

ABRIDGED CURRICULUM VITAE

LESLIE ROBERT BROWN
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Personal details

Title: Professor
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Personal profile

He is and an applied ecologist with a particular interest in plant communities. His research focuses on the classification and description of southern African ecosystems as the basis for the appropriate management of natural areas. His research is directed at long-term studies of plant communities and wetlands (classification, description and assessment of conservation status) in relation to local climate, the identification of different environmental gradients within and between communities, and the reaction of communities to different patterns of land use and management practices. He is the main author of a publication setting the guidelines for vegetation phytosociological (classification) surveys in southern Africa. He was on the editorial board of the *South African Journal of Botany* and is currently on the editorial board of an international journal *Phytocoenologia*, while also serving as a section editor for *Koedoe*. He has collaborative research projects with various organisations/institutions nationally and internationally. He is a member of both the Quality Assurance Committee of SACNASP and the International Association of Vegetation Scientists Vegetation Classification Working Group. He has served as an evaluator of qualifications in the botanical sciences for the South African Council for Scientific Professions, been an advisory committee member of the African Vegetation and Plant Diversity Research Centre at the University of Pretoria, an executive board member of the Institute of Environment and Recreation Management of SA, and secretary of the SAASA (2002-2004), chairperson of the Professional Affairs Committee for the Grassland Society of southern Africa. He is also a board member of Elephants Alive: South Africa, a member of the evaluating committee of the Senior Captain Scott Memorial Medal for Biology for the SAASA.

Specialisation

- Vegetation impact assessments (Grassland, Savanna & Nama-karoo Biomes)
- Botanical surveying
- Vegetation mapping
- Wetland delineation
- Veld management & restoration
- Veld condition & grazing capacity
- Bush encroachment/ densification monitoring
- Game farm planning & vegetation management

Qualifications

- 1982: BSc (Ed), Univ. of Jhb, Botany, Zoology and Education as majors.
1983: BSc Hons. Botany, Univ. of Jhb
1986: MSc Botany (Freshwater Ecology) - Univ. of Jhb
1998: PhD (Plant Ecology), University of Pretoria.

Professional qualifications / courses

- 2008: DWAF Wetland/riparian delineation course for wetland consultants
2008: Short course in soil classification and wetland delineation
2008: HEQC Assessors course *Cum Laude*
2009: BTec. Project Management (UK) *Cum Laude*

Professional titles

Pri.Sci.Nat (Professional member of the South African Council for Natural Scientific Professions) – Botany & Ecology
MGSSA (Professional member of the Grassland Society of Southern Africa)

Scientific involvement

Author of:

- 240+ scientific reports on natural resources and utilisation.
- 68 scientific papers published in accredited and non-accredited scientific/other journals.
- 60 papers/posters at national and international congresses
- 11 invited talks as workshops, interest groups, societies etc.
- 2 Scientific reports published by WRC.
- 6 commissioned research projects
- Co-author of the book titled "The story of Life and the Environment: and African perspective"
- 5 chapters in scientific books

Related experience

- Ecological consultant (21 years) for vegetation impact assessments, wetland delineation and game farm planning for more than 220 projects.

Research

- Conducts research on various vegetation ecological projects throughout SA, Lesotho, Swaziland, Zanzibar & Tanzania (veld condition assessments, grazing capacity, wetland ecology, bush encroachment, plant community classification and dynamics)
- Various master's and doctorate projects on vegetation ecology and wetland ecology.

- Long-term successional changes in vegetation composition and cover in the Nama karroo.
- Restoration of old fields in Gauteng
- The effect of fire on long-term fire breaks in the sourish mixed bushveld.
- The vegetation ecology of urban open spaces in Gauteng.
- The development of a tree appraisal model for the urban environment of South Africa
- The phytosociology of the Natural Vegetation occurring in the Cradle of Humankind, World Heritage Site; Gauteng, South Africa.
- Wetland delineation and vegetation classification in Gauteng and Maputoland.
- Assessment of variable buffer zones for rocky ridge vegetation in Gauteng

Industry research projects

- Cleaver G, Brown LR, Bredenkamp GJ, Smart MC & Rautenbach CJ de W. 2003. Assessment of environmental impacts of ground water abstraction from Table Mountain Group (TMG) aquifers on ecosystems in the Kammanassie Nature reserve and environs. Water Research Commission Report No. 1115/1/03. pp 250.
- Cleaver G & Brown LR (Eds). 2005. Wetland restoration: Nuwejaars, Heuningnes, Kars and Ratel wetland and river systems: Information *status quo* report and recommendations. Report to the Department of Agriculture: Western Cape. Project No. AGRI00239/0001, pp. 193.
- Brown, LR, Marais H, Barrett, L & Henzi P. 2006. Habitat structure, population characteristics and resource utilization by Chachma baboons in commercial forestry areas of the Mpumalanga Escarpment. Report to GLF & KLF, 2006.
- Brown L.R., Hendrick R.M., Dithlale G.N & Filmlalter N. 2009. Alien vegetation survey at the Zwartkoppies, Zuikerbosch, Eikehof, Mapleton, Palmietfontein, Panfontein and Vereeniging Rand Water sites, Gauteng. Applied Behavioural Ecology & Ecosystem Research Unit, University of South Africa, pp. 111.
- Le Roux A & Brown LR. 2010. The vegetation of the rocky hill range on the northern edge of the Brandvlei dam, Western Cape (prepared for DWAF). Applied Behavioural Ecology & Ecosystem Research Unit, University of South Africa, pp. 30.
- Brown L.R., Dithlale G.N & Hendrick R.M. 2011. Alien vegetation survey at the Amanzimtoti Barrage, Blyvooruitzicht, Daleside, Driefontein, Langerand, Libanon, Meyerton, Sasolburg, Spioenkop and Zuurbekom, Rand Water sites, Gauteng. Applied Behavioural Ecology & Ecosystem Research Unit, University of South Africa, pp. 95.
- Brown L.R., Koen, D. & Dithlale G.N. 2011. A vegetation and wildlife management plan for the Rietvlei Nature Area Rand Water Alberton. Applied Behavioural Ecology & Ecosystem Research Unit, University of South Africa, pp. 65.
- Filmlalter N & Brown LR. 2013. Best management practices for environmental rehabilitation. Applied Behavioural Ecology & Ecosystem Research Unit, University of South Africa, pp. 140.

- Bezuidenhout, H., Brown, L.R. & Bradshaw, P. 2015. Broad vegetation description for Mountain Zebra National Park, Eastern Cape, South Africa. Internal SANParks report. South African National Parks, Scientific Services, Kimberley.
- Brown L.R. 2016. Audit report on the management of alien invasive species at the Zwartkopjes, Zuikerbosch, Vereeniging and Panfontein Rans Water sites, Gauteng. Applied Behavioural Ecology & Ecosystem Research Unit, University of South Africa, pp. 114.
- Bezuidenhout, H., Novellie, P. & Brown, L.R. 2016. Fire management plan for Mountain Zebra National Park. Internal SANParks report. South African National Parks, Scientific Services, Kimberley.
- Brown, LR; Muller, M; Brand, ME & Patrocinio, SC. 2019. Environmental Management Plan for: Alberton (Klipriver Road), pipeline C3/C5/C7/C10/C11/C24 ; Alberton (Swartkoppies), pipeline B13 & Brackendowns, pipeline B4/C19/C8. Applied Behavioural Ecology & Ecosystem Research Unit, University of South Africa, pp. 25.

Current research & selected publications

Projects

Vegetation classification & management plan for the Serengeti grassland and savanna system of Kleins Camp, Tanzania.

Vegetation classification and animal behaviour of Aders Duiker on Mnemba Island, Zanzibar.

Soil properties and vegetation composition of five wetland systems on the Maputaland coastal plain, KZN

Wetland systems and hydrology of Telperion Nature Reserve, Mpumalanga.

Publications

Borrel A.J., Brown L.R. & Slater K. 2011. Chemical control of invasive *Psidium guajava* in Swaziland: A preliminary assessment of costs and efficacy. African Journal of Agricultural Research Vol. 6(14), pp. 3291-3297

Du Preez PJ & Brown LR 2011. Impact of domestic animals on ecosystem integrity of Lesotho high altitude peatlands, in O. Grillo and G. Venora (eds.), *Ecosystems Biodiversity*, Intech, pp 249-270, ISBN 978-953-307-417-7

Stewart, P., Brown L.R., Richards, G. & Bernard, A. 2012. An alternative baiting method of Yellow Crazy Ants (*Anoplolepis gracilipes*) on Christmas Island, Indian Ocean. International Journal of Ecology & Development 23 (3): 40-59

Tranter, A., Brown L.R. & Barrett A.S. 2013. Analysis of three techniques for controlling invasive *Lantana camara* in Swaziland. African Journal of Agricultural Research, DOI:10.5897/AJAR2013.6889, Vol. 8(34), pp. 4427-4433

Pretorius ML, Brown LR & Bredenkamp G.J. & Van Huyssteen CW. 2014. The ecology and species richness of the different plant communities within selected wetlands on the Maputaland Coastal Plain, South Africa, In O. Grillo (ed.), *Biodiversity – The dynamic balance of the planet*, Intech, DOI: 10.5772/58219, pp 275-296, ISBN: 978-953-51-1315-7.

Fraser L.H., Pither J, Schmidt A, Jentsch A, Sternberg M, Zobel M, Maskarizadeh D, Bartha S, Beierkuhnlein C, Bennett J, Bittel A, Boldgiv B, Boldrin I.I., Bork E., Brown L.R, Cabido M, Cahill J, Carlyle C.N, Campetella G, Chelli S, Cohen O, Csergo A, Díaz S, Enrico L, Ensing D, Fidelis A, Foster B, Garris H, Goheen J.R, Henry H.A.L, Hoffmann S, Hohn M, Jouri M, Klironomos J, Koorem K, Lkhagva A, Lodge R.L, Long R, Manning P, Mitchell R, Moora M, Müller S.C, Nabinger C., Naseri K, Overbeck G.E, Palmer T.M, Parsons S., Pesek M, Pillar V.D, Pringle R.M, Roccaforte K, Shang Z, Stahlmann R, Stotz G, Sugiyama SI, Szentes S, Thompson D, Tungalag R, Undrakhbold S, Van Rooyen M, Wellstein C, Wilson J.B, Zupo T. 2015. Worldwide evidence of a unimodal relationship between productivity and plant species richness. *Science* 17: Vol. 349 no. 6245 pp. 302-305. DOI: 10.1126/science.aab3916.

Pretorius, M.L., Brown, L.R., Bredenkamp, G.J. & van Huyssteen, C.W. 2016. An insight into the vegetation ecology of wetland types on the Maputaland Coastal Plain. *Phytocoenologia*. 46 (2), 125–139. DOI: 10.1127/phyto/2016/0057

Pretorius, ML, van Huyssteen, C & Brown LR. 2017. Soil color indicates carbon and wetlands: developing a color-proxy for soil organic carbon and wetland boundaries on sandy coastal plains in South Africa. *Environmental Monitoring and Assessment* 189:556. DOI: 10.1007/s10661-017-6249-z.

Bootsma, A., Elskehawi, S., Grootjans, A, Grundling, P.L., Khosa, S., Butler, Brown, L.R., & Shot, P. 2019. Anthropogenic disturbances of natural ecohydrological processes in the Matlabas mountain mire, South Africa. *South African Journal of Science* 15(5/6) 9 pages <https://doi.org/10.17159/sajs.2019/5571>.

STOTZ G.C., CAHILL JR. J.F., BENNETT, J.A., CARLYLE, C.N., BORK, E.W., ASKARIZADEH, D., BARTHA, S., BEIERKUHNLEIN, C., BOLDGIV, B., **BROWN, L.R.**, CABIDO, M., CAMPETELLA, G., CHELLI, S., COHEN, O., DÍAZ, S. ENRICO, L, ENSING, D., ERDENETSETSEG, B., FIDELIS, A., GARRIS, H.W., HENRY, H.A.L., JENTSCH, A., JOURI, M.H., KOOREM, K., MANNING, P., MITCHELL, R., MOORA, M., OVERBECK, G.E., PITHER, J., REINHART, K.O., STERNBERG, M., TUNGALAG, R., UNDRAKHBOLD, S., VAN ROOYEN, M., WELLSTEIN, C., ZOBEL, Z., FRASER, L.H. 2019. Not a melting pot: plant species aggregate in their non-native range. *Global Ecology and Biogeography*. DOI:10.1111/geb.13046.

GRAHAM, S; BROWN, L.R. & BARRETT, A.S. 2020. Impact of *Seriphium plumosum* densification on Mesic Highveld Grassland biodiversity in South Africa, v2, Dryad, Dataset, <https://doi.org/10.5061/dryad.2547d7wmt>.

Membership

- Past President of the Grassland Society of Southern Africa (GSSA).
- Member of the South African Association of Botanists (SAAB).
- Professional Member of the Grassland Society of Southern Africa (GSSA)
- Member of the Association for the Taxonomic study of the Flora of Tropical Africa (AETFAT)
- Founder Member of the South African Chapter of the International Association of Vegetation Scientists (IAVS)
- Member of the Botanical Society of South Africa (BOTSOC)

Selected Reports since 1995 (A full list can be provided upon request)

Management plans

Bredenkamp, G.J., Brown, L.R., Siebert S.J., Du Plessis F, Grobler A, Kellerman L & Steenkamp Y. 2000. The vegetation and wildlife management of the Buffelsfontein Nature Reserve, Vaalwater. Ekotrust cc. 78p

Brown LR, Jackson N & Henning B. 2002. A vegetation and wildlife management plan for Kudu Canyon Game Farm, Limpopo. Enviroguard Ecological Services cc

Brown LR & Bredenkamp GJ. 2003. A report on the effect of fire and grazing vs grazing only on the vegetation of the Makgokolo Game Farm, Limpopo. Enviroguard Ecological Services cc

Brown LR, Bredenkamp GJ, Mostert THC & Mostert RE. 2005. A vegetation and wildlife management plan for the farm Bezuidenhoutshoek, Mpumalanga. Enviroguard Ecological Services cc

Brown LR. 2009. An ecological management plan for Naturena Extension 29, Gauteng. Enviroguard Ecological Services cc.

Le Roux A & Brown LR. 2011. A search for viable populations of rare and endangered plant species in natural areas on Romansrivier, Western Cape. Enviroguard Ecological Services cc.

Brown LR, Cook CL & van der Merwe V. 2012. A preliminary report on the biodiversity of the Thaba Tholo game farm, Limpopo Province. . Enviroguard Ecological Services cc.

Brown LR, Koen D, O'Donaghue T & Muller M. 2015. A vegetation and wildlife management plan for the Kamonande Private Game Farm, Limpopo. . Enviroguard Ecological Services cc.

Flora & Fauna ecological assessments

Bredenkamp, G.J. & L.R. Brown 1998. A vegetation assessment of the northern areas of the Northern Metropolitan local Council. Ekotrust cc. 50p.

Bredenkamp, G.J. & L.R. Brown 1998. A vegetation assessment of the open spaces in the Western Metropolitan local Council area. Ekotrust cc. 54p.

Bredenkamp, G.J. & Brown, L.R. 2000. Lesotho Highlands Water Scheme: A vegetation evaluation report for the proposed new dams at Clarens and Suikerbosrand and the proposed new pipeline. Ekotrust cc. 29p.

Brown, L.R.; Bredenkamp, G.J. & Siebert, F. 2003. Report on the vegetation **of the** remainder of portion 1 of the farm Rietfontein 375-JR Pretoria east

Brown, L.R. & Bredenkamp, G.J. 2004. An environmental report on the vegetation of various portions of the farm Alewynspoort no. 145-I.R. Enviroguard Ecological Services cc

Brown, L.R. & Bredenkamp, G.J. 2006. An environmental report on the vegetation of portion 111 of the farm Roodekop 139-IR: Roodekop Extension 25. Enviroguard Ecological Services cc

Brown, L.R. 2007. Recommendations on the development possibilities of Erf 3122, Hartenbos Heuwels, Western Cape. Enviroguard Ecological Services cc.

Brown, L.R. 2008. Comments on the Botany report: "Impact assessment phase for the proposed pebble bed modular reactor demonstration power plant at Koeberg" Enviroguard Ecological Services cc.

Brown LR & Filmalter N. 2009. Vegetation report Portion 31, Rietfontein 375_JR Enviroguard Ecological Services cc.

Brown LR & Filmalter. 2009. Vegetation report of the Witbank sewage site and proposed pipeline. Enviroguard Ecological Services cc

Brown LR. 2010. A vegetation assessment of Kleinfontein RE 14 & 13, Boksburg, Gauteng

Brown LR. 2010. Eskom Proposed Riversong Substation: Construction of the new Riversong 88 kV Substation, Gauteng: Specialist report on the vegetation of the affected areas. Enviroguard Ecological Services cc

Brown LR & Cook C. 2010. An ecological overview of the vegetation, faunal & wetland ecosystems of the Klipspruit catchment area of Topigs Farm. Enviroguard Ecological Services cc

Le Roux A & Brown LR. 2011. A search for viable populations of rare and endangered plant species in natural areas on Romansrivier. Western Cape. Enviroguard Ecological Services cc

Brown LR & Cook C. 2011. Baseline ecological survey for Portion 647 Doornpoort 391 JR;Irene, Gauteng Province. Enviroguard Ecological Services cc

Brown, L.R. 2011. Eskom Proposed Eskom Marble Hall NDP Project : 132 kV Powerline from Wolvekraal Substation to and including the new Moutse Substation Limpopo: Specialist report on the vegetation of the affected areas. Enviroguard Ecological Services cc

Brown, L.R. 2012. An Ecological Report on the vegetation of the proposed MRF facility and the proposed Biogas facility, University of Pretoria Hillcrest campus. Enviroguard Ecological Services cc

Brown LR & Cook CL. 2013. An Ecological Report on the Fauna and Flora of Portion 15 of the farm Diepsloot 388 JR. Enviroguard Ecological Services cc.

Brown LR. 2013. Brits X161 specialist report on the vegetation. Enviroguard Ecological Services cc. 7pp.

Brown LR. 2013. Vegetation ecological investigation of site and route alternatives:Lethabong Substation and Powerline: Construction of a new Lethabong Substation and an approximately 20km power line between the Lethabong Substation and the Dam Switching Station. Enviroguard Ecological Services cc.

Brown LR & Cook CL. 2014. A vegetation and faunal scoping report of site and route alternatives: Eskom Kimberley Strengthening Phase 4 Project : Beta-Boundary

Brown LR, Cook C, O' Donoghue T & Muller M. 2014. Rietspruit Waterval: Verification of red data floral and faunal species. Unpublished report. Enviroguard Ecological Services cc.

Brown LR, Cook C, Muller M & O' Donoghue T. 2014. An ecological report on the flora and Fauna of Eagles Nest Extension 12. Unpublished report. Enviroguard Ecological Services cc.

Brown LR, Cook C, & O' Donoghue T. 2016. An ecological assessment of the Calamasil lime producing plant, Middelburg, Mpumalanga. Enviroguard Ecological Services cc.

Brown LR, Cook C, & O' Donoghue T. 2016. An ecological report on the fauna and flora: Ennerdale X6, Gauteng Province. Enviroguard Ecological Services cc.

Brown LR, Cook C, & O' Donoghue T. 2016. An ecological report and wetland assesement: Proposed K60 Road, Sunninghill, Johannesburg. Enviroguard Ecological Services cc.

Brown, LR; Cook, CL & Rautenvach, N. 2017. An ecological report on the fauna and flora: Holding 18 and the remainder of Holding 19 of the Olympus Agricultural Holdings, Tshwane Metropolitan Municipality, Gauteng

Brown LR & Cook CL. 2018. An ecological report on the Flora and Fauna: Portion 1 of Holding 44Melodie Agricultural Holdings and Hartebeestpoort Cableway 971-JQ, Northwest Province. Enviroguard Ecological Services cc.

Brown, LR. 2018. An ecological report on the flora: Dersley North, Springs, Gaunteng. Enviroguard Ecological Services cc.

Brown, LR. 2019. An ecological report on the flora: Brentwood Park X70, Plot 6, Brentwood Park AH, Ekurhuleni. Enviroguard Ecological Services cc.

Brown LR & Cook CL. 2020. An ecological report on the Flora and Fauna: Frankenwald, Gauteng. Enviroguard Ecological Services cc.

Wetlands & Riparian zones

Bredenkamp, G.J. & Brown, L.R. 2000. Lesotho Highlands Water Scheme: Riparian vegetation evaluation report for the proposed new dams at Clarens and Suikerbosrand and the proposed new pipeline. - Ekotruster cc.

Bredenkamp, G.J. & Brown, L.R. 2001. Wetland status of Needwood Ext 4: greater Johannesburg. Enviroguard Ecological Services cc. 7p.

Brown, L.R. & Bredenkamp, G.J. 2002. An environmental report on the vegetation and wetland delimitation of the Soshanguve Buffer Zone. Enviroguard Ecological Services cc. 13p.

Brown, L.R. & Bredenkamp, G.J. 2004. An environmental report and riparian delimitation on the vegetation of the site for development at Parys Golf Course and Festival grounds, Parys. Enviroguard Ecological Services cc

Brown, L.R. & Bredenkamp, G.J. 2005. Delineation of the moist grassland/wetland area of portion 32 of the farm Zwartkoppies 364 Jr, Pretoria. Enviroguard Ecological Services cc

Brown, L.R. Bredenkamp, G.J. & Gerber J. 2006. Wetland delineation and environmental report on the vegetation of portion 108 of the farm 194 Witkoppen; A.H. 39 Craigavon agricultural holdings; A.H 40 Craigavon & A.H 41 Craigavon.

Brown, L.R. & Bredenkamp, G.J. 2006. Wetland management plan: portion 108 of the farm 194 Witkoppen Graigavon AH. Enviroguard Ecological Services cc

Brown, L.R. & Bredenkamp, G.J. 2007. An environmental scoping report on a buffer zone for the wetland areas of Chloorkop Extension 62. Enviroguard Ecological Services cc

Brown, L.R. & Bezuidenhout, H. 2008. A wetland delineation of Holdings 16, 19, 21 & 9 Brentwood Park Agricultural Holdings. Enviroguard Ecological Services cc

Brown, L.R. Bredenkamp, G.J. & N Filmlalter. 2008. A wetland delineation and environmental report on the vegetation of a Portion of a Portion 136 of the farm Luipaardsvlei 246 IQ, Mogale City, Gauteng. Enviroguard Ecological Services cc

Brown, L.R. 2009. Wetland delineation 2009: Mnandi AH 230, 232 & 233 Enviroguard Ecological Services cc

Brown, L.R. 2009. Wetland delineation of the eastern section of Portion 117 of the Farm Rietfontein 2_IR, Paulshof Ext 69 Enviroguard Ecological Services cc

Brown LR & Bezuidenhout H. 2010. Wetland delineation of the proposed Witbank sewage line

Brown LR & Bredenkamp GJ. 2010. Wetland rehabilitation plan: portion 93 of the farm Olifantsfontein 410-JR, Clayville Ext 52. Enviroguard Ecological Services cc

Brown LR & Cook CL. 2012. An ecological assessment of the remaining extent of portion 16 Panorama 200 IQ, Roodepoort. Enviroguard Ecological Services cc.

Brown LR. 2013. Investigation of site and route alternatives: Freshwater assessment for the proposed Eskom Phantom 132 kV Substation sites, Knysna. Enviroguard Ecological Services cc.

Brown LR & Cook CL. 2013. Delineation of Longpoint wetland, Four Ways, Johannesburg. Enviroguard Ecological Services cc.

Brown LR & Cook CL. 2014. Wetland delineation: Portion 531 of the farm Elandsfontein 108 IR and the Remainder of Portion 2 of the farm Elandsfontein 90 IR. Enviroguard Ecological Services cc.

Brown LR, Cook C, O' Donoghue T & Muller M. 2014. Wetland delineation: Hazeldean, Pretoria East (Hazeldean Boulevard). Unpublished report. Enviroguard Ecological Services cc.

Brown LR, Cook C, O' Donoghue T & Muller M. 2015. An ecological report and wetland delineation: Proposed Bulk Water Pipeline, Diepsloot Reservoir to Dainfern Reservoir. Enviroguard Ecological Services cc.

Brown LR & O' Donoghue T. 2015 A wetland delineation & assessment: Rietfontein 135/128-IR, Selcourt, Springs. Enviroguard Ecological Services cc.

Brown LR, Cook C, O' Donoghue T & Muller M. 2016. An ecological report on the fauna & flora and assessment of drainage lines: Dr Enos Mabuza Drive, Nelspruit, Mpumalanga. Enviroguard Ecological Services cc.

Brown LR, Cook C, & O' Donoghue T. 2016. An ecological report on the fauna, flora and wetlands for: The proposed Kliprivier Estate (farm Driefontein 146 IR). Enviroguard Ecological Services cc.

Brown LR & O' Donoghue T. 2017 A Wetland assessment: Holding 60, Boepensspruit, Pretoria. Enviroguard Ecological Services cc.

Brown, LR. 2018. A plant ecological & watercourse assessment: Holding 50 Diswilmar AH, Gauteng. Enviroguard Ecological Services cc.

Brown, LR. 2018. Riverine / Wetland assessment: A section of the Existing KDS Holsdam 132kV line from Barkly West to Kimberley. Enviroguard Ecological Services cc.

Brown LR & O' Donoghue T. 2019 Riverine/Wetland assessment: Hydepark Erf 19, Johannesburg. Enviroguard Ecological Services cc.

Brown, LR. 2020. Specialist Statement: Poortjie Extension 1 situated on Part of the Remaining Extent of the Farm Poortjie 338 I.Q and a Portion of Portion 143 of the Farm Rietfontein 336 I.Q. Enviroguard Ecological Services cc.