

Private and Confidential

DEWALD KAMFFER

Resume



Profile

Key Skills & Attributes

Personal Details

Employment History

Referee Details

Curriculum Vitae ~ Dewald Kamffer

PRECIS

Personal Details:

- Born in and current resident of South Africa
- 33 year old white male in good health
- Married without children
- Interests include wildlife photography and sports
- Proficient in English writing, reading and speaking

Academic History:

- B.Sc.(Zoology & Entomology); University of Pretoria (1995)
- B.Sc.(Hons)(Entomology); University of Pretoria (1996)
- M.Sc.(Grassland Conservation Ecology); University of Pretoria (2004)

Career History:

- 2001: Game Ranger at Mala-Mala Private Game Reserve
- 2002-2009: Director and Senior Environmental Specialist of Ecocheck (faunal specialist EIA company)

Professional Affiliation:

- Ecological and Zoological Scientist with the South African Council for Natural Scientific Professions (400204/05)

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Post Graduate Study: M.Sc.

Community-level effects of fragmentation of the afro-montane grassland in the escarpment region of Mpumalanga, South Africa

Supervisor: Prof. J.W.H. Ferguson

Co-Supervisor: Prof. A.S. Van Jaarsveld

ABSTRACT

Large scale afforestation, resulting in habitat destruction and fragmentation of the afro-montane grassland in the Drakensberg escarpment of Mpumalanga, South Africa, has led to the necessity of describing the flora and fauna aspects of the remaining grassland fragments, allowing forestry companies to mitigate the effects of afforestation on the biodiversity of these fragments and for initiating a management program for the remaining grassland. This study aims, firstly, to determine if any marked human-induced disturbance to the plant communities in the grassland fragments has occurred. I do this by comparing the plant communities of eighteen fragments with those of six control plots outside of the plantations with no marked disturbance to the grassland, by determining whether the plant assemblages in the fragments can be assigned to any of the natural and intact plant communities that Matthews (1993) described from a large-scale survey of undisturbed mountain areas and by ascertaining the presence of any known intruder plant species within the fragments. I also compare the faunal biodiversity in grassland fragments within afforested areas to that of control plots in undisturbed grassland and determine to which degree the Coleoptera, Orthoptera, Lepidoptera and bird communities reflect recognized plant communities, and are restricted to specific plant communities. Secondly, the study aims to compare the habitat specificity (degree of stenotopy) of the different taxonomic groups and trophic levels of animals and to make recommendations for the conservation of the

Afromontane grassland fauna in the remaining grassland fragments in afforested areas. Thirdly, I aim to quantify the effect of several environmental characteristics (slope, rainfall, geology, etc) on the faunal community structure of the grassland fragments, to quantify the effects of degree of isolation on species richness, species diversity and assemblage structure of plants, insects and birds in grassland remnants and to test for the effects of edges on the extant insect biodiversity in the grassland fragments inside plantations. Lastly, the study aims to quantify the effects of fragment size on species richness, species diversity and assemblage structure of plants, insects and birds and to rank the grassland fragments in an order of conservation importance using factors such as biodiversity and uniqueness of the floral community. The results indicate that afforestation and habitat fragmentation have not significantly impacted on the flora of the grassland fragments. Fragments are still identifiable as natural communities, described by previous workers during provincial-scale surveys. Also, no obvious invader – or disturbed plant communities are discernible even though some of the fragments have been isolated for as long as 40 years and the plant communities of conservation importance described by previous workers coincide with the important communities recognized in this study. Rare and endangered plant species, as well as species endemic to the region, are more frequently found on the scarce Black Reef quartzite of the region, which is more evident to the Northern part of the study area. Two plant communities are of particular conservation importance, not only as a result of their geological base, but also because of the high risk associated with the few grassland examples left of these communities. The high levels of habitat specificity of many of the taxonomic and trophic faunal groups indicate that many of the invertebrate taxa are probably endemic to the region, and that the plant endemism encountered in the Afromontane grasslands is reflected by a similar degree of animal endemism. The similarity in faunal assemblages and

diversity between isolated fragments and large areas of grassland emphasizes the conservation importance of the fragments, even when smaller than 5 Ha in extent. Fragments therefore have a high conservation importance, since they represent natural grassland areas and are sometimes the only representative of a particular plant community remaining in the area. I detected no significant edge effects on the faunal communities 10, 20 and 50 meters from the edge of the plantation. Birds (and probably other vertebrates in these grasslands) are affected by fragment size, while invertebrates are much less affected and plants do not show any measurable effect of fragment size. Fragments in the wetter northern part of the study area, characterized by high levels of plant endemism, have a higher conservation importance as judged by faunal biodiversity. Experimental management involving grazing, mechanical cutting, grazing and burning is needed to derive an efficient management plan, so that the grassland biodiversity can be conserved in a planned way. Such work will also allow empirical testing of the efficiency of the indicator species suggested in this study.

Work experience as faunal Environmental Impact Assessment specialist for ECOCHECK

Summary: 153 projects in eleven provinces and three countries. Projects include linear structures such as roads, pipelines and power lines; as well as residential developments and various mines.

<u>YEAR</u>	<u>LOCATION</u>	<u>PROJECT</u>	<u>CLIENT</u>
2002	Gauteng, South Africa	Giel v/d Berg residential development	Die Giel v/d Berg Trust
2002	Mpumalanga, South Africa	Carlswald opencast coal mine	Tribal Consultants
2002	Mpumalanga, South Africa	CBM opencast coal mine	Tribal Consultants
2002	NW Province, South Africa	Brakspruit granite mine	Helio Alliance
2002	Gauteng, South Africa	Supplier Park industrial development	Tribal Consultants
2002	Mpumalanga, South Africa	Hartbeesfontein mine	Eco-Afrika Consulting
2002	Gauteng, South Africa	Willows residential development	EkoInfo
2003	Kwazulu-Natal, South Africa	Utreghht mine	GCS
2003	Mpumalanga, South Africa	Roosenekal opencast mine	Eco-Afrika Consulting
2003	Gauteng, South Africa	Cradle-of-humankind development	Eco Assessments
2003	Gauteng, South Africa	Summerset residential development	Tribal Consultants
2003	Gauteng, South Africa	Amandasig residential development	EkoInfo

2003	Gauteng, South Africa	Olienhoutbosch residential development	Tribal Consultants
2003	Gauteng, South Africa	Kromdraai development	Eco Assessments
2003	Gauteng, South Africa	Feather Wood residential development	Eco Assessments
2003	Gauteng, South Africa	Supplier Park 2 industrial development	Tribal Consultants
2003	Mpumalanga, South Africa	Highlands Gate Golf Estate development	Eco Assessments
2003	Gauteng, South Africa	Irene Township development	Tribal Consultants
2003	NW Province, South Africa	Frontier granite mine	Helio Alliance
2003	Gauteng, South Africa	Sterrewag residential development	EkoInfo
2003	Gauteng, South Africa	Brakfontein development	Tribal Consultants
2003	Gauteng, South Africa	Valley View residential development	Tribal Consultants
2003	Gauteng, South Africa	Bordeaux residential development	EkoInfo
2003	Gauteng, South Africa	Randjiesfontein equestrian development	EkoInfo
2004	Gauteng, South Africa	Olienhoutbosch road	KV3 Engineers
2004	NW Province, South Africa	Sun City vacation club development	Sun International
2004	Free State, South Africa	Reitz Quelea research project	Agri Research Council
2004	Gauteng, South Africa	Louwleria residential development	Tribal Consultants
2004	Gauteng, South Africa	Maruladal development	Tribal Consultants
2004	Gauteng, South Africa	Craigavon residential development	Tribal Consultants
2004	Northern Cape, South Africa	Frances Baard municipality SEA	EkoInfo

2004	Mpumalanga, South Africa	Schoonoord coal mine	African EPA
2004	Gauteng, South Africa	Witkoppen residential development	Tribal Consultants
2004	Gauteng, South Africa	Valley Farm development	Plan Practice
2004	Gauteng, South Africa	Heaven-on-earth residential development	EkoInfo
2004	Limpopo Province, South Africa	BJF Game Range Environ. Audit	EkoInfo
2004	Gauteng, South Africa	Broadacres residential development	EIMS (Pty) Ltd
2005	Gauteng, South Africa	Silverton residential development	BEC
2005	Mpumalanga, South Africa	Lakenvlei development	African EPA
2005	Limpopo Province, South Africa	Leopard's Bend Lodge development	EkoInfo
2005	Gauteng, South Africa	Honingklip residential development	EkoInfo
2005	Gauteng, South Africa	Modderfontein development	EkoInfo
2005	Gauteng, South Africa	North Riding residential development	Tswelopele Environ.
2005	NW Province, South Africa	Amarosa development	BEC
2005	NW Province, South Africa	Waterval residential development	BEC
2005	Gauteng, South Africa	Lion Park development	EkoInfo
2005	Vilanculos, Mozambique	Lula Lodge Environmental Audit	EkoInfo
2005	Mpumalanga, South Africa	Impomelelo development	EkoInfo
2005	Limpopo Province, South Africa	Kololo Lodge development	EkoInfo
2005	Gauteng, South Africa	Paardeplaats development	Landev (Pty) Ltd

2005	Gauteng, South Africa	Cashan residential development	BEC
2005	Limpopo Province, South Africa	Matimba B Power Station	ESKOM
2005	NW Province, South Africa	Elandsfontein residential development	EkoInfo
2005	Gauteng, South Africa	Rietvallei development	EkoInfo
2005	Mpumalanga, South Africa	Middelkraal opencast coal mine	African EPA
2005	Gauteng, South Africa	Simon Vermooten Road extensions	BEC
2005	Gauteng, South Africa	Klapperkop SEA	EkoInfo
2005	Gauteng, South Africa	The Hills residential development	EkoInfo
2005	Gauteng, South Africa	Wallmansthal development	BEC
2005	Gauteng, South Africa	Waterkloof Heights residential development	BEC
2005	NW Province, South Africa	Beau Rivage residential development	BEC
2005	NW Province, South Africa	Le Chateau residential development	BEC
2005	Gauteng, South Africa	Zuickerboschfontein residential development	Zuicker. Property Trust
2005	Gauteng, South Africa	Garsfontein residential development	BEC
2005	Gauteng, South Africa	Rooihuiskraal residential development	EkoInfo
2006	Limpopo Province, South Africa	Kapama Game Lodge development	EkoInfo
2006	Free State, Northern Cape - SA	Perseus-Hydra high voltage power line	ESKOM
2006	NW Province, South Africa	Schurveberg residential development	Viking Properties 330
2006	NW Province, South Africa	De Rust development	BEC

2006	Gauteng, South Africa	Zesfontein landfill site	Ekurhuleni Municipality
2006	Mpumalanga, South Africa	Zone-of-Integration development	BEC
2006	Gauteng, South Africa	Doornkraal development	BEC
2006	Gauteng, South Africa	Zwartkoppies residential development	BEC
2006	Gauteng, South Africa	Rigel South Risk Assessment	EkoInfo
2006	Gauteng, South Africa	SWM development	Germiston Uitgewers
2006	Gauteng, South Africa	Boschkop residential development	Viking Properties 330
2006	Gauteng, South Africa	Donkerhoek residential development	BEC
2006	Gauteng, South Africa	Willowbrae residential development	Vexma Properties
2006	Gauteng, South Africa	Equestria residential development	ASG Rental Solutions
2006	Mpumalanga, South Africa	Mareesburg mine extension	BEC
2006	Gauteng, South Africa	Sedibeng township development	EkoInfo
2006	Gauteng, South Africa	Cullinan residential development	EkoInfo
2006	Gauteng, South Africa	Bronberg South residential development	EkoInfo
2006	Limpopo Province, South Africa	Koedoesfontein Lodge development	EkoInfo
2006	Gauteng, South Africa	Voortrekker Monument development	EkoInfo
2006	Gauteng, South Africa	Zambezi residential development	EkoInfo
2006	Gauteng, South Africa	Midrand residential development	EkoInfo
2006	Central District, Botswana	Mmamabula opencast coal mine	EkoInfo

2006	Gauteng, South Africa	Jameson Field residential development	BEC
2006	Gauteng, South Africa	Olympus Agric Holdings development	BEC
2006	Gauteng, South Africa	Willows 281 residential development	BEC
2006	Gauteng, South Africa	Fountains Valley development	EkoInfo
2006	Mpumalanga, South Africa	Xstrata opencast coal mine	Xstrata Coal
2006	Limpopo Province, South Africa	Soutpansberg mining operation	ERM
2006	Free State, South Africa	Vredefort Dome SEA	African EPA
2006	Mpumalanga, South Africa	Trichardt residential development	Prohibio
2006	Limpopo Province, South Africa	Musina Weigh Bridge	BEC
2007	Gauteng, South Africa	Ashlea Gardens residential development	BEC
2007	Gauteng, South Africa	Gautrain	BEC
2007	Limpopo Province, South Africa	Thorncliff mine	AGES SA
2007	Gauteng, South Africa	Shoshanguve residential development	EkoInfo
2007	Gauteng, South Africa	Rabie Ridge residential development	BEC
2007	Mpumalanga, South Africa	R40 (Nelspruit-Baberton) road extensions	BEC
2007	Gauteng, South Africa	Dainfern residential development	Golden Creek Investments
2007	Limpopo Province, South Africa	Vhurivhuri tribal area development	BEC
2007	Gauteng, South Africa	Kliprivier development	Kenric Investments
2007	Gauteng, South Africa	Kievietskroon residential development	EkoInfo

2007	Gauteng, South Africa	The Hills Road	EkoInfo
2007	Gauteng, South Africa	Raslouw residential development	EkoInfo
2007	Gauteng, Mpumalanga - SA	Petronet multipurpose pipeline	BEC
2007	Central District, Botswana	TATI Nickel mine	Marsh Vikela
2007	Gauteng, South Africa	Newmarket residential development	BEC
2007	Gauteng, South Africa	Leeupoort residential development	BEC
2007	Gauteng, South Africa	Bultfontein residential development	BEC
2007	Mpumalanga, South Africa	Steelpoort mining	BEC
2007	Gauteng, Limpopo - South Africa	Marang high voltage power line	ESKOM
2007	NW, Limpopo - South Africa	Dinaledi high voltage power line	ESKOM
2007	Gauteng, South Africa	Klipdrift residential development	BEC
2007	Gauteng, South Africa	Selcourt residential development	BEC
2007	Gauteng, South Africa	Pienaarspoort residential development	Krysanthe Properties
2007	Eastern Cape, South Africa	Xolobeni mine	Pachnoda Consulting
2007	Limpopo Province, South Africa	Rockdale Ferrochrome mine	BEC
2007	NW Province, South Africa	PTM platinum mine	Oryx Environmental
2007	Limpopo Province, South Africa	Mmamabula-delta high voltage power line	ESKOM
2007	Gauteng, South Africa	Mooiplaats residential development	Pachnoda Consulting
2007	Mpumalanga, South Africa	Schoemanskloof residential development	GO EnviroScience

2008	Limpopo Province, South Africa	Cooyong residential development	Polygon Environ. Planners
2008	Central District, Botswana	Selkirk Lionore mine	AGES SA
2008	Gauteng, South Africa	SANRAL KVV3 road	Jeffares and Green
2008	Ghanzi District, Botswana	GOPE diamond mine (Central Kalahari)	Marsh Vikela
2008	Gauteng, South Africa	Ingwenya Lodge development	EkoInfo
2008	Mpumalanga, South Africa	Boulders-Malelane high voltage power line	ESKOM
2008	Gauteng, South Africa	Crystal Park residential development	BEC
2008	Gauteng, South Africa	Klipdrift Weir	Magalies Water
2008	Mpumalanga, South Africa	Majuba power generation plant	ESKOM
2008	NW Province, South Africa	Sun City golf course development	Sun International
2008	Mpumalanga, South Africa	Dorstfontein Coal Mine	GCS
2008	NW Province, South Africa	Lonmin Mine: Biodiversity Assessment	EkoInfo
2008	Gauteng, South Africa	Houtkop Development	BEC
2008	Gauteng, South Africa	Willow Park Development	Zotec Developments
2008	Gauteng, South Africa	Fairland Road Development	Arcus Gibb
2008	Gauteng, South Africa	Klipdrift Water Works, Pienaars River	Enviro-Namic
2008	NW Province, South Africa	Waste Management Services Assessment	GCS
2008	OFS & Northern Cape, SA	Perseus-Hydra Power Line Walk Down	EkoInfo
2008	KZN & Mpumalanga, SA	Majuba-Venus Power Line EIA	EkoInfo

2008	NW Province, South Africa	Watershed – Mmabatho Power Line	BEC
2008	Mpumalanga, South Africa	Kusipongo Red data assessment	BEC
2008	Gauteng, South Africa	Greenfield Expansion Development	BEC
2008	Limpopo Province, South Africa	Medupi Borrow Pits	BEC
2009	Mpumalanga, South Africa	Kangra Site Selection	BEC
2009	Mpumalanga, South Africa	Maquasa West	BEC
2009	Gauteng, South Africa	Elandsfontein Development	BEC
2009	Gauteng, South Africa	Crystal Park Development	BEC
2009	Gauteng, South Africa	Doornpoort Development Wetland Mammals	First Land Developments
2009	Gauteng, South Africa	NECSA pipelines assessment	EIMS
2009	OFS & Mpumalanga, SA	GNP SASOL Pipeline	SPEC
2009	Limpopo Province, South Africa	Leopard’s Bend Lodge development	EkoInfo
2009	Gauteng, South Africa	Springvalley Development	BEC
2009	Gauteng, South Africa	Glockner – Kookfontein Power Lines	Baagi
2009	NW & Limpopo Provinces, SA	Delta-Epsilom Power Lines	BEC
2009	Gauteng, South Africa	Klipfontein Development	BEC
2009	Mpumalanga, South Africa	Boulders-Malelane Power Lines	BEC
2009	NW Province, South Africa	Watershed-Sephaku Power Lines	BEC