assessment and Plant permits
- Eskom Electrification Vegetation Assessment and Plant permits
- Eskom Nsele Godi Electrification Vegetation Assessment and Plant permits
- Eskom Makhatini Electrification Vegetation Assessment and Plant permits
- Eskom Esicabazeni Electrification Vegetation Assessment and Plant permits
- Ethekwini Hammarsdale Electrification Vegetation Assessment
- Shemula Pipeline Vegetation Assessment and Plant permits
- Ezakheni Housing Vegetation Assessment
- Ashton College Vegetation Assessment
- eThekwini Metropolitan Marianridge Housing Development Vegetation Assessment
- Edendale Town Centre Development Vegetation Assessment
- N2 Pongola Ecological Studies Vegetation Assessment
- Sani Pass Hotel Upgrades Vegetation Assessment
- Eskom Lake Eland Vegetation Assessment and Plant permits
- Eskom Phungashe Phase 3 Vegetation Assessment and Plant permits
- Eskom Bhanbanani Vegetation Assessment and Plant permits
- Eskom Sunduza Vegetation Assessment and Plant permits
- Eskom TC Xumalo Vegetation Assessment and Plant permits
- Eskom Cwakeme Vegetation Assessment and Plant permits
- Eskom Mambane Vegetation Assessment and Plant permits
- Eskom Nkangala Vegetation Assessment and Plant permits
- Eskom Estcourt Permits Vegetation Assessment and Plant permits
- Eskom Emahusheni Permits Vegetation Assessment and Plant permits
- Eskom Mamfene Permits Vegetation Assessment and Plant permits
- Eskom Qwabe Permits Vegetation Assessment and Plant permits
   Eskom BA Khumalo Permits Vegetation Assessment and Plant permits
- Eskom Zululand Melmoth Vegetation Assessment and Plant permits
- Eskom Muller Helgardt Permits Vegetation Assessment and Plant permits
- Eskom Zamazama Permits Vegetation Assessment and Plant permits
- World Tomorrow Fund South Bank Permits Vegetation Assessment and Plant permits

#### **ENVIROMENTAL CONTROL OFFICER**

- Eskom Candover-Mbazwana Powerline
- Lombardskop Pipeline
- Zimbali Lakes Golf Course
- Fitty Park Water Pipeline
- Driefontein Phase 1 Water Pipeline
- Middledrift SSA5 Water Pipeline
- Lower Tugela Bulk Water Off-take 12
- Lower Tugela Bulk Water Off-take 10
- Lower Tugela Bulk Water Off-take 1
- Lower Tugela Bulk Water Off-take 11
- Mpumulanga Unit G Development
- Maphumulo (Invutshane Dam) Phase 2 Pipeline

## BASIC ASSESSMENTS / ENVIRONMENTAL IMPACT ASSESSMENTS

- La Mercy Integrated Human Settlement Development
- Waterval Prison Upgrade Project
- Greater Kokstad Bulk Raw Water Upgrade Project
- Dube TradePort Agrizone 2
- D1562 Road Upgrade BA
- Mthandeni Irrigation Extension Project
- Shemula Bulk Raw Water Phases 2 6 BA
- Izinga Phase 3 BA



- Zimbali Estate Properties BA
- Cornubia Portion 14 Petrol Filling Station
- South Coast Pipeline BA
- Swayimane Bulk Water BA
- Mswhathi Pipeline (Amendment)
- Compensation Organic Waste Facility
- Sumitomo Rubber Manufacturing Plant
- Darvill Constructed Wetland
- Dube Tradeport Agrizone 2
- Chansbury Poultry Farm

#### **STRATEGIC PROJECTS**

- Greater Edendale Area EMF
- Bishopstowe Development Area SEA
- Ray Nkonyeni Municipality SEA
- Dube TradePort State of Environment Report (SoER)

#### MANAGEMENT PLANS

Phinda Private Game Reserve Maintenance Management Plan

#### **Academic Contributions**

Lang P, Taylor J, Bertolli L, Lowe S, Dallas H, Kennedy MP, Gibbins C, Sichingabula H, Saili, Day J, Willems F, Briggs JA and Murphy KJ 2013. Proposed procedure for the sampling, preparation and analysis of benthic diatoms from Zambian rivers: a bioassessment and decision support tool applicable to freshwater ecoregions in tropical southern Africa. Africa, Caribbean, Pacific- European Union Project Report.

Martins S, Kennedy M, Lowe S, Lang P, Briggs J, Dallas H, Taylor J, Bertolli L, Gibbins C, Soulsby C, Day J, Sichingabula H, Saili H, Kapungwe E, Willems F, Mbulwe F, Murphy K. 2013. SAFRASS Methodology Manual.

Shrader AM, Bell C, Bertolli L and Ward D 2012. Forest or the trees: at what scale do elephants make foraging decisions? Acta Oecologica 42: 3-10.

Lang P, Taylor J, Bertolli L, 2012. River diatom biodiversity assessments in Zambian rivers: a SAFRASS conservation perspective. European Congress of Conservation Biology, Glasgow.

Martins S, Kennedy M, Lowe S, Lang P, Briggs J, Dallas H, Taylor J, Bertolli L, Gibbins C, Soulsby C, Day J, Sichingabula H, Saili H, Kapungwe E, Willems F, Mbulwe F, Murphy K. 2012. SAFRASS Photographic guide to the Aquatic Macroinvertebrates of Zambia. European Union Project Report.

Martins S, Kennedy M, Lowe S, Lang P, Briggs J, Dallas H, Taylor J, Bertolli L, Gibbins C, Soulsby C, Day J, Sichingabula H, Saili H, Kapungwe E, Willems F, Mbulwe F, Murphy K. 2012. SAFRASS Guide to Common Diatoms. European Union Project Report.

Martins S, Kennedy M, Lowe S, Lang P, Briggs J, Dallas H, Taylor J, Bertolli L, Gibbins C, Soulsby C, Day J, Sichingabula H, Saili H, Kapungwe E, Willems F, Mbulwe F, Murphy K. 2012. SAFRASS Macrophyte Identification Manual.

## Conferences and workshops

SAFRASS Diatom Genera Guide Workshop 2013

Programa de Avaliação de Rios no Sul de África (SAFRASS): estabelecimento de uma estrutura de investigação na construção de capacidade para promoção da saúde e biodiversidade dos rios africanos.



Martins S, Kennedy M, Lowe S, Lang P, Briggs J, Dallas H, Taylor J, Bertolli L, Gibbins C, Soulsby C, Day J, Sichingabula H, Saili H, Kapungwe E, Willems F, Mbulwe F, Murphy K. *14th Congr. Bras. Limnol., Bonito, Brasil,* Sept. 2013

SAFRASS biomonitoring scheme: general aspects, macrophytes (ZMTR) and benthic macroinvertebrates (ZISS) protocols 2013

SAFRASS Training Introduction May 2012: Helen Dallas

SAFRASS Decision Support Scheme (DSS) to assist the use of river health biomonitoring protocols in Zambia: general aspects, invertebrates (ZISS) and macrophytes (ZMTR) components 2012

SAFRASS Training Macrophytes May 2012 Mike Kennedy 2012

SAFRASS Training Invertebrates May 2012 Steven Lowe

SAFRASS Training Diatoms May 2012 Jonathan Taylor

Shrader AM, Bell C, **Bertolli L** and Ward D 2011. Forest or the trees: at what scale do elephants make foraging decisions? *Ezemvelo KZN Wildlife Contemporary Conservation Symposium*.

SAFRASS Proposed procedure for the sampling, preparation and analysis of benthic diatoms from Zambian rivers: a bioassessment and decision support tool applicable to freshwater ecoregions in tropical southern 2011

SAFRASS Assessment of performance of the SAFRASS pilot river biomonitoring scheme 2011

Date of Birth: 12 July 1984

Profession: Development Economist
Specialisation: Western Cape Special Unit

Years within Firm: 6 Years Nationality: RSA

HDI Status: White Male



Education:			
University of South Africa (2009 - 2013)		Bachelor of Arts: Honours. (Psychology)	
University of South Africa (2004 - 2008)		Bachelor of Business Administration: Business and Psychology	
Language Proficiency:	Reading	Writing	Speaking
English	Excellent	Excellent	Excellent
Afrikaans	Average	Average	Below Average

#### **Work Experience:**

Urban-Econ	2013 -Current	Development Economist
Smith Tabata Buchanan	Contract work: 2006, 2007, 2009 – 2013)	Administartive Assistant
Boyes		

## **Key Qualification:**

Marcel obtained his degree in Bachelor of Business Administration majoring in both psychology and business in 2008. In 2013 Marcel completed his Honours in Psychology at the University of South Africa. Since his time here, Marcel has obtained experience in property studies, socio-economic impact assessments and general market research, etc. Marcel functions well within a team, is hardworking and has excellent communication skills when dealing with people.

Experience Record	
Project:	Pelican Park Socio-Economic Impact Assessment
Year:	2020
Location:	Cape Town
Client:	GIBB
Project features:	Socio-Economic Impact Analysis
Position held:	Team leader/ researcher
Activities Performed:	Urban-Econ Development Economists was appointed by GIBB Ltd to undertake a Socio-Economic Impact Study. The aim of the social impact assessment is to investigate and describe the social and economic environment surrounding the proposed development site and to identify possible impacts that could affect the environment as required by the Environmental Impact Assessment Guidelines and Legislature.
Project:	Tronox Mine Socio-Economic Impact Assessment
Year:	2020
Location:	Matzikama Local Municipality
Client:	Envass
Project features:	Socio-Economic Impact Analysis
Position held:	Team leader/ researcher
Activities Performed:	Urban-Econ Development Economists was appointed by Envass Ltd to undertake a Socio-Economic
	Impact Study. The aim of the social impact assessment is to investigate and describe the social and economic environment surrounding the proposed development site and to identify possible impacts that could affect the environment as required by the Environmental Impact Assessment Guidelines and Legislature.





Project: Piketberg Filling Station Socio-Economic Impact Assessment

Year: 2019/ 2020 Location: Piketberg

Client: PBPS – Environmental and Water License Consultants

Project Features: Socio-Economic Impact Analysis
Position held: Team leader/ researcher

Activities Performed: Urban-Econ Development Economists was appointed by PBPS – Environmental and Water License

Consultants to undertake a Socio-Economic Impact Study. The aim of the social impact assessment is to investigate and describe the social and economic environment surrounding the proposed development site and to identify possible impacts that could affect the environment as required by

the Environmental Impact Assessment Guidelines and Legislature.

Project: Langebaan Truck Stop and Filling Station Socio-Economic Impact Assessment

Year: 2019

Location: Saldanha Bay Local Municipality

Client: Guillaume Nel Environmental Consultants

Project Features: Socio-Economic Impact Analysis

Position held: Team leader/ researcher

Activities Performed: Urban-Econ Development Economists was appointed by Headland Planners to undertake a Socio-

Economic Impact Study. The aim of the social impact assessment is to investigate and describe the social and economic environment surrounding the proposed development site and to identify possible impacts that could affect the environment as required by the Environmental Impact Assessment

Guidelines and Legislature.

Project: Schulz Vlei Socio-Economic Impact Assessment

Year: 2019
Location: Cape Town
Client: Headland Planners

Project Features: Socio-Economic Impact Analysis

Position held: Team leader/ researcher

Activities Performed: Urban-Econ Development Economists was appointed by Headland Planners to undertake a Socio-

Economic Impact Study. The aim of the social impact assessment is to investigate and describe the social and economic environment surrounding the proposed development site and to identify possible impacts that could affect the environment as required by the Environmental Impact Assessment

**Guidelines and Legislature.** 

Project: Bella River Socio-Economic Impact Assessment

Year: 2019 Location: Cape Town

Client: Guillaume Nel Environmental Consultants

Project features: Socio-Economic Impact Analysis

Position held: Team leader/ researcher

Activities Performed: Urban-Econ Development Economists was appointed by Guillaume Nel Environmental Consultants to

undertake a Socio-Economic Impact Study. The aim of the social impact assessment is to investigate and describe the social and economic environment surrounding the proposed development site and to identify possible impacts that could affect the environment as required by the Environmental

Impact Assessment Guidelines and Legislature.

Project: Harbour Arch
Year: 2018
Location: Cape Town
Client: Amdec

Project features: Impact Analysis and Market Overview

Position held: Researcher

Activities Performed: Amdec aims to utilise the study as an economic and social motivation for the application to the City

of Cape Town for the facilitation of procuring land use rights pertaining to an erf in Cape Town. In order to motivate the procurement of land use rights pertaining to the erf it is important for the client to demonstrate the economic and social benefits that will be unlocked as the result of the proposed development. The purpose of the report was to provide an overview of the potential impacts

as a result of the development of Harbour Arch.





Project: Baseline Socio-Economic Impact Assessment: Propsed Expansion of Crude Oil Jetty and Construction

of Associated Pipeline

Year: 2017

Location: Saldanha Bay Local Municipality

Client: Advisian

Project Features: Baseline Scoping Report

Position held: Main researcher

Activities Performed: This document is prepared by Urban-Econ Development Economists, as requested by Advisian on

behalf of Oiltanking MOGS Saldanha (RF) (Pty) Ltd, to undertake a specialist socio-economic impact analysis for the expansion of the proposed crude oil jetty and construction of associated pipeline systems. Activities performed included demographic profiling, policy reviews, trend analysis and

preliminary impact assessment, etc.

## **Other Projects:**

Hindle Road Mixed Use Development Socio-Economic Impact Assessment

- Terra Nominees Socio-Economic Impact Assessment
- Gordons Bay Residential Socio-Economic Impact Assessment
- Annandale Socio-Economic Impact Assessment
- Kronos PV Facility Socio-Economic Impact Assessment
- Veld PV (North and South) Energy facility Socio-Economic Impact Assessment
- Wolf Socio-Economic Impact Assessment
- Cape Agulhas Mixed Use Development Socio-Economic Impact Assessment

#### **Countries of Work Experience:**

South Africa

#### **References:**

Alex Kempthorne Email: alex@urban-econ.com Cell Phone: +27 (0) 84 417 1808

**Contact Details:** 

Marcel Theron Email: <a href="marcel@urban-econ.com">marcel@urban-econ.com</a> Cell Phone: +27 (0) 72 216 7050



FEN 21-0034 July 2020



## SAS ENVIRONMENTAL GROUP OF COMPANIES SPECIALIST CONSULTANT INFORMATION -

#### **CURRICULUM VITAE OF STEPHEN VAN STADEN**

#### **PERSONAL DETAILS**

Position in Company Managing Member, Group CEO, Water Resource Discipline Lead,

Ecologist, Aquatic Ecologist

Date of Birth 13 July 1979 South African **Nationality** Languages English, Afrikaans

Joined SEGC 2003 (year of establishment)

Other Business Trustee of the Serenity Property Trust

#### MEMBERSHIP IN PROFESSIONAL SOCIETIES

Registered Professional Scientist at South African Council for Natural Scientific Professions (SACNASP) Accredited River Health Practitioner by the South African River Health Program (RHP)

Member of the South African Soil Surveyors Association (SASSO) Member of the Gauteng Wetland Forum Member of the Gauteng Wetland Forum;

Member of International Association of Impact Assessors (IAIA) South Africa;

Member of the Land Rehabilitation Society of South Africa (LaRSSA)

#### **EDUCATION**

## Qualifications

MSc Environmental Management (University of Johannesburg) BSc (Hons) Zoology (Aquatic Ecology) (University of Johannesburg) BSc (Zoology, Geography and Environmental Management) (University of Johannesburg)	2003 2001 2000
Short Courses	
Integrated Water Resource Management, the National Water Act, and Water Use Authorisations, focusing on WULAs and IWWMPs	2017
Tools for Wetland Assessment (Rhodes University)	2017
Legal liability training course (Legricon Pty Ltd)	2018
Hazard identification and risk assessment training course (Legricon Pty Ltd)	2018
Wetland Management: Introduction and Delineation (WLID1502S) (University of the Free State)	2018

Hydropedology and Wetland Functioning (TerraSoil Science and Water Business Academy)



2018

FEN 21-0034 July 2020

#### **CORE FIELDS OF EXPERTISE**

#### Legislative Requirements, Processes and Assessments

- Water Use Applications (Water Use Licence Applications / General Authorisations)
- Environmental and Water Use Audits
- Freshwater Resource Management and Monitoring as part of EMPR and WUL conditions

#### **Freshwater Assessments**

- Freshwater (wetland / riparian) Delineation and Assessment
- Freshwater Eco Service and Status Determination
- Rehabilitation Assessment / Planning
- Maintenance and Management Plans
- Plant Species and Landscape Plans
- Freshwater Offset Plans
- Hydropedological Assessment
- Pit Closure Analysis

## **Aquatic Ecological Assessment and Water Quality Studies**

- Habitat Assessment Indices (IHAS, HRC, IHIA & RHAM)
- Aquatic Macro-Invertebrates (SASS5 & MIRAI)
- Fish Assemblage Integrity Index (FRAI)
- Fish Health Assessments
- Riparian Vegetation Integrity (VEGRAI)
- Toxicological Analysis
- Water quality Monitoring
- Screening Test
- Riverine Rehabilitation Plans

## **Biodiversity Assessments**

- Floral Assessments
- Biodiversity Actions Plan (BAP)
- Biodiversity Management Plan (BMP)
- Alien and Invasive Control Plan (AICP)
- Ecological Scan
- Terrestrial Monitoring
- Biodiversity Offset Plan

#### **Soil and Land Capability Assessment**

- Soil and Land Capability Assessment
- Hydropedological Assessment

## **Visual Impact Assessment**

- Visual Baseline and Impact Assessments
- Visual Impact Peer Review Assessments



## **Annexure A - SPECIALIST EXPERTISE**

Dr Brett Williams Name of Organization: Position in Firm:	Safetech Owner
Date of Birth:	21/04/1963
Years with Firm:	25
Nationality:	South African
MEMBERSHIP OF PROFESSIONAL BOD	DIES
<ul> <li>Southern African Institute of Occup</li> <li>Institute of Safety Management</li> <li>Mine Ventilation Society</li> <li>National Clean Air Association</li> </ul>	pational Hygienists
BIOGRAPHICAL SKETCH	
measuring noise related impacts since 1996. Brett Elizabeth. He has consulted to many different indust	ty and Environmental Management since 1987. He has been is the owner of Safetech who have offices in Pretoria and Portries including, mining, chemical, automotive, food production etc. It Chamber of Mines to measure environmental stressors, which cal stresses.
PROJECT EXPERIENCE	

Dr Williams has been assigned to various projects to assess environmental noise impacts.

The list below presents a selection of Brett Williams' project experience, relevant to noise:



- Arcus Gibb Kouga Wind Energy Project
- CSIR Umgeni Water Desalination Plant
- CSIR Saldanha Desalination Plant
- CSIR Atlantis Gas to Power Project (current)
- CSIR Walvis Bay Port Extension
- CSIR Noise Impact Study of Namwater Desalination Plant
- CSIR Kouga Wind Energy Project – Background Noise Measurements
- CSIR Kouga Wind Energy Project
- CSIR Wind Current Wind Energy Project
- CSIR Langefontein Wind Energy Project
- CSIR Mossel Bay Wind Energy Project
- CSIR Coega IDZ Wind Energy Project
- CSIR Baakenskop Wind Energy Project
- CSIR Biotherm Wind Energy Project
- CSIR Innowind Mossel Bay
- CSIR Langefontein Wind Energy Project
- CSIR Bulk Manganese Terminal (Port of Ngqura)
- CSIR Phyto Amandla Biodiesel Project
- CSIR Vleesbaai Wind Energy Project
- CES Coega IDZ Gas to Power Project (Current)
- CES Coega IDZ Wind Energy Project
- CES Middleton Wind Energy Project
- CES Waainek Wind Energy Project
- CES Ncora Wind Energy Project
- CES Qunu Wind Energy Project
- CES Nqamakwe Wind Energy Project

- CES Plan 8 Wind Energy Project
- CES Qumbu Wind Energy Project
- CES Peddie Wind Energy Project
- CES Cookhouse Wind Energy Project
- CES Madagascar Heavy Minerals
- CES Richards Bay Wind Energy Project
- CES Hluhluwe Wind Energy Project
- CEN Kwandwe Airport Development Project
- CEN Swartkops Manganese Project
- CEN N2 Petro Port Project



- Crown Chickens The independent report review of a noise specialist report conducted as part of an EIA to establish a new broiler farm.
- BMW The evaluation of the impact of the Rosslyn production facilities on the surrounding community.
- Victory Race Track Specialist noise report conducted as part of an EIA to establish a new stock car racing track.
- Continental Tyre The evaluation of the impact of production facilities on the surrounding community.
- Media 24 The measurement portion of an investigation on the impact of a printing press on a local community. The main study was conducted by the University of Stellenbosch.
- Zwartebosh Quarry Specialist noise report conducted as part of an EIA to establish a new quarry.
- Milo Granite Specialist noise report conducted as part of an EIA to establish a new quarry.
- Dunlop Tyres The evaluation of the impact of production facilities on the surrounding community.
- Sasol Secunda Independent report review of a noise specialist report conducted to determine the impact of production facilities on the surrounding community.
- Barlow World Coatings The evaluation of the impact of production facilities on the surrounding community.
- Western Platinum Refinery The evaluation of the impact of production facilities on the surrounding community.

## TERTIARY EDUCATION

- PhD University of Pretoria (Environmental Management)
- Various Health & Safety Courses.
- National Diploma Health & Safety Management
- Harvard University Applications of Industrial Hygiene Principles including noise
- United States EPA Pollution Measurement course conducted at the University Of Cincinnati (EPA Training Centre)
- US EPA Air Dispersion Modelling Training Course
- Master of Business Administration (University of Wales) with dissertation on environmental reporting in South Africa.
- Environmental Auditor (ISO 14001:2004)

.....