

## **CURRICULUM VITAE**

David Barry Hoare, B.Sc. (Hons), M.Sc., Pr.Nat.Sci., SAIE&ES (Professional member)

### **Contact details**

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### **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 (in progress) – Nelson Mandela Metropolitan University, Port Elizabeth, "Patterns and determinants of plant biodiversity in temperate, mesic grasslands of South Africa" under supervision of Prof. Richard Cowling

### **Main areas of specialisation**

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

### **Courses**

Soil Classification Competence Certificate, Dept. of Agriculture, 1994.  
Environmental Law Course, Potchefstroom University for CHE, 1999.  
Environmental Management Systems (ISO 14001) Course, Potchefstroom University for CHE, 1999.  
ERDAS Imagine software course (No. ES02/04/ERDASIM), Geographic Information Management Systems (Pty) Ltd, Midrand, 2002.

### **Membership**

Professional Natural Scientist, South African Council for Natural Scientific Professions, 16 August 2005 – present. Reg. no. 400221/05  
Professional member: South African Institute of Ecologists and Environmental Scientists, 10 July 2001 – present.

### **Employment history**

1 February 1998 – 30 November 2004, Researcher, Agricultural Research Council, Range and Forage Institute, Private Bag X05, Lynn East, 0039. Duties: project management, general vegetation ecology, remote sensing image processing, environmental management.  
1 December 2004 – present, Member, David Hoare Consulting cc no. 2001/034446/23. Consultant, specialist consultant contracted to a number of existing companies and organisations.

### **Project experience at ARC**

Vegetation pattern in Piliansberg National Park using digital photogrammetric data preparation techniques, 1 August – present.  
VegMap digital mapping and description of vegetation units of Eastern Cape for new national vegetation map (Dept. of Environmental Affairs and Tourism/National Botanical Institute) and contributions to text and vegetation descriptions in accompanying booklet.

Classification and mapping of the savanna biome of South Africa using remote sensing techniques, 1 February 1998 – 20 November 1999.  
Natural resource survey of nodes O R Tambo and Maputoland, using remote sensing techniques, 1 November 2001 – December 2003.  
Field data collection for National Land Cover Change Project, Dec 2003 – March 2004.  
Vegetation survey of KwaMhlanaga Landcare site, March 2004.  
Scale physiognomic survey of Suikerbosrand Nature Reserve, 1 March 1998 – 1 April 1998.  
Natural resource survey of Mpumalanga, South Africa, using remote sensing techniques, 1 November 1998 – 2000.  
Vegetation of the corridor of the proposed ESKOM powerline from Port Elizabeth to Bedford. September 2000.  
National land cover change mapping and monitoring – development of guidelines, protocols and recommendations for a national mapping project, 1 June 2000 – 30 November 2000.

**Publication record:**

**Refereed scientific articles (in chronological order):**

**Journal articles:**

- HOARE, D.B.** & BREDEKAMP, 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, BREDEKAMP, 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.** & BREDEKAMP, 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.

**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. Maputoland-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. Maputoland-Pondoland-Albany Hotspot. <http://www.biodiversityhotspots.org/xp/hotspots/maputoland/>.
- 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., BREDEKAMP, 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 palaeontological hypotheses on vegetation distributions*; Paper presentation, Randse Afrikaanse Universiteit postgraduate symposium, 1997
- HOARE, D.B., VICTOR, J.E. & BREDENKAMP, G.J. *Historical and ecological links between grassy fynbos and afro-montane 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.

**Consulting reports:**

Total of 119 specialist consulting reports for various environmental projects from 1995 – 2006.

Hoare, D.B. 2006. Kopanong Local Municipality Commonage Management Plan: desktop ecological assessment, for ARC-Animal Production, P.O. Box 101 Grahamstown 6140.

Hoare, D.B. 2006. Ecological study of the proposed Atteridgeville Extension 36 & 37 housing developments on a portion of Portion 294 of the farm Pretoria Town and Townlands 351 JR, Pretoria, Tshwane, Gauteng, for ARCUS GIBB (Pty) Ltd, Rivonia, 2128.

Hoare, D.B. 2006. Ecological study of the proposed Brentwood Holding 82, 83 & 85 housing developments, Benoni, Gauteng, for ARCUS GIBB (Pty) Ltd, Rivonia, 2128.

Hoare, D.B. 2006. Ecological study of the proposed Dersley Extension 2 housing developments on the remainder of Portion 213 of the farm Geduld 123 IR, Springs, Ekurhuleni, Gauteng, for ARCUS GIBB (Pty) Ltd, Rivonia, 2128.

Hoare, D.B. 2006. Ecological study of the proposed Norton Park Extension 13, Benoni, Gauteng, for ARCUS GIBB (Pty) Ltd, Rivonia, 2128.

Hoare, D.B. 2006. Ecological investigation of the proposed new ESKOM powerline from Garona to Aries, Northern Cape, for Tswelopele Environmental Services (Pty) Ltd

Hoare, D.B. 2006. Ecological investigation of the proposed new ESKOM powerline from Garona to Aries, Northern Cape, for Tswelopele Environmental Services (Pty) Ltd

Hoare, D.B. 2006. Ground-truthing of Modderfontein EMF sites to identify good quality grasslands, Gauteng, for Environomics.

Hoare, D.B. 2006. Ecological study of the proposed Latilla Limestone Mine on the farm of n the farm of Kraalhoek 399KQ, North-West Province, for Prime Resources (Pty) Ltd, PO Box 2316, Parklands, 2121

Hoare, D.B. 2006. Ecological study of the proposed extension and construction of a water pipeline across Rhenosterhoekberg for UraniumOne Africa: Dominion Reefs near Rietkuil, North-west Province, for Prime Resources (Pty) Ltd, PO Box 2316, Parklands, 2121

Hoare, D.B. 2006. Ecological study of the proposed township development on Portions 9, 62, 66, 69, 78, 80 and 81 of Vlakhoogte 30IR, Benoni, Gauteng, for Shakti Environmental Services.

- Hoare, D.B. 2006. Flora and vegetation study of sensitive sites identified during scoping of the proposed Petronet pipeline from Kendal, Mpumalanga, to Waltloo, Gauteng, for SiVEST Environmental Division, PO Box 2921, Rivonia, 2128.
- Hoare, D.B. 2006. Flora and vegetation study of sensitive sites identified during scoping of the proposed Petronet pipeline from Alrode to Langlaagte, Gauteng, for SiVEST Environmental Division, PO Box 2921, Rivonia, 2128.
- Hoare, D.B. 2006. Flora and vegetation study of the proposed township development on Portion 159 of the farm Diepkloof 319IQ, Soweto, Gauteng, for SiVEST Environmental Division, PO Box 2921, Rivonia, 2128.
- Hoare, D.B. 2006. Survey of alien invasive species occurring on Anglo Platinum Rustenburg Mines (Union Section) mine property and recommendations for the control of potentially problematic species, for De Castro & Brits Environmental Consultants
- Hoare, D.B. 2006. Programme for the control of alien invasive plant species occurring at Anglo Platinum Rustenburg Mines (Union Section) mine property and recommendations for the control of potentially problematic species, for De Castro & Brits Environmental Consultants
- Hoare, D.B. 2006. Survey of the vegetation of the proposed new residential township development on portion 45 of the farm Finaalspan 114-IR, Brakpan (Gauteng), for De Castro & Brits Environmental Consultants
- Hoare, D.B. 2006. Ecological survey of the Greenside Colliery Mine area (Mpumalanga), for De Castro & Brits Environmental Consultants
- Hoare, D.B. 2006. Baseline vegetation survey of a 198ha portion of the farm Hennopsrivier 489 JQ near Centurion (Gauteng), for De Castro & Brits Environmental Consultants
- Hoare, D.B. 2006. Ecological survey of the proposed Styldrift shaft complex for Bafokeng Rasimone Platinum Mine, North-West Province, for De Castro & Brits Environmental Consultants
- Hoare, D.B. 2006. Ecological survey of the site of the proposed Stones River Arch township development near Klipriversberg, Johannesburg, Gauteng, for De Castro & Brits Environmental Consultants
- Hoare, D.B. 2006. Ecological survey of the site of the Tweefontein Mine area, Mpumalanga, for De Castro & Brits Environmental Consultants
- Hoare, D.B. 2006. Ecological study of the proposed surface expansion of Black Wattle Colliery, Middleburg, Mpumalanga, for Wetland Consulting Services (Pty.) Ltd., P.O. Box 72295, Lynnwood Ridge, 0040
- CHEMC Environmental in association with Allan Batchelor & David Hoare, 2006. LonMin Biodiversity Study: Biodiversity Management Plan, for LonMin Platinum Operations.
- Hoare, D.B. 2006. Ecological study of the proposed Erand Gardens Extension 113 housing development, Midrand, Gauteng, for Wetland Consulting Services (Pty.) Ltd., P.O. Box 72295, Lynnwood Ridge, 0040
- Hoare, D.B. 2006. Ecological study of the proposed Erand Gardens Extension 24 housing development, Midrand, Gauteng, for Wetland Consulting Services (Pty.) Ltd., P.O. Box 72295, Lynnwood Ridge, 0040
- Hoare, D.B. 2006. Ecological study of the proposed Noordwyk Extension 70 housing development, Midrand, Gauteng, for Wetland Consulting Services (Pty.) Ltd., P.O. Box 72295, Lynnwood Ridge, 0040
- Hoare, D.B. 2006. Ecological study of the proposed Sagewood Extension 11 housing development, Midrand, Gauteng, for Wetland Consulting Services (Pty.) Ltd., P.O. Box 72295, Lynnwood Ridge, 0040
- Hoare, D.B. 2006. Report on consulting services provided: Training in use of tools for mapping invasive species abundance and distribution, for UNEP/GEF IAS Project, CAB International Africa Regional Centre, ICRAF Complex, PO Box 633-00621, Nairobi, Kenya
- Hoare, D.B. 2005. Red data flora assessment of Holding 109, Wonderboom Agricultural Holdings Extension 1, Pretoria, Gauteng, for C.M. Grobbelaar.
- Hoare, D.B. 2005. Baseline vegetation survey of the farm Vlakplaas near Centurion, Gauteng, for De Castro & Brits Environmental Consultants.
- Hoare, D.B. 2005. Ecological survey of the Stuart Coal Weltevreden East proposed haul road route, Delmas, Mpumalanga, for De Castro & Brits Environmental Consultants
- Hoare, D.B. 2005. Evaluation of potential species for use at the St Francis Links Golf Course at Cape St Francis, for St Francis Links (Pty) Ltd.
- Hoare, D.B. 2005. Ecological survey of alternative sites for proposed Sentech transmitting masks in the Harrismith area, Environmental Impact Management Services (Pty) Ltd.

- Hoare, D.B. 2005. Ecological specialist study as part of the Strategic Environmental Assessment for Rustenburg Priority 2 area, for Ntumbuluko Environmental Services.
- Hoare, D.B. 2005. Botanical Survey of the proposed final alignment for the 78km Rand Water Bulk Water Supply Pipeline from Brakfontein Reservoir (Centurion) to Barnardsvlei Reservoir (Rustenburg) in the Gauteng and North West Provinces, for De Castro & Brits Environmental Consultants
- Hoare, D.B. 2005. Proposed N2 Wild Coast toll highway: specialist screening study on potential impacts of alternative alignments on flora and vegetation, Pondoland, Eastern Cape, for CCA Environmental.
- Hoare, D.B. 2005. Red data flora assessment of Plot 102, Willowglen Agricultural Project, Equestria for Superway Construction.
- Hoare, D.B. 2005. Ecological investigation of the proposed bulk sewer at Mogoba village, Daveyton, Gauteng, for Environmental Impact Management Services (Pty) Ltd.
- CHEMC Environmental in association with Allan Batchelor & David Hoare, 2005. LonMin Biodiversity, for LonMin Platinum Operations.
- Hoare, D.B. 2005. Baseline vegetation survey of the farm Knoppieslaagte near Centurion, Gauteng, for De Castro & Brits Environmental Consultants
- Hoare, D.B. 2005. Vegetation and flora of the proposed Jubilee Golf Estate near Jeffrey's Bay, Eastern Cape, for Ecological Management Services.
- Hoare, D.B. 2005. Ecological study of the vegetation of the proposed Gqunube Valley Eco Golf Resort, Gonubie, East London, for ARCUS GIBB (Pty) Ltd.
- Hoare, D.B. 2005. Ecological investigation of the proposed Goedeburg x30 development, Benoni, Gauteng, for Shakti Environmental Services.
- Hoare, D.B. 2005. Ecological survey of the Navigation West proposed expansion, Clewer, Mpumalanga, for De Castro & Brits Environmental Consultants.
- Hoare, D.B. 2005. Vegetation survey and red data flora assessment of quarry site on portion 107 of the farm Houtkop 594 IQ, Vereeniging, for Umhlaba Environmental Consulting.
- Hoare, D.B. 2005. Vegetation and red data flora assessment of the site of the proposed Baviaanspoort reservoir on the farm Baviaanspoort 330-JR, Pretoria, for BKS (Pty) Ltd
- Hoare, D.B. 2005. Ecological investigation of the proposed township development at Alra Park and Cerutiville, Nigel, Gauteng, for Tswelopele Environmental Services (Pty) Ltd
- Hoare, D.B. 2005. Ecological investigation of the proposed Little Falls Golf Estate, Johannesburg for Environmental Impact Management Services (Pty) Ltd
- Hoare, D.B. 2005. Vegetation and wetland survey of the farm Lakenvalei 355 KT, Belfast for AfricaEPA
- Hoare, D.B. 2005. Ecological investigation of the proposed township development of a portion of the farm Sterkspruit 285 JT, Nelspruit for Dudula Environmental Consultants.
- Hoare, D.B. 2005. Ecological study of the vegetation of the farm Louwskraal 257 KR, near Naboomspruit for Sakaza Environmental Services (Pty) Ltd.
- 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.
- Hoare, D.B. 2005. Threatened species assessment of the Farm Blair Atholl for Ecological Management Services, Kimberley.
- Hoare, D.B. 2005. Assessment of the conservation and agricultural potential of a property in Jansenpark, Boksburg for Sakaza Environmental Services (Pty) Ltd.
- Hoare, D.B. 2005. Ecological study of the vegetation of the Heron Banks Golf and River Estate, Vaalpark for Heron Banks Development Company (Pty) Ltd
- Hoare, D.B. 2005. Terrestrial and wetland survey of the proposed conveyor route across the Olifants River for Jones & Wagener Consulting Civil Engineers
- Hoare, D.B. 2005. Assessment of vegetation sensitivity for the biophysical component of the WMA12 (Eastern Cape) Forestry SEA for Coastal Environmental Services (Pty) Ltd
- Hoare, D.B. 2005. Red Data Flora assessment of the quarry on the farm Olifantsfontein 410 JR for Umhlaba Environmental Consulting
- Hoare, D.B. 2005. Red Data Flora assessment of the quarry at Sterkfontein on the farm Sterkspruit 173-IQ, for Umhlaba Environmental Consulting
- Hoare, D.B. 2005. Wetland survey of the farm Braamhoek for the proposed ESKOM pumped storage scheme, Free State and KwaZulu-Natal, for Wetland Consulting Services.
- Hoare, D.B. 2005. Sensitivity study of Leeupan for Environmental Impact Management Services (Pty) Ltd

- Hoare, D.B. 2005. Ecological investigation of the proposed Lizzard Point Golf Estate, Oranjeville for Environmental Impact Management Services (Pty) Ltd
- Hoare, D.B. 2005. Ecological investigation of the proposed Ponds Golf Estate, Johannesburg for Environmental Impact Management Services (Pty) Ltd
- Hoare, D.B. 2005. Vegetation monitoring of Suikerbosrand Nature Reserve, South Africa, on the basis of resampled vegetation sites for Gauteng Department of Agriculture, Conservation, Environment and Land Affairs, Conservation Division.
- Hoare, D.B. 2004. Botanical baseline survey of the Goedgevonden Colliery expansion area mine property (Ogies, Mpumalanga) for De Castro & Brits Environmental Consultants
- Hoare, D.B. 2004. Ecological investigation of the proposed lodge site at Mount Savannah Game Reserve, on the farm Danielrust 518 JQ for De Castro & Brits Environmental Consultants
- Hoare, D.B. 2004. Ecological investigation of the proposed sewerage pipeline expansion at Elsburg for Sakaza Environmental Services (Pty) Ltd
- Hoare, D.B. 2004. Survey of ecological sensitivity of the proposed Klarinet Extension (Phase II) urban development project (Witbank) for Cleanstream Environmental Services
- Hoare, D.B. 2004. Survey of ecological sensitivity of the proposed Klarinet Extension (Phase III) urban development project (Witbank) for Cleanstream Environmental Services
- Hoare, D.B. 2004. Threatened species survey of the proposed Klarinet Extension (Phase II) urban development project (Witbank) for Cleanstream Environmental Services
- Hoare, D.B. 2004. Threatened species survey of the proposed Klarinet Extension (Phase III) urban development project (Witbank) for Cleanstream Environmental Services
- Hoare, D.B. 2004. Ecological investigation of the proposed township development at Modderfontein 76 IR (Gauteng) for Environmental Impact Management Services (Pty) Ltd
- Hoare, D.B. 2004. Ecological investigation of the proposed township development at Duduza Extension 4 for Environmental Impact Management Services (Pty) Ltd
- Hoare, D.B. 2004. Ecological investigation of the proposed township development at Mogoba for Environmental Impact Management Services (Pty) Ltd
- Hoare, D.B. 2004. Ecological investigation of the proposed township development at Vlakfontein Extensions 35 & 36 for Environmental Impact Management Services (Pty) Ltd
- Hoare, D.B. 2004. Ecological investigation of the proposed township development at Etwatwa for Environmental Impact Management Services (Pty) Ltd
- Hoare, D.B. 2004. Ecological investigation of the proposed township development at Moleleki Extension 3 for Environmental Impact Management Services (Pty) Ltd
- Hoare, D.B. 2004. Assessment of the conservation value of two pans at Boschmanskrans Section of Douglas Colliery, Mpumalanga for PHD.
- Hoare, D.B. 2004. Wetland plant communities of the Steenkoolspruit section of Douglas Colliery, Mpumalanga for PHD.
- Hoare, D.B. 2004. Ecological assessment of grasslands in the area of the proposed Hole-in-the-Wall Ridge, Hlungulwana and Maphuzi developments for Peter Fielding, East London.
- Hoare, D.B. 2004. Baseline vegetation survey of the farm Avontuur near Badplaas (Mpumalanga) for De Castro & Brits Environmental Consultants
- Hoare, D.B. 2004. Biodiversity baseline assessment of the Bafokeng Rasimone Platinum mine lease area for De Castro & Brits Environmental Consultants
- Hoare, D.B. 2003. Vegetation of the proposed power line route from Manda to Kasanga, southern Highlands, Tanzania for Environmental Impact Management Services (Pty) Ltd.
- Hoare D.B. 2003. Desktop study of threatened flora and fauna of the Tiger Moon Sanctuary for De Castro & Brits Environmental Consultants
- Hoare D.B. 2003. Plant communities and threatenend plant taxa of the proposed gas pipeline on Macama farm and Fountain farm south of Suikerbosrand Nature Reserve for Mark Wood Consulting.
- Hoare, D.B. 2003. Ecological survey of the Salplats Mine for Metago Environmental Engineers (Pty) Ltd.
- Hoare, D.B. 2003. Ecological survey of the proposed extension to the mine infrastructure of the Bafokeng Rasimone Platinum Joint Venture for Metago Environmental Engineers (Pty) Ltd.
- Hoare, D.B. 2003. Short-term changes in vegetation of Suikerbosrand Nature Reserve, South Africa, on the basis of resampled vegetation sites for Gauteng Department of Agriculture, Conservation, Environment and Land Affairs, Conservation Division.
- Hoare, D.B. 2003. Ecological investigation of the proposed township development at Reiger Park Extensions 8,9,10 and 11 for Environmental Impact Management Services (Pty) Ltd.
- Hoare, D.B. 2003. Ecological investigation of the proposed Goldfields West golf estate for Environmental Impact Management Services (Pty) Ltd.

- Hoare, D.B. 2003. Ecological investigation of the proposed township development at Esselen Park extension for Environmental Impact Management Services (Pty) Ltd.
- Hoare, D.B. 2003. Vegetation and threatened species survey of the proposed ESCOM conveyor and rail routes from Baanbreker siding to New Denmark for Golder Associates.
- Hoare, D.B. 2003. Infrastructure of proposed ESCOM conveyor and rail routes from Baanbreker siding to New Denmark for Golder Associates.
- Hoare, D.B. 2002. Threatened species survey of the proposed Mount Savannah Game Reserve, on the farm Danielrust 518 JQ for De Castro & Brits Environmental Consultants
- Hoare, D.B. 2002. Biophysical survey of the proposed route of the N1 toll road between Louis Trichardt and Messina for Environmental Information Management Services (Pty) Ltd..
- Hoare, D.B. 2002. Invasive species survey: Bakwena platinum highway for Environmental Information Management Services (Pty) Ltd..
- Hoare, D.B. 2002. Vegetation and agricultural potential survey of the proposed Tsakane Ridge Holding Development Scheme for I.W. Terrblanche & Associates
- Hoare, D.B. 2002. Ecological survey of the proposed overnight lodge in the Addo National Park extension for De Castro & Brits Environmental Consultants.
- Hoare, D.B., 2002. Flora of the Abiqua Slate Colliery for De Castro & Brits Environmental Consultants
- Hoare, D.B., 2001. Propagation and establishment of indigenous plant species in areas unsuitable for sugarcane farming in the Project Development Area of the Komati Downstream Development Project for De Castro & Brits Environmental Consultants.
- Hoare, D.B., 2001. Occurrence of Red Data List plant species along the proposed Sasol Gas Pipeline from Secunda to Komatipoort for Mark Wood Consulting; (consultant).
- Coastal Environmental Services (CES), 2000. Vegetation survey: Corridor sands project, Environmental impact assessment for Chibuto to Chokwe rail link: (consultant).
- Coastal Environmental Services (CES), 2000. Vegetation and wildlife survey of the proposed new tailings dam of Twisdraai Colliery: (consultant)
- Coastal Environmental Services (CES), 2000. Vegetation of the corridor for the proposed Eskom 400 kV powerline between Poseidon and Albany substations: (consultant).
- Coastal Environmental Services (CES), 2000. Biological survey: Douglas Colliery Vandyksdrift proposed new discard dump: (consultant).
- Coastal Environmental Services (CES), 2000. Suitability of KCI private game reserve for elephants: (consultant).
- Hoare, D.B. & Victor, J.E., 2000. Ecological survey of the proposed Heidelberg Ext. 23. (For LawGibb Group).
- Coastal Environmental Services (CES), 1999. Botanical and wetland survey for Optimum Colliery: (consultant).
- Coastal Environmental Services (CES), 1999. Botanical and wetland survey for Douglas Colliery: (consultant).
- Hoare, D.B., 1998. Biological survey of south-east section of Kriel Colliery. (for Amcoal)
- Hoare, D.B., 1998. Biological survey of proposed South-west 1 shaft and overland conveyor route of Bank Colliery. (for Amcoal)
- Britton, D., Silberbauer, L., Robertson, H., Lubke, R., Hoare, D., Victor, J., Edge, D. and 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.
- Coastal Environmental Services, 1997. The habitat of the Brenton Blue butterfly (for Environmental Wildlife Trust)
- Hoare, D.B. & Victor, J.E., 1997. Vegetation survey of Gqutuini (for North East Cape Forests)
- Hoare, D.B. & Victor, J.E., 1997. Vegetation survey of Mtintloni (for North East Cape Forests)
- Coastal Environmental Services, 1997. Ecological survey of Boschmanskrans section of Douglas Colliery: (subcontracted by CES to do field study).
- Coastal Environmental Services (CES), 1997. Vegetation and wildlife survey of the South-East Section, Douglas Colliery: (consultant).
- Coastal Environmental Services (CES), 1996. Vegetation and wetland survey of South-East Section, Optimum Colliery: (consultant).
- Coastal Environmental Services (CES), 1995. Botanical and wetland survey of Steenkoolspruit Section, Douglas Colliery: (consultant).



**Teaching and mentorship experience:**

Co-supervisor of 1 BSc (Hons) student at UCT, Cape Town, and 1 MSc student at NMMU, Port Elizabeth. Gauteng Nature Conservation, mentorship programme: Monitoring of Suikerbosrand Nature Reserve Gauteng Nature Conservation, mentorship programme: Fine-Scale vegetation mapping of Gauteng Province

Lecture series (3 weeks) to Biology I, Rhodes University, 2002 ("Plant diversity")

Lecture series to "Beyond Adventure" students, 2002 ("Ecology of coastal plants and vegetation")

Promotional lecture: Botany I, Rhodes University, 2000 ("Botany in the real world")

Lecture to Landscape Architecture III class, University of Pretoria, 2000 ("Coastal Vegetation").

Lecture to Landscape Architecture III class, University of Pretoria, 1997 ("Coastal Vegetation").

Lecture to Wildlife Management (Honours) class, University of Pretoria, 1997 ("Grassland Biome of South Africa").

Demonstrated 1st & 2nd year undergraduates in Botany and Biology at Rhodes University for three years (1992-1994). Included class practical work demonstration and marking of assignments, tutorial supervision and field trip practical supervision and demonstration.

Fox, S. (2003). An analysis of vegetation pattern and its relationship to NDVI data in the Namaqualand area, South Africa. Unpublished BSc(Hons) thesis, University of Cape Town, Cape Town. [Supervisors: Timm Hoffman & David Hoare].

**Computer literacy:**

Windows, MS Word, MS Excel, MS Powerpoint, Corel Draw, IDRISI for Windows 2, ArcView 3.x (including Spatial Analyst and Grid Analyst modules), ERDAS Imagine Professional, TurboVeg, and the Internet.

**Workshops / symposia attended:**

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.

28<sup>th</sup> 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.

34<sup>th</sup> 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 Afrikaanse Universiteit postgraduate symposium, 1997.

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

**Referees:**

Michele Pfab, Assistant Director, Gauteng Nature Conservation, P.O. Box 8769, Johannesburg, 2000, Tel. (011) 355 1480 E-mail: [michelep@gpg.gov.za](mailto:michelep@gpg.gov.za)

Prof. Roy Lubke, Botany Department, Rhodes University, Grahamstown 6140 Tel: 0461-318 592. E-mail: [r.lubke@ru.ac.za](mailto:r.lubke@ru.ac.za)

Prof. Laco Mucina, Botany Dept., Dept. of Botany, Univ. of Stellenbosch, Private Bag X1, 7602 Matieland Tel. (021)-808-2716 / 082 564 9297 E-mail: [LM3@sun.ac.za](mailto:LM3@sun.ac.za)

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



# University of Pretoria

The Council and Senate hereby declare that  
at a congregation of the University the degree

**Magister Scientiae**  
(with distinction)  
with specialization in  
Botany

with all the associated rights and privileges  
was conferred on

**DAVID BARRY HOARE**

in terms of the Act and Statutes of the University

On behalf of the Council and Senate

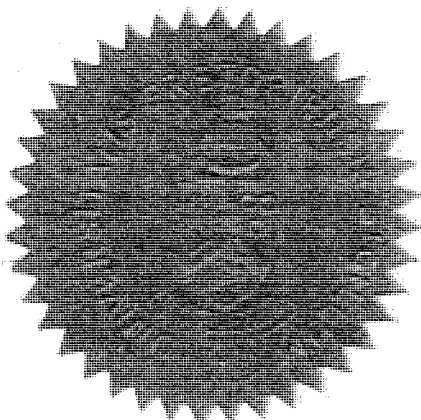
A handwritten signature in dark ink, appearing to be 'J. J. J. J.', written over a horizontal line.

Vice-Chancellor and Principal

On behalf of the Faculty of  
Biological and Agricultural Sciences

A handwritten signature in dark ink, appearing to be 'H. Hoare', written over a horizontal line.

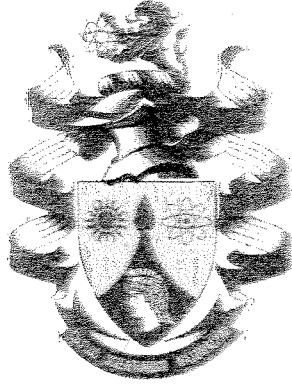
Dean



A handwritten signature in dark ink, appearing to be 'J. J. J. J.', written over a horizontal line.

Registrar

1998-04-17



THE SOUTH AFRICAN COUNCIL  
FOR  
NATURAL SCIENTIFIC PROFESSIONS

herewith certifies that

**David Barry Hoare**

Registration number: 400221/05

is registered as a

**Professional Natural Scientist**

in terms of section 20(3)(a) of the Natural Scientific Professions Act, 2003  
(Act 27 of 2003) in the following field(s) of practice (Schedule I of the Act)

**Botanical Science**


(Registration date: 4 July 2007)


**Environmental Science**

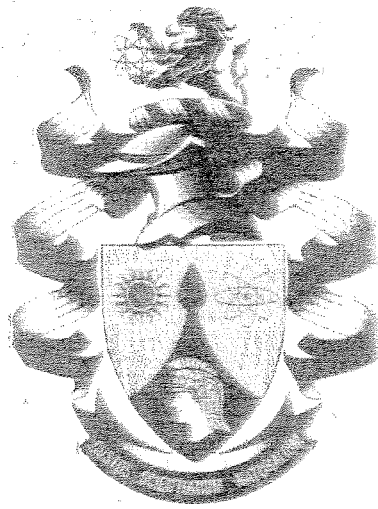
(Registration date: 16 August 2005)

4 July 2007

Republiek van Suid-Afrika  
Pretoria

  
President

  
Chief Executive Officer



THE SOUTH AFRICAN COUNCIL  
FOR  
NATURAL SCIENTIFIC PROFESSIONS

herewith certifies that

**David Barry Hoare**

Registration number #00221/05.

has been registered as a

**Professional Natural Scientist**

in terms of section 20(3) of the Natural Scientific Professions Act, 2003.

(Act 27 of 2003)

in the following field(s) of practice

(Schedule I of the Act)

**Ecological Science**

16 August 2005

Pretoria

Handwritten signature of the President.

President

Handwritten signature of the Chief Executive Officer.

Chief Executive Officer



## **JONATHAN JAMES SMALLIE**

### **Curriculum Vitae**

**Date of birth:** 20 October 1975

**Qualifications:** BSC – Agriculture (Hons)  
University of Natal - Pietermaritzburg

**Occupation:** Field Biologist – Endangered Wildlife Trust –  
Industries Partnership (a working group of  
Endangered Wildlife Trust)

**Duties:** Conduct investigations, impact assessments, studies,  
research on wildlife interactions with power line  
infrastructure and wildlife hazards at airports.

The following projects have been completed since 2000.

#### **1) Wildlife interactions with power lines**

*Bird Impact Assessment Studies for Power line EIA's:*

- Mercury – Perseus 400kV
- Eros – Neptune – Grassridge 400kV
- Kanoneiland 22kV
- Hydra-Gamma 765kV
- Komani-Manzana 132kV
- Rockdale-Middelburg 132kV
- Irenedale 132 kV
- Zandfontein 132kV
- Venulu-Makonde 132 kV
- Spencer-Makonde 132 kV
- Dalkeith-Jackal Creek 132kV
- Glen Austin 88kV
- Bulgerivier 132kV
- Ottawa-Tongaat 132kV
- Kudu-Juno 400kV
- Garona Aries 400kV
- Perseus Hydra 765Kv
- Disselfontein 132kV
- Voorspoed Mine 132kV
- Wonderfontein 132kV

- Kabokweni Hlau Hlau 132kV
- Hazyview Kiepersol 132kVVMayfern Delta 132kv
- VAAL Vresap 88kV
- Eskom Concentrated Solar Power Plant

*Risk Assessments on existing power lines:*

- Hydra-Droerivier 1,2 & 3 – 400kV
- Hydra-Poseidon 1,2 – 400kV
- Butterworth – Ncora 66kV
- Nieu-Bethesda 22kV
- Maclear 22kV (Joelshoek Valley Project)
- Wodehouse 22kV (Dordrecht district)
- Burgersdorp - Aliwal North - Jamestown 22kV
- Cradock 22kV
- Colesberg area 22kV
- Loxton self build 11kV
- Kanoneiland 22kV
- Stutterheim Municipality 22kV
- Majuba-Venus 400kV
- Chivelston-Mersey 400kV
- Marathon-Prairie 275kV
- Delphi-Neptune 400Kv
- Ingagane – Bloukrans 275kv
- Ingagane – Danskraal 275kv
- Danskraal – Bloukrans 275kv

*Bird mortality investigations & other studies:*

- Bird Impact Assessment for Lizzard Point Golf Estate - Vaaldam
- Bird Impact Assessment for Lever Creek Estates housing development
- Investigation into rotating Bird Flapper saga – Aberdeen 22kV
- Investigation of in excess of 80 separate incidents of bird mortalities on power line networks from August 1999 to present
- Investigation of bird mortalities at 3 separate substations
- Special investigation into faulting on Ariadne-Eros 132kV
- Special investigation into Bald Ibis faulting on Tutuka Pegasus 275kV
- Special investigation into bird related faulting on 22kV Geluk Hendrina line

- Special investigation into bird related faulting on Camden Chivelston 400kV line

*Conferences attended:*

- September 2000: 5<sup>th</sup> World Conference on Birds of Prey in Seville, Spain.
- 2003: Presented a talk on "Birds & Power lines" at the 2003 AGM of the Amalgamated Municipal Electrical Unions – in Stutterheim - Eastern Cape
- June 2005: IASTED Conference at Benalmadena, Spain – presented a paper entitled "Impact of bird streamers on quality of supply on transmission lines: a case study"

*Courses & training:*

- Successfully completed a 5 day course in High Voltage Regulations (modules 1 to 10) conducted by Eskom – Southern Region
- Successfully completed training on, and obtained authorization for, live line installation of Bird Flappers

*Papers:*

- Smallie, J. & Van Rooyen, C. 2003. Risk assessment of bird interaction on the Hydra-Droërvier 1 and 2 400kV. Unpublished report to Eskom Transmission Group. Endangered Wildlife Trust. Johannesburg. South Africa
- Van Rooyen, C. Jenkins, A. De Goede, J. & Smallie J. 2003. Environmentally acceptable ways to minimise the incidence of power outages associated with large raptor nests on Eskom pylons in the Karoo: Lessons learnt to date. Project number 9RE-00005 / R1127 Technology Services International. Johannesburg. South Africa
- Smallie, J. & Van Rooyen, C. 2005. Impact of bird streamers on quality of supply on transmission lines: a case study. Proceedings of the Fifth IASTED International Conference on Power and Energy Systems, Benalmadena, Spain.



## **2) Wildlife hazards at airports**

### *Risk assessments:*

Assessments of the bird strike hazard posed to aircraft have been conducted at the following airports:

- Port Elizabeth Airport – specialist study as part of the EIA for the proposed Madiba Bay Leisure Park
- Manzini International Airport (Swaziland)
- Polokwane International Airport
- Mafekeng International Airport
- Lanseria Airport

### *Courses and training:*

- One day course in Airside Induction & Safety successfully attended

### *Conferences attended:*

- May 2005: International Bird Strike Committee 27<sup>th</sup> meeting – Athens, Greece. Presented a paper entitled Bird Strike Data analysis at SA airports 1999 to 2004.

### *Papers:*

- Smallie, J. & Froneman, A. 2005. Bird Strike data analysis at South African Airports 1999 to 2004. Proceedings of the 27<sup>th</sup> Conference of the International Bird Strike Committee, Athens Greece.



## PERSONNEL CURRICULUM VITAE

<b>NAME</b>	ALAIN-MICHEL (NINO) WELLAND
<b>DATE OF BIRTH</b>	10 FEBRUARY 1960
<b>MARITAL STATUS</b>	Married to Gorete, with two daughters, Aimee Solange (4 yo) and Isabella Jacqueline (2 yo)
<b>NATIONALITY</b>	BRITISH/CANADIAN Permanent resident permit No ott/105/83 for RSA
<b>INTERESTS &amp; HOBBIES</b>	Mountain Bike Racing, Classical Guitar Playing and Composition, Fixed-Wing Gliding.
<b>QUALIFICATIONS</b>	<ul style="list-style-type: none"> <li>• BSc (Hons) /BEng (Eng Geol &amp; Geotechnics) Portsmouth University (1982)</li> <li>• GDE (Civil Engineering) Wits University (1993)</li> </ul>
<b>PROFESSIONAL MEMBERSHIP</b>	<ul style="list-style-type: none"> <li>• Member: South African Institute of Engineering Geologists (86/101)</li> <li>• Member: South African Council for Natural Scientists (72/88)</li> <li>• Member: South African Institute of Civil Engineers &amp; ECSA (940268)</li> </ul>
<b>NAME &amp; ADDRESS OF CURRENT EMPLOYER</b>	MOORE SPENCE JONES (PTY) LTD CONSULTING GEOTECHNICAL & ENVIRONMENTAL ENGINEERS, ENGINEERING GEOLOGISTS, AND GEOLOGISTS PO Box 1263 Wandsbeck South Africa 3631 <a href="mailto:msjihb@iafrica.com">msjihb@iafrica.com</a>
<b>DATE OF JOINING FIRM</b>	2002
<b>CURRENT POSITION WITH FIRM</b>	<ul style="list-style-type: none"> <li>• Principal Engineer and Technical &amp; Regional Manager, Gauteng Province</li> </ul>

## SUMMARY OF EMPLOYMENT

<i>2002 to present</i>	<i>Technical &amp; Regional Manager, Gauteng Region, Moore Spence Jones (Pty) Ltd</i>
<i>1999 to 2002</i>	<i>Senior Officer: Council for Geoscience: Dam &amp; Underground Unit, Pretoria</i>
<i>1999</i>	<i>Section Engineer: Keeve Steyn: Maguga Dam, Swaziland</i>
<i>1998 to 1999</i>	<i>Geotechnical Consultant, Johannesburg</i>
<i>1990 to 1998</i>	<i>Associate Director: BKS (Pty) Ltd, Johannesburg</i>
<i>1988 to 1990</i>	<i>Senior Geotechnical Engineer: VKE Engineers, Pretoria</i>
<i>1984 to 1988</i>	<i>Head Urban Engineering Unit: Geological Survey of SA, Pretoria</i>
<i>1982 to 1984</i>	<i>Junior Geotechnical Engineer: Monenco Consultants, Calgary, Canada</i>

## KEY EXPERIENCE

1982 to present: Monenco Consultants (Canada), Geological Survey of SA, VKE Engineers (Pretoria), BKS (Pty) Ltd (Johannesburg and Lesotho), Council for Geoscience (Pretoria), Keeve Steyn (Swaziland) & Moore Spence Jones (Pty) Ltd (Durban and Johannesburg).

### ➤ Management Experience

- Associate Director for BKS (Pty) Ltd in 1998
- Fundamental duties include office administration and management, marketing, forming new client liaisons, strategic marketing, project management of individual projects
- Management and mentoring of junior staff at BKS, Keeve Steyn (MDJV) on site and Council for Geoscience from 1991 to present.
- Establishment and management of regional office in Gauteng for Moore Spence Jones (Pty) Ltd from 2002 involving the supervision and mentoring of numerous teams of engineering geologists, geotechnical engineers, drillers, field technicians and environmental experts.
- Management of detailed design ground investigation for Gautrain Rapid Rail Link (Southern Section). Supervision of team of engineering geologists, civil technicians and drillers for the drilling and testing of 13km tunnel section and viaducts.

### ➤ Dam Construction & Design and Water Engineering

The involvement in water engineering, specifically dam feasibility and design level investigations, including exploratory drilling for foundations, grouting, diversion tunnels and quarries. Numerous dam safety studies have been completed for DWAF and specific detailed investigations for the raising of dams and spillway augmentations. **Approved Dam Safety Inspection Officer on Category III Dams for all DWAF appointments.**

- **Investigation of New Dams:** Field Engineer for 60m high Dunvegan Dam, Canada (1983); Sipophaneni Dams in Swaziland (1988); 15m Dam at Roodepoort Athletics Stadium (1992); Dam & Waterfront Complex at Randburg Waterfront (1992); Investigations for slimes dams and reduction plant in Likasi, DRC (1996); Geotechnical investigation of Mohale Dam in Lesotho (1996-1997); Section Engineer for Maguga Dam in Swaziland (1999); Geotechnical Engineer for Injaka Dam (1999-2002); Geotechnical Engineer for Rooipoort Dam (2000). Geotechnical engineer in charge of investigations for 60m high Metolong Dam in Lesotho (Lesotho Lowlands Water Project) in 2003; Geotechnical investigation for slimes dams at Rhovan Mine for Jones and Wagener.
- **Dam Safety Investigations:** Numerous investigations for DWAF for earthfill embankments, gravity, double arch and composite dams all over RSA.
- **Dam Raising Feasibility & Design:** Midmar Dam design for stability and anchor design; Thapane Dam raising and spillway augmentation.

### ➤ Geotechnical Engineering and Engineering Geology Experience

The involvement on large capital expenditure, infrastructure related projects, has been as a specialist engineering geologist, with special reference to roads, railway lines, tunnels, dams, water purification plants & related infrastructure and construction materials. Experience was gained on numerous projects in small to very large civil engineering and mining projects in various countries including South Africa, DRC, Mozambique, Lesotho, Botswana, Mauritius and Swaziland. Brief resume of the type of work conducted:

- Rehabilitation/Upgrading of National Roads and Freeways in South Africa, Swaziland, Lesotho and Tanzania including bridge foundation investigations and approach fill stability up to 20m high. Kaaimans Pass cutting rehabilitation and safety investigation (2003) for SANRAL
- Rehabilitation of flood damaged dams and weirs in the Limpopo Province for DWAF

## ALAIN-MICHEL (NINO) WELLAND

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- Dolomite Stability Studies: Numerous investigations for townships and structures over sinkhole prone terrain for Council for Geoscience and numerous commercial structures and schools for MSJ.
- Tunnel Projects in South Africa, Swaziland and Algeria: L'Ourika Tunnel Bid in Algeria (2000-2002): Water diversion and supply tunnels for Maguga Dam, Swaziland (1999): Numerous drainage tunnels for DWAF dams throughout RSA (2000-2002). Detailed design ground investigation for 13km tunnel of southern section of Gautrain Rapid Rail Link.
- Reservoirs, Pipelines and Water Purification Works in Lesotho, RSA, Mozambique.
- New and Flood Damaged Dams ; Listed above.
- Groundwater Investigation and design of Groundwater Abstraction Boreholes related to solid waste and cemetery sites. Design of clay lining systems and establishment of formal guidelines for the investigation of cemetery sites according to the DWAF Minimum Requirements.
- Foundation investigations and design of foundations and lateral support for High Rise Structures in various cities in RSA, Mozambique and Lesotho.
- Specific detailed ground investigations for double and triple-basement structures for large commercial developments in Bloemfontein (Loch Logan Shopping Centre, New Regional Offices for Department of Works, Heidedal Police Station)
- Evaluation and remediation of undermined and contaminated land: Witbank Coal fields; East Rand Coalfields: Rissik Street in Germiston: Wadeville remediation for Shell: Syntheta Plant in Midrand for DOW Chemicals.
- Numerous NHBRC Phase 1 and 2 investigations for housing projects throughout RSA including Cosmo City (2002-2007).
- Investigation, analysis and remedial measures for numerous cracked structures including CTM building in Tzaneen and ABSA bank in Randburg.
- Investigations for linear structures (powerlines and pipelines) for environmental scoping reports for SEF and Eskom.

➤ Language Proficiency:

LANGUAGE	SPEAK	READ	WRITE
French	Fair	Fair	Fair
Sesotho	Hanyane	-	-
Afrikaans	Fair	Fair	Fair
English	Excellent	Excellent	Excellent

I declare that the above information is correct

.....  
A-M WELLAND Pr Sci Nat., Pr Eng



## ***CURRICULUM VITAE: D G Paterson***

**SURNAME:** PATERSON  
**FIRST NAME(S):** David Garry  
**KNOWN AS:** Garry  
**DATE OF BIRTH:** 25-08-1959 in Bellshill, Scotland  
**NATIONALITY:** South African  
**I.D. No.:** 5908255258088  
**LANGUAGE PROFICIENCY:** English, Afrikaans (both fluent), French (poor)  
**MARITAL STATUS:** Married, one son

**ADDRESS:** Institute for Soil, Climate and Water  
Private Bag X79  
Pretoria 0001  
Republic of South Africa  
**TEL.:** (012) 310 2601  
083 556 2458  
**FAX:** (012) 323 1157

**E-MAIL ADDRESS:** garry@arc.agric.za

### **ACADEMIC QUALIFICATIONS:**

- Matriculated: 1976, Dalziel High School, Motherwell, Scotland
- BSc (Hons) Geography, 1980, University of Strathclyde, Glasgow, Scotland
- MSc (Soil Science) *cum laude*, 1998, University of Pretoria

### **PROFESSIONAL CAREER:**

- 1981-1987: Soil Scientist: Soil and Irrigation Research Institute, Pretoria
- 1987-1992: Senior Soil Scientist: Soil and Irrigation Research Institute, Pretoria
- 1992-present: Senior Soil Scientist: ARC-Institute for Soil, Climate & Water

### **FIELDS OF SPECIALITY AND COMPETENCE:**

- Soil classification and mapping
- Soil interpretations
- Soil survey project management
- Environmental assessment
- Soil survey and land capability course presentation
- Ground penetrating radar

**PUBLICATIONS (see attached list):**

- Three refereed articles (S.A. Journal of Plant and Soil)
- Nine Congress papers/posters
- S.A. Soil Classification (1991) (Member of working group)
- Seven 1:250 000 Land Type Maps
- Three Land Type Memoirs
- More than 200 soil survey reports and/or maps

**COURSES COMPLETED:**

- Course in Project Management (University of Stellenbosch)
- Course in Junior Personnel Management (Dept of Agriculture)
- Course in Handling of Grievances and Complaints (Dept of Agriculture)
- Course in Marketing (ARC-ISCW)
- Course in National Qualifications Framework Assessment, ARC-CO
- Training Course in Ground Penetrating Radar (GSSI, USA)
- Introduction to ArcGIS 8, GIMS, 2004

**PROFESSIONAL STATUS:**

- Registered Natural Scientist (SA National Council for Natural Scientific Professions)
- Member of South African Soil Classification Working Group
- Member of Soil Science Society of South Africa (1982-present)
- President of Soil Science Society of South Africa (2005-2007)
- Council Member of South African Soil Survey Association (2002-2003)
- Scientific Referee, S.A. Journal for Plant and Soil
- External Examiner, University of Pretoria and University of Witwatersrand

**MISCELLANEOUS:**

Editor, Soil Science Society newsletter, 1993-present  
Member, Clapham High School (Pretoria) Governing Body 1998-2002  
Member, Northern Gauteng Football Referee's Association  
Member, Rosslyn Golf Club (Club Champion 2002)

**INTERESTS:**

Sport, especially golf and soccer; wildlife; reading; music



## **PUBLICATIONS LIST:**

### ***Refereed Articles:***

**BÜHMANN, C., KIRSTEN, W.F.A., PATERSON, D.G. & SOBCZYK, M.E.**, 1993. Pedogenic differences between two adjacent basalt-derived profiles. 1. Textural and chemical characteristics. *S. Afr. J. Plant & Soil*, 10: 155-161

**BÜHMANN, C., KIRSTEN, W.F.A., PATERSON, D.G. & SOBCZYK, M.E.**, 1994. Pedogenic differences between two adjacent basalt-derived profiles. 2. Mineralogical characteristics. *S. Afr. J. Plant & Soil*, 11: 5-11

**PATERSON, D.G. & LAKER, M.C.**, 1999. Using ground penetrating radar to investigate spoil layers in rehabilitated mine soils. *S. Afr. J. Plant & Soil*, 16:131-134.

### ***Book:***

**SOIL CLASSIFICATION WORKING GROUP\***, 1991. Soil classification. A taxonomic system for South Africa. Institute for Soil, Climate & Water, Pretoria.

\* Co-author as member of Working Group

### ***Thesis:***

**PATERSON, D.G.**, 1998. The use of ground penetrating radar to investigate subsurface features in selected South African soils. Unpublished M Sc Thesis, University of Pretoria.

### ***Congress Papers:***

**PATERSON, D.G.**, 1987. The relationship between geology and soil type in the northern Kruger National Park. 14<sup>th</sup> Congress of the Soil Science Society of S.A. Nelspruit, 14-17 July 1987.

**PATERSON, D.G.**, 1990. A study of black and red clay soils on basalt in the northern Kruger National Park. 16<sup>th</sup> Congress of the Soil Science Society of S.A. Pretoria, 9-12 July 1990.

**PATERSON, D.G.**, 1992. The potential of ground penetrating radar as an aid to soil investigation. 17<sup>th</sup> Congress of the Soil Science Society of S.A. Stellenbosch, 28-30 Jan.1992.

**PATERSON, D.G.**, 1995. The complex soil mantle of South Africa. ARC Wise Land Use Symposium, Pretoria, 26-27 Oct. 1995

**PATERSON, D.G. & LAKER, M.C.**, 1998. Locating subsoil features with ground penetrating radar. 21<sup>st</sup> Congress of the Soil Science Society of S.A. Alpine Heath, 20-22 Jan. 1998.

**PATERSON, D.G.**, 2000. Mapping rehabilitated coal mine soils in South Africa using ground penetrating radar. Eighth International Conference on Ground Penetrating Radar, Gold Coast, Australia, 23-26 May 2000.

**PATERSON, D.G. & VAN DER WALT, M.**, 2003. The soils of South Africa from the Land Type Survey. 24<sup>th</sup> Congress of the Soil Science Society of S.A., Stellenbosch, 20-24 Jan. 2003

### ***Land Type Maps:***

**PATERSON, D.G.**, 1990. 1:250 000 scale land type map 2230 Messina. Dept. Agriculture, Pretoria.

**PATERSON, D.G. & HAARHOFF, D.**, 1989. 1:250 000 scale land type map 2326 Ellisras. Dept. Agriculture, Pretoria.

**PATERSON, D.G., PLATH, B.L. & SMITH, H.W.**, 1987. 1:250 000 scale land type map 2428 Nylstroom. Dept. Agriculture, Pretoria.

**PATERSON, D.G. & ROSS, P.G.**, 1989. 1:250 000 scale land type map 2330 Tzaneen. Dept. Agriculture, Pretoria.

**PLATH, B.L. & PATERSON, D.G.**, 1987. 1:250 000 scale land type map 2426 Thabazimbi. Dept. Agriculture, Pretoria.

### ***Land Type Memoirs:***

**PATERSON, D.G., PLATH, B.L. & SMITH, H.W.**, 1988. Field Investigation. In: *Land types of the maps 2426 Thabazimbi & 2428 Nylstroom. Mem. Agric. Nat. Res. S. Afr.* No. 10. Dept. Agriculture, Pretoria.

**PATERSON, D.G., SCHOEMAN, J.L., TURNER, D.P., GEERS, B.C. & ROSS, P.G.**, 1989. Field Investigation. In: *Land types of the maps 2330 Tzaneen & 2430 Pilgrim's Rest. Mem. Agric. Nat. Res. S. Afr.* No. 12. Dept. Agriculture, Pretoria.

**PATERSON, D.G.**, 1999. 1:250 000 land type survey of the former Ciskei (Unpublished). ISCW Report GW/A/99/24.

### ***Also:***

**PATERSON, D.G.**, 1992. Ground penetrating radar applications in USA and South Africa. Report on an official study tour to USA, 13-29 July, 1991. ISCW Report GW/A/92/8

**PATERSON, D.G.**, 2000. Report on official overseas visit to GPR2000 Conference, Broadbeach, Australia, 23-26 May, 2000. ISCW Report GW/A/2000/40

Plus ARC-ISCW Reports on:

- Ground penetrating radar investigations in: Kruger National Park; Enseleni, Natal; Weatherly, Maclear; Kleinkopje Mine
- Soil survey investigations at: Roodeplaat, Kathu, Steelpoort River, Palala River, Zeekoegat (Roodeplaat), Limpopo River, Lydenburg, Kendal, Clewer Sand (Witbank), Botha Sand (Witbank), Balmoral Colliery, Bafokeng (Rustenburg), Towoomba (Warmbaths), Hoeveld Stene (Middelburg), Quality Bricks (Witbank), Visagie Sand (Middelburg), Rosslyn, Coalbrook (Sasolburg), Stewart Coal (Delmas), Forzando Coal (Hendrina), Vaalgro (Vereeniging), Ratanda (Heidelberg), Elspark (Boksburg), Thomcliffe Mine (Steelpoort), Jan Smuts Quarry (Boksburg), Ennerdale (Phase I & II), Thokoza, North Riding, Natalspruit (Alberton), Arnot, Kroondal (Phase I & II), Ga-Rankuwa,

Hartebeespoort Dam, Kosmos, Assen, Grasmere, Magalies Moot (Pretoria), Valpre (Paulpietersburg), Cargo Carriers (Sasolburg), Waterval (Rustenburg), Rayton, Bronkhorstspuit, Zwavelpoort (Pretoria), Pietersburg, Trojan Mine (Steelpoort), Platinum Highway (Rustenburg), Moutse, Centurion, Salique (Klaserie), Northam, Greenside Colliery (Witbank), South Deep Mine (Westonaria), Bank Colliery, Steelpoort Platinum, Gautrain Route (Pta/Jbg), Rietspruit Mine (Ogies), Potgietersrus Platinum, Atok Mine (Lebowa), Blue Ridge Mine (Groblersdal), Ngodwana, Estancia (Breyton), Twickenham Mine (Steelpoort), Marikana



**CURRICULUM VITAE**  
**Johan Abraham van Schalkwyk**

**PERSONAL PARTICULARS**

Date of birth: 14 April 1952  
Identity number: 520414 5099 08 4  
Marital status: Married; one daughter  
Nationality: South African

**CURRENT POSITION**

Head of Research: National Cultural History Museum.

**CURRENT ADDRESS**

Work:  
P O Box 28088, Sunnyside, 0132  
Tel: (012) 324 6082; Fax: (012) 328 5173; E-mail: [johnny@nfi.museum](mailto:johnny@nfi.museum)

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62 Coetzer Ave, Monument Park, Pretoria, 0181  
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**ACADEMIC QUALIFICATIONS**

BA. – 1976 (UP)  
BA. (Hons.) Archaeology - 1978 - (with distinction) (UP)  
Post Graduate Diploma in Museum Science – 1979 (UP)  
BA. (Hons.) Anthropology - 1981 - (with distinction) (UP)  
MA. Anthropology – 1985 (UP)  
D Litt et Phil (Anthropology) – 1996 (UNISA)

**NON ACADEMIC QUALIFICATIONS**

12th HSRC-School in Research Methodology - July 1990  
Dept. of Education and Training Management Course - June 1992  
Social Assessment Professional Development Course - 1994  
Integrated Environmental Management Course, UCT - 1994

**EMPLOYMENT RECORD**

1978 - present: National Cultural History Museum, Pretoria  
1976 - 1977: Archaeology Department, University of Pretoria

**PROFESSIONAL EXPERIENCE**

1992 - present: Chief researcher: Head of Department of Research. Manage an average of seven researchers in this department and supervise them in their various research projects. Also do various projects relating to Anthropology and Archaeology in Limpopo Province, Mpumalanga, North West Province and Gauteng. Am also in charge of the Museum's section for Heritage Impact Assessment projects. Have done work in this regard in Limpopo Province, Gauteng, Mpumalanga, North West Province, KwaZulu-Natal, Western Province, Botswana, Lesotho and Swaziland. Curated various exhibitions at different museums.

1978 - 1991: Curator of the Anthropological Department of the Museum. Carried out extensive fieldwork in both anthropology and archaeology and HIA projects all over Mpumalanga, Limpopo Province and Gauteng. Curated various exhibitions at different museums.

1976 - 1977: Assistant researcher responsible for excavations at various sites in Limpopo Province and Mpumalanga.

### **PROFESSIONAL ACCREDITATION**

Association for Southern African Professional Archaeologist: Principal Investigator for Iron Age, Colonial Period and Industrial Heritage. Membership no.: 164.

### **MEMBERSHIPS**

Member, Association for Southern African Professional Archaeologists

Member, Anthropology Southern Africa

Member, African Studies Association, Smithsonian Institute, Washington

### **PUBLICATIONS**

Published more than fifty papers on topics relating to anthropology, archaeology, history and impact assessment in various scientific journals - a complete list can be supplied on request.

### **CULTURAL RESOURCE MANAGEMENT PROJECTS**

Did more than 800 impact assessments (archaeological, anthropological and social) for various departments and companies. Projects include power lines, roads, pipelines, dams, mine developments, water purification works, historic landscapes, refuse dumps and urban developments. Clients include the following:

Pretoria City Council; AMCOAL; Anglo-Alpha; Africon; CSIR; Impala Platinum; Conradie, Müller & Associates, Architects; Dept. of Environmental Affairs & Tourism; Akasia City Council; Walmsley Environmental Consultants; HSRC; Rustenburg Platinum Mines; Digby Wells & Associates; Seneque, Maughan-Brown, SWK; Consultburo; BKS Consulting Engineers; Danie Joubert & Associates; Corporate Image; Western Platinum; Environmental Impact Management Services (EIMS); Strategic Environmental Focus (SEF); Oryx Environmental; Loxton, Venn & Associates; Ekokonsult Inc.; Anglo Platinum; Afresearch Index; Gouws Uys & White; Booz-Allen & Hamilton (SA) Ltd; Midrand Metropolitan Council; GLMC; Bohlweki Environmental; Jones and Wagener Consulting Engineers; Kumba Resources, Lephalale, iNtatakusa Africa, Compagnie General de Geophysique; Cymbian Environmental Consultants; Ninham Shand Consulting Services, Exigent; Iliso; Knight-Piesold.



## CURRICULUM VITAE

Name: **Mader Johan van den Berg**  
Qualification: Qualified Landscape Architect  
Date of Birth: 17 September 1980  
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Nationality: South African  
Languages: Afrikaans (mother tongue), English

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### EDUCATIONAL QUALIFICATIONS

- ML(Prof) (Landscape Architecture), University of Pretoria, Pretoria (2004)
- B.SC Hons (Landscape Architecture), University of Pretoria, Pretoria (2003)
- B.Sc, (Landscape Architecture), University of Pretoria, Pretoria (2002)

### PREVIOUS EMPLOYMENT EXPERIENCE

- Self Employed as from January 2007 trading under the name I-scape
- Qualified Landscape Architect at Strategic Environmental Focus (Pty) Ltd (Feb 2005 – Dec 2006). Specialist responsibilities entailed:
  - Visual Impact Assessment
  - Landscape Design
  - Landscape Rehabilitation & Environmental Planning
  - Invader Vegetation Eradication Programming
- Research assistant on the subject of human's visual perception with regards to mine Tailings Disposal Facilities – University of Pretoria (2004)

### KEY COMPETENCIES

- Visual Impact Assessment (VIA)
- Rehabilitation planning for disturbed surfaces
- Environmental Planning
- Landscape Design
- Computer Aided Design (CAD)
- VIA related GIS data interpretation
- Graphic Design



## **SPECIALIST WORKING EXPERIENCE**

### **VISUAL IMPACT ASSESSMENT**

- Eskom Medupi Landfill, Visual Impact Assessment for the proposed Hazardous Waste and General Landfill Facility near Lephalale (Ellisras), in association with Green Contour Landscape Architects. Lead consultant – Envirolution Consulting (Pty) Ltd (2008 – In Progress);
- Hoshoha Resources (Vryheid) (Pty) Ltd, Visual Impact Assessment for the proposed Kariboo Colliery in Kwazulu Natal with emphasis on rehabilitation to minimise negative visual impacts. Lead consultant – uKhozi (Pty) Ltd (2008);
- Calgro M3 Holdings (Pty) Ltd, Visual Impact Assessment for the proposed Fleuhof Ext 2 Residential Development, Gauteng. Lead consultant - Envirolution Consulting (Pty) Ltd (2008)
- Eskom Transmission, Visual Impact Assessment for the construction and upgrade of the proposed 2x400kV power line between Esselen and Northrand Substations and the 2x132kV power line between Northrand and Chloorkop Substations in the Tembisa and Kempton Park region. Lead consultant – BKS (Pty) Ltd (2008);
- Southern Right, Visual Impact Assessment for the proposed multi storey residential development on erf 1235 in the Town of Franskraal, Western Cape, in association with Green Contour Landscape Architects. Lead consultant – Guillaume Nel Environmental Consultants (2008);
- Eskom Transmission, Visual Impact Assessment for the proposed construction of a 132kV power line between Westgate, Tarlton and Kromdraai substations. Lead consultant – Arcuss Gibb (Pty) Ltd (2007-2008);
- eMlomo Mining (Pty) Ltd, Visual Impact Opinion for the proposed Inyoni Colliery on the farms Lettieskeus 105IT & Goedehoop 106IT in Mpumalanga. Lead consultant – KSE – uKhozi Environmentalists (2007);
- Transnet, Visual Impact Assessment for the proposed Phase 2 expansion of the Transnet iron ore handling facility in the Port of Saldanha (2007 – In Progress);
- Ceramics Industries Limited (CIL), Visual Impact Scan for the proposed Gryphon Tile Factory in Vereeniging (2007);
- Exigent Engineering Consultants on behalf of Interdesign Landscape Architects (PTY) Ltd, Feasibility study for the proposed Roodevallei Development in Mogale City (2007);
  - Completing a Visual Resource Assessment and providing a Visual Impact Opinion on the proposed development of the Farm Lindley 528-JQ to inform a feasibility study.
- Transnet, Expansion of the Iron Ore Facility in the Saldanha Bay – Phase 2, Western Cape (2007);
  - Mentoring of Mr. G Griesel from Strategic Environmental Focus (Pty) Ltd. Assisting in the compilation and revision of the draft VIA report.
- Ubombo Sugar (Pty) Ltd, Visual Impact Assessment for the expansion of the Current Power Generation Capacity of the Ubombo Sugar Mill, Big Bend, Swaziland (2006);

- SIP Project Managers (Pty) Ltd, Visual Impact Assessment for the proposed Pearls of Umhlanga residential towers and retail development in KwaZulu Natal (2006);
- Eskom Generation, Visual Impact Assessment for the proposed Kendal Coal-fired power station in Mpumalanga (2006);
- Eskom Generation, Visual Impact Assessment for the proposed Coal-fired power station in the Northern Free State, (2006);
- Eskom Transmission, Visual Impact Assessment for the Kudu Integration Project which included the construction of a 400 km transmission power-line from Alexander Bay to Vredendal and upgrading of associated substations, Northern Cape (2006);
- Kalahari Resources (Pty) Ltd, Visual Impact Assessment for the proposed establishment of the Kalahari Manganese Mining Project on the farms Olive Pan 282, Gama 283 and Umtu 281, Northern Cape (2006);
- Ekurhuleni Metropolitan Municipality, Visual Impact Assessment for the proposed establishment of a GLB landfill site on the farm Zesfontein 271R, Benoni, Gauteng (2005);
- Silverstar Development Limited, Visual Impact Assessment for the proposed West Rand Casino, Mogale City, Gauteng (2005);
- Eskom Distribution, Visual Impact Assessment for the proposed 45 km long 132kV power distribution line, Free State (2005);
- Trans-Caledon Tunnel Authority, Visual Impact Assessment for the construction of a 115 km pipeline from the Vaal Dam near the Vaal Marina to the Knoppiesfontein diversion tank, between Charl Cilliers and Secunda (2005);
- Celebration Northriding (Pty) Ltd, Visual Impact Assessment for the proposed establishment of Celebration Northgate Development, Johannesburg, Gauteng (2005);
- Johannesburg Roads Agency (Pty) Ltd, Visual Impact assessment for the proposed Ormonde Link Road, Johannesburg, Gauteng (2005);

#### **LANDSCAPE REHABILITATION**

##### **Mine Closure Cost Quantification:**

- Platinum Australia – Kalplats, for the quantification of closure costs as part of a Bankable Feasibility Study based on the Department of Minerals and Energy closure quantum determination best practice guidelines and in association with Arbol Consulting. Located near Stella, North West Province (In progress);
- Xtrata Alloys – Thorncliffe and Helena Chrome mines, for the quantification of closure costs of both active mines based on the Department of Minerals and Energy closure quantum determination best practice guidelines and in association with Arbol Consulting. Located between Roosenekal and Steelpoort, Limpopo Province (2007);

##### **Alien Vegetation Management Program:**

- Vini's International Trading (Pty) Ltd, for the proposed establishment of the township Paulshof ext. 78, on holding 6 Airdlin Agricultural Holdings (A.H.), Sunninghill, Johannesburg (2006);

**Resource Management and Planning:**

- Department of Water Affairs and Forestry (DWAF), Inyaka Dam Resource Management Plan, Bushbuck Ridge, Mpumalanga (2006):
  - Source baseline data and information;
  - Compile sections of the Encumbrance Report;
  - Attend Technical Task Team meetings; and
  - Compile sections of the Draft Resource Management Plan;

**Environmental Management Planning:**

- City of uMhlathuze, Relocation of Biodiversity Assets and Rehabilitation, KwaZulu Natal, Richards Bay, (2006):
  - Compile section of the Environmental Management Plan (EMP);
  - Compile Tender Specifications;

**Landscape Rehabilitation:**

- Ceramic Industries Ltd; Re-vegetation and implementation of a 1ha disturbed area at the Pegasus Export Facility, Vereeniging, Gauteng (2008);
- Ceramic Industries Ltd, Landscape rehabilitation (design and supervision) of the existing Steelpark clay quarry, Vereeniging, Gauteng (2005-2006);

**Landscape Rehabilitation:**

- Highveld Crushers, Landscape rehabilitation program for the proposed expansion of the stone aggregate quarry, Standerton, Mpumalanga (2006);

**Alien Vegetation Management Program:**

- Zuara Investments, For the establishment of the township Barbeque Downs ext. 29 Bothasfontein 408-JR, Midrand (2006);

**LANDSCAPE DESIGN**

**Landscape Master Plan Development:**

- Burrie Smit Developers, Cashan X7 Residential Development on the Remainder of Portion 43 of the farm Waterval 306JQ in Rustenburg, North West Province (2006);

**Landscape Development Guidelines:**

- Mr. Howard Walker, The Proposed Establishment of a Resort on Portion 38 of the farm Lunsklip 105JT (2006);

**PUBLICATIONS**

- Van Deventer, H and Van den Berg, M. 2006. *Using GIS visibility analysis in visual impact assessments*. Position IT July/Aug 2006. pp. 33-35.
- *Sustainable Tailings Impoundment Landform Design: Rational Decision Making for the Sustainable Configuration of Tailings Impoundments* (Paper and presentation at Camber of Mines Conference, 2005)