Curriculum Vitae (Condensed)

Louis Daniel van der Walt

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1. Background Information

1.1 Personal Details

Name:	Louis Daniël van der Walt (Danie).
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Marital status:	Married
Date of Birth:	1968-05-30
Nationality:	Republic of South Africa.

1.2 Secondary Education

Senior certificate examination, Linden Hoërskool, Johannesburg, 1985.

1.3 Tertiary Education

Completed the following degrees at the Rand Afrikaans University:

- **B.Sc. (Biol. Sciences)**, 1989: Majoring in Zoology and Botany.
- **B.Sc. Honoribus (Zoology)**, 1990: Subjects including Ichthyology & Aquaculture, Ecology, Physiology, Genetics, Entomology & Parasitology, Nematology, Evolution and Philosophy.
- **M.Sc. (Zoology) cum laude**, 1993. Title of script: An evaluation of the allozyme variation as well as the effect of cryopreservation of semen on the genetic selection of the African catfish (*Clarias gariepinus*).

Certified copies of these degrees and the abstract of the M.Sc. script are available on request.

1.4 Courses & Training

Successful completion of the following courses:

- Implementing integrated management systems (SHEQ): ISO9001, ISO14001 and OHSAS18001. Centre for Environmental Management, North-west University, Potchefstroom, October 30 November 4, 2005.
- Wetland Training: Delineation, Functions and Rehabilitation of Wetlands. University of Pretoria, Rietvlei Nature Reserve, May, 2006.
- Environmental Impact Assessment (NEMA Regulations). Centre for Environmental Management, Northwest University, Potchefstroom, May, 2007.
- OHS Act and Regulations (Act 85 of 1993). Department of Labour, Gauteng, September, 2010.
- Training: SASS5. NEPID Consultants, Sabie, Mpumalanga. March 2013.

Certified copies of completion certificates of these courses are available on request.

1.5 Short Courses and Practical Workshops

- Fish Index Validation: Field Testing. DWAF Guidelines. Waterval-Boven. August 2006
- Short Course: Soil Classification and Wetland Delineation. Terrasoil Science. Nelspruit. February 2009.

• DWAF: Directorate: Water Abstraction and Instream Use: Training course for section 21 (c) and (i) water use authorization. Pretoria, November 2010.

1.6 **Publications and contributions**

During my tertiary education as well as my professional career, I have published several scientific reports and attended and contributed to various workshops and congresses. These are listed in Appendix B.

2. Previous employment and experience

Rand Afrikaans University, JHB

January 1990 - December 1993: Laboratory and field assistant. 1992: Aquarium and Technical assistant to Department of Zoology. Duties included:

- Managing the zoology aquarium;
- Designing and construction of fish breeding and holding systems;
- Technical and field assistant to various research projects;
- Mentor to graduate students in methods to do aquatic ecological surveys and reports, including:
 - conduct ecological assessments and reporting;
 - $\circ\,$ collect and identify wild fish specimens and aquatic invertebrate specimens;
 - water sampling and testing;

Silver Creek Aquaculture, Hazyview

January 1994 - May 1997: Biologist and manager of aquaculture, specializing in African Sharptooth Catfish, Tilapia and the production of ornamental fish. Duties included:

- Designing and construction of fish breeding and holding systems;
- Development of production systems and methods;
- Genetic selection of brood stock;
- Artificial and controlled propagation of fish;
- Managing of abattoir and fish processing;
- Marketing of fish products.

Aquaculture Consultant and Biologist

May 1997 – present. In parallel with my present full time occupation, I also manage an aquaculture business, specializing in ornamental fish, e.g. Goldfish, Japanese Koi and tropical fish.

Duties include:

- Designing and construction of fish breeding and holding systems;
- Development of production systems and methods;
- Genetic selection of brood stock;
- Artificial and controlled propagation of fish;
- Diagnoses and treatment of fish diseases;
- Consultations and management plans regarding aquaculture.

3. Present scope of work

Since 2003, I have been self-employed or contracted to conduct ecological and biodiversity investigations for environmental and conservation management purposes (e.g. EIA, EMPR, EMP processes). I rely on my training and background as a biologist / scientist to ensure that these investigations are conducted according to standard scientific methods and procedures in order to be scientifically correct and can therefore be used as reference by co-scientists. These investigations are specific and include the following:

i) General Biodiversity Assessments

This is a comprehensive term and the assessments will cater for specific terms, e.g. basic assessments, scoping assessments and /or specialist reports. Depending on the terms, the reports will include the following:

- Comprehensive species lists (this includes all flora as well as fauna: including invertebrates, fish, frogs, reptiles, birds and mammals);
- Red Data potential and actual species found;
- Important communities and habitats;
- Important- and indicator species and their relevance;
- Ecological significance and sensitivity zoning of the relevant land;
- Invasive/Exotic species and weeds;
- Impact assessments and recommendations;

ii) Aquatic Assessments and Monitoring

These assessments are performed according to Department of Water Affairs (DWA) guidelines and include the following:

- Aquatic habitat assessments;
- Fish integrity surveys;
- Macro invertebrate assessments according to the South African Scoring System (SASS)and Invertebrate Habitat Assessment System (IHAS);
- Aquatic bio-monitoring.

iii) Wetlands and Riparian Areas

These assessments are done according to specific guidelines as required by DWA guidelines EIA purposes and for water use license applications:

- Wetland & Riparian delineation;
- Wetland functions and integrity;
- Present ecological state (PES);
- Ecological importance and sensitivity (EIS).

iv) Ichtyology & Aquaculture

As result of my education as zoologist, especially in the subject of ichthyology as well my historic involvement with aquaculture (20 years experience) I also consult on the following subjects:

- Aquaculture systems and information;
- Artificial propagation and genetic selection of fish;
- Aquaculture management plans;
- Disease identification and control.

4. Experience and attributes

Since 2003 I have completed projects and assessments in a diverse range of environments and natural habitats, including very sensitive areas that required intensive research and detailed assessments. Due to Mpumalanga's diverse natural resources and topographic features, this province has several very special areas of natural and biological importance. Areas such as these where I have been fortunate enough to do assessments include:

- The Eastern Escarpment, including centrums of floral endemism such as Steenkampsberg (Machadodorp Dullstroom); the Wolkberg, Barberton, Pilgrims Rest and Lydenburg and its surrounds as well as Sekhukhune Land;
- The general Lowveld region stretching from Hazyview Nelspruit Komatipoort;
- The general Highveld area stretching from Delmas in the west to Dullstroom and Belfast in the east;

My area of work also covers other provinces, including Gauteng-, Limpopo- and North West Province. I have a comprehensive data basis for all of the areas mentioned above and I also have an impressive library, including the most recent literature, as well as rare and out of print literature, to aid in research. Where necessary, the assessments include consultations and the co-operation of the relevant conservation authorities and co-scientists.

5. Referees

Prof. G.J. Steyn. University of Johannesburg. Tel. 083 633 4665 L. Human, ESKOM Distribution Northern Region, P.O. Box 36099, Menlo Park, 0102 Tel. 083 233 6727 M. Mbuyane, Wandima Environmental Consultants, PO Box 1072, Nelspruit, 1200 Tel. (013) 752 5452 R. Luyt, Mpumalanga Department of Agriculture and Land Administration, Directorate Environmental Impact Management, Nelspruit Tel. 082 672 7868 M. Lötter, Mpumalanga Tourism and Parks Agency: Scientific Services, Private Bag X1088, Lydenburg, 1020 Tel. (013) 235 2395 F. Krige, Mpumalanga Tourism and Parks Agency: Scientific Services, Private Bag X1088, Lydenburg, 1020 Tel. (013) 235 2395 T. Dormehl, Dormehl Technology, PO Box 21103, Nelspruit, 1200 Tel. (013) 741 1739 Dr. A. R. Deacon, National Parks Board, Skukuza, Kruger National Park Tel. (013) 735 4237 J. Fourie & Associates, Environmental Engineers, PO Box 431, Paardekraal, 1739 Tel. (011) 954 1537 Dr. P. Van Eeden, EnviroScience, PO Box 1343, Norkem Park, 1631, Tel. 083 279 4419 A. Van der Merwe, Maleka Environmental Consulting, PO Box 14850, West Acres, Tel. (013) 752 4231 Nelspruit, 1211 P.J. Viljoen, EkoServ, PO Box 7191, Nelspruit. 1200. Tel. (013) 744-0775 Tel. 083 279 4419