

Shortened Curriculum Vitae

Name: Nico Loubser Avenant
Name of Company / Organisation: National Museum, Bloemfontein
Profession: Principal Museum Scientist / Curator
Position in Company: Head of the Department of Mammalogy
Date of Birth: 30 July 1964
Nationality: South African
Field of expertise: Mammal ecology

Education:

B.Sc. (Zoology), University of Stellenbosch, 1988
B.Sc. Honours (Zoology), University of Stellenbosch, 1989
M.Sc. (Zoology), University of Stellenbosch, 1993
Ph.D. (Zoology), University of the Orange Free State, 1999

Membership in Professional Societies / Serve on Committees:

South African Institute of Ecologists and Environmental Scientists
Zoological Society of Southern Africa
Free State Biodiversity Planning Steering Committee
Research Associate: Centre for Environmental Management, University of the Free State
On the Advising Board: African Large Predator Research Unit, University of the Free State
Serves on the International Conference for Rodent Biology and Management Committee
Serve on the Editorial Advisory Board, *The Open Conservation Biology Journal*
Serve on the Editorial Advisory Board, *Integrative Zoology*

Key Qualifications:

Nico qualified as Doctor of Philosophy in Zoology at the University of the Free State (1999). For this work he has spent 14 months on Marion Island as Leader of the Biological Team. He has started work as a scientist at the National Museum, Bloemfontein, in January 1995, where he is currently Head of the Mammalogy Department, Chair of the Science Forum, and a NRF-rated scientist. Nico is actively involved with the formulation of new policies for the National Museum, often representing the Museum at meetings and workshops (e.g. NBSAP, MDTP, SoER, Species Listing, FS Game Indaba, Environment Summit), and refereeing projects and new policies for the national Department of Environmental Affairs and Tourism (DEAT) and the Free State Department of Tourism, Environment & Economical Affairs (DTEEA). He is also involved with national and international collaboration projects, and lecturing and supervising pre- and post-graduate students. His research has been conducted over a wide area in Southern Africa (including the Karoo, West Coast Strandveld, Namib Desert & Skeleton Coast, Western Cape Mountains, Breede River valley, Free State Province, Qwa Qwa, Maguga Valley in Swaziland, and the Lesotho Highlands), at the Prince Edward Islands, and in Cambodia. Apart from publications in accredited journals, he has presented this research at 16 national and international conferences.

Nico is also the Curator of the Mammal Research Collection at the National Museum, Bloemfontein, where he is responsible for the collection's systematic growth, relevance and accessibility for researchers internationally. The c. 13 000 specimens of this collection comes from all over Southern Africa. It contains the largest collection of mammals from the Free State, Lesotho and the North-eastern Cape.

Scientific publications:

- AVENANT, N.L. & NEL, J.A.J. 1992. Comparison of the diet of the yellow mongoose in a coastal and a Karoo area. *S.Afr.J.Wildl.Res.* 22:89-93.
- CHOWN, S.L. & AVENANT, N.L. 1992. Status of *Plutella xylostella* at Marion Island six years after its colonisation. *S.Afr.J.Antarct.Res.* 22:37-40.
- LIGHTHART, M.F., NEL, J.A.J. & AVENANT, N.L. 1994. Diet of Cape clawless otters in part of the Breede River system. *S.Afr.J.Wildl.Res.* 24:38-39.
- COOPER, J., AVENANT, N.L. & LAFITE, P.W. 1994. Airdrops and king penguins: a potential conservation problem at sub-Antarctic Marion Island. *Polar Record* 30:277-282.
- COOPER, J., AVENANT, N.L. & VAN WYK, J.C.P. 1994. New records of the shortsnout lancetfish *Alepisaurus brevirostris* from subantarctic Marion Island. *S.Afr.J.Antarct.Res.* 24:126-127.
- AVENANT, N.L. 1996. Identification and distribution of two *Mastomys* spp. in Lesotho and part of South Africa. *Navors.nas.Mus.,Bloemfontein* 12:49-58.
- AVENANT, N.L. 1997. Mammals recorded in the Qwa Qwa National Park (1994-1995). *Koedoe* 40:31-40.
- AVENANT, N.L. & NEL, J.A.J. 1997. Prey use by four syntopic carnivores in a strandveld ecosystem. *S.Afr.J.Wildl.Res.* 27:86-93.
- AVENANT, N.L. & NEL, J.A.J. 1998. Home range use, activity and density of caracal in relation to prey density. *Afr.J.Ecol.* 36:347-359.
- AVENANT, N.L. 2000a. Small mammal community characteristics as indicators of ecological disturbance in the Willem Pretorius Nature Reserve, Free State, South Africa. *S. Afr. J. Wildl. Res.* 30:26-33.
- AVENANT, N.L. 2000b. Terrestrial small-mammal diversity in Korannaberg Conservancy, Free State, South Africa. *Navors.nas.Mus.,Bloemfontein.* 16:69-82.
- AVENANT, N.L. & NEL, J.A.J. 2002. Among habitat variation in prey availability and use by caracal *Felis caracal*. *Mamm. Biol.* 67:18-33.
- AVENANT, N.L. & WATSON, J.P. 2002. Mammals recorded in the Sandveld Nature Reserve, Free State province, South Africa. *Navors.nas.Mus.,Bloemfontein* 18:1-12.
- AVENANT, N.L. & KUYLER, P. 2002. Small mammal diversity in the Maguga area, Swaziland. *S. Afr. J. Wildl. Res.* 32:101-108.
- SMITH, V.R., AVENANT, N.L. & CHOWN, S.L. 2002. Feeding ecology of Marion Island house mice. *Polar Biology* 25:703-715.
- AVENANT, N.L. 2003. The use of small-mammal community characteristics as an indicator of ecological disturbance in the Korannaberg Conservancy. In: *Rats, Mice & People: Rodent Biology and Management* (eds. Singleton, G.R., Hinds, L.A., Krebs, C.J. & Spratt, D.M.). ACIAR Monograph No. 96, 564p.
- AVENANT, N.L. & SMITH, V.R. 2003. The microenvironment of house mice on Marion Island (sub-Antarctic). *Polar Biology* 26:129-141.
- FERREIRA, S.M. & AVENANT, N.L. 2003. Influences of trap-spacing on descriptors of hypothetical small mammal communities in Free State grasslands. *Navors.nas.Mus.,Bloemfontein* 19:21-30.
- AVENANT, N.L. & SMITH, V.R. 2004. Seasonal changes in age class structure and reproductive status of house mice on Marion Island (sub-Antarctic). *Polar Biology* 27:99-111
- VAN DER MERWE, M. & AVENANT, N.L. 2004. The Greater cane rat, *Thryonomys swinderianus*, is a pest species that is expanding its range in southern Africa. *Navors.nas.Mus.,Bloemfontein* 20: III-X.
- AVENANT, N.L. 2005. Barn owl pellets: a useful tool for monitoring small mammal communities? *Belgian Journal of Zoology* 135:39-43.
- AVENANT, N.L. & CAVALLINI, P. 2006. Correlating rodent community structure with ecological integrity, Tussen-die-Riviere Nature Reserve, Free State Province, South Africa. Peer reviewed abstract published in book (\approx proceedings), International Conference on Rodent Biology and Management, Hanoi, Vietnam, September 2006.
- AVENANT, N.L. & DE WAAL, H.O. 2006. The potential importance of rodents in managing two problem carnivores, and subsequently in promoting ecosystem conservation and sustainable small stock farming

practises in southern Africa. Peer reviewed abstract published in book (\approx proceedings), International Conference on Rodent Biology and Management, Hanoi, Vietnam, September 2006.

KAISER, W. & AVENANT, N.L. 2006. The importance of including rodents in veld condition assessments: a case study. Peer reviewed abstract published in book (\approx proceedings), International Conference on Rodent Biology and Management, Hanoi, Vietnam, September 2006.

AVENANT, N.L. & VAN DER MERWE, M. 2006. Expansion of the greater cane rat, *Thryonomys swinderianus*, into the drier parts of Southern Africa. Peer reviewed abstract published in book (\approx proceedings), International Conference on Rodent Biology and Management, Hanoi, Vietnam, September 2006.

AVENANT, N.L., DE WAAL, H.O. & COMBRINCK, W. 2006. The Canis-Caracal Programme: a holistic approach. Proceedings to the national *Workshop on the holistic management of human-wildlife conflict in South Africa, 10 - 13 April 2006, Ganzekraal Conference Centre, Western Cape*. Endangered Wildlife Trust, South Africa.

AVENANT, N.L. & CAVALLINI, P. 2007. Correlating rodent community structure with ecological integrity, Tussen-die-Riviere Nature Reserve, Free State Province, South Africa. *Integrative Zoology* 2:212-219.

AVENANT, N.L. & DU PLESSIS, J.J. 2008. Sustainable small stock farming and ecosystem conservation in southern Africa: a role for small mammals. *Mammalia* 72:258-263.

AVENANT, N.L., WATSON, J.P. & SCHULZE, E. 2008. Correlating small mammal community characteristics and habitat integrity in the Caledon Nature Reserve, South Africa. *Mammalia* 72:186-191.

KAISER, W., AVENANT, N.L. & HADDAD, C.R. 2008. Assessing the ecological integrity of a grassland ecosystem: refining the SAGraSS method. *Afr.J.Ecol.* (Early online)

HERRMANN, E., KAMLER, J.F. & AVENANT, N.L. 2008. New records of servals *Leptailurus serval* in central South Africa. *S.Afr.J.Wildl.Res.* 38:185-188.

VAN DER MERWE, S.J., AVENANT, N.L. & LUES, J.F.R. In press. Pastoral farming and wildlife management influences on lion/livestock interaction in the Kgalagadi-south, Botswana: a synopsis. *Journal for New Generation Sciences*.

AVENANT, N.L. In press. Rhebok, *Pelea capreolus*. In: *The mammals of Africa*. Kingdon, J., Happold, D. & Butynski, T. (eds.).

AVENANT, N.L. In press. Mountain reedbeek, *Redunca fulvorufula*. In: *The mammals of Africa*. Kingdon, J., Happold, D. & Butynski, T. (eds.).

Key assignments as mammal specialist, environmental assessments:

Seventeen assessments, including the projects Conserving Mountain Biodiversity in Southern Lesotho (for National University of Lesotho), Conserving Mountain Biodiversity in Southern Lesotho (for UNDP), Baseline study for Mohale Dam, Lesotho (for Afridev), Monitoring program at Mohale Dam, Lesotho (for National University of Lesotho), Re-introduction of Mammals at Letseng la Letsie, Lesotho (for National University of Lesotho), EIA and Comprehensive Mitigation Plan for Maguga Dam, Swaziland (for Afridev), Maloti Drakensberg Transfrontier Project (for Maloti Drakensberg Ecology Consultants), SEA for the proposed Senqu Sources protected area (for Strategic Environmental Focus), and Management Plan for the Senqu Sources protected area (for Strategic Environmental Focus).

Involvement with students (since 2000):

Lecturing at the University of the Free State (UFS): Third year zoology students (2000 - 2004); Post-graduate students at the Centre for Environmental Management (2001 - 2009); Fourth year students at the Department of Animal, Wildlife and Grassland Sciences (2005 - 2009).

Presenting seminars at the "Museo Zoologico 'La Specola'", Firenze, and at the University Museum, Pisa: "Using animal communities, with highlight on small mammals, as indicators of habitat integrity in some African ecosystems" (October 2003).

Field guide and lecturing for post-graduate students of the University of Leiden, Netherlands, during their field work excursion in South Africa, 2003 and 2004: "The role of mammals in Veld Management" and "Small mammals as indicators of habitat integrity".

Supervisor: Three Masters students, Centre for Environmental Management, UFS; two M.Sc. students, Department of Animal, Wildlife and Grassland Sciences, UFS; one Masters student, University of Neuchatel, Switzerland.

Currently supervisor for: One M. Tech. student, Department of Environmental Health, Central University of Technology; one Masters student, Centre for Environmental Management, UFS; one Ph.D. student, Centre for Environmental Management, UFS; one M.Sc. student, Department of Environmental Geography, UFS; and one M.Sc. student, Department of Animal, Wildlife and Grassland Sciences, UFS.

External examining: Four Masters and one Ph.D. theses for the UFS (from the Department of Animal, Wildlife and Grassland Sciences, and the Centre for Environmental Management); one M.Sc. theses for the Walter Sisulu University (Department of Zoology); one M.Sc. theses for the Stellenbosch University (Department of Conservation Ecology); one M.Sc. theses for the University of the Witwatersrand (School of Animal, Plant and Environmental Sciences); evaluate a manual for the University of Johannesburg for the purpose of awarding a post-graduate degree to the applicant: "On problem animal control".

Reviewer for national and international journals, books and conferences (since 2000):

Reviewed twenty seven manuscripts for: *Navorsinge van die Nasionale Museum, Bloemfontein*; *Annals of the South African Museum*; *Durban Museum Novitates*; *South African Journal of Wildlife Research*; *Transactions of the Royal Society of South Africa*; *African Zoology*; *Integrative Zoology*; *Mammalia*; *Wildlife Research*; *Acta Theriologica*; *Journal of Mammalogy*; *Belgian Journal of Zoology*; *IUCN Cat News*; *Bollettino del Museo regionale di Scienze Naturali di Torino*; Proceedings of the 5th International Symposium of Tropical Biology, Bonn; *Australian Mammalogy*.

Reviewed 12 abstracts for national and international conferences, and has acted as reviewer for the book "Bats in Roofs" (published by the University of KwaZulu-Natal Press), for the national Department of Environmental Affairs and Tourism (the Species Listing website), and acted as scientific advisor for the Mammals of the Southern African Subregion (Skinner & Chimimba 2005).

Contributor to and compiler for the SA Red Data Book for Mammals (Friedmann & Daly 2004), and compiled (n=2) and reviewed (n=5) species accounts for The mammals of Africa (Kingdon *et al.* In press. Academic Press, Amsterdam).

Evaluated five project proposals for the South African National Antarctic Programme, Earthwatch Institute and the Russel Small Grant, and numerous proposals for the Centre for Environmental Management (UFS), African Large Predator Research Unit (UFS), the University of Abomey-Calavi, Benin, and the University of Neuchatel, Switzerland. Acted as advisor for two Recognition of Prior Learning applications, and has evaluated two applications for NRF rating and two applications for NRF funding.

Other contributions towards conservation and environmental management initiatives include the:

Free State Environmental Policy Initiative; Policy on the Management of the Environment; Re- and translocation of Game Animals; Introduction and /or re-introduction of game species in provincial and private nature reserves in the Free State Province; Management Plans for Free State nature reserves; Free State "State of the Environment Report"; Policy on the Environment (ESCOM); Management of caracal (West Coast Conservation Forum); Biodiversity Strategy & Action Plan (DEAT); Listing processes for appendix to the Biodiversity Act: Endangered Mammals, Alien & Exotic Mammals, and Invasive Species (South African National Biodiversity Institute / DEAT); Protocol for the measurement of sedated lions (African Lion Working Group); IUCN Wildlife Trade Program; and the Canis-Caracal Programme.

N.L. Avenant has also played a significant role in developing the National Museum Contract Research Policy, the National Museum Promotion of Access to Information Act Manual, the collaboration initiative between the National Museum and the University of the Free State, and in finalizing a number of Collections Data Usage Agreements. The more than 20 popular publications, 40 newspaper articles and popular talks, involvement with the "Big 5" computer game and numerous permanent and temporary exhibitions are further testimony of his commitment to research-based education on all levels.

A handwritten signature in black ink, consisting of a large, stylized letter 'D' followed by a smaller, more complex character that resembles a 'K' or 'X'.

26 January 2009