

## CURRICULUM VITAE (CV) OF ANTOINETTE BOOTSMA 2019

Position: DIRECTOR and SENIOR WETLAND SPECIALIST

Name of Firm: LIMOSELLA CONSULTING (PTY) LTD

Name: ANTOINETTE ALEXANDRA BOOTSMA

Profession: ECOLOGIST

Date of Birth: 1976/04/25

Years with Firm/Entity: Since August 2009 (9 YEARS)

Nationality: SOUTH AFRICAN

### Key Qualifications:

**M.SC** (Environmental Science), University of South Africa, 2017. Awarded with distinction. Project Title: Natural mechanisms of erosion prevention and stabilization in a Marakele peatland; implications for conservation management

**B.Sc. Hons** (2003-2005) Botany University of Pretoria, (Project Title: A phytosociological Assessment of the Wetland Pans of Lake Chrissie)

**B.Sc.** (1997 - 2001) Botany and Zoology, University of South Africa.

### Experience in field: 13 Years

COURSES COMPLETED: Short course in wetland delineation, legislation and rehabilitation, University of Pretoria (2007)

Short course in wetland soils, Terrasoil Science (2009)

COURSES PRESENTED: Participated in presentation of the practical component of the VEGRAI training course to DWS (2017)  
Wetlands Short Course: Back to Basics presented to the Limpopo Wetland Forum in the context of implementers of Working for Wetlands (2017)  
Wetland Vegetation presented to the Gauteng Wetland Forum during the Back to Basics wetland course (2012 and 2014)

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## **Affiliations:**

*Professional Natural Scientist (SACNASP) # 400222-09 Botany and Ecology  
South African Wetland Society # NA6RY2FP  
Grassland Society of South Africa*

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## **Employment Record:**

### **WORK EXPERIENCE**

NAME OF ORGANISATION : **Limosella Consulting (Pty) Ltd.,  
Pretoria**

PERIOD : August 2009 – present

POSITION : Principal Specialist and Director

- Management of projects in terms of specialist input, including quotations, planning, technical review, submission of reports and invoicing;
- Fine scale wetland delineations and functional assessments;
- Strategic wetland assessments and open space management and planning;
- General Rehabilitation, Monitoring and Mitigation assessments.
- Implementation of wetland assessment tools including the DWS (2016) Risk Assessment, Present Ecological Status (PES) Macfarlane et al, (2007), Ecological Importance and Sensitivity (EIS) (DWAF, 1999), Recommended Ecological Category (REC) Rountree et al (2013), Riparian Vegetation Response Assessment Index (VEGRAI) (Kleynhans et al, 2007) and QHI (Quick Habitat Integrity)
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NAME OF ORGANISATION : **Strategic Environmental  
Focus, Pretoria**

PERIOD : April 2007 – August 2009

POSITION : Senior Wetland Specialist

RESPONSIBILITIES :

- Fine scale wetland delineations and functional assessments;
- Strategic watercourse assessments;
- Wetland rehabilitation and monitoring plans;
- Wetland ECO work;
- Ensuring the scientific integrity of wetland reports including peer review and publications.

NAME OF ORGANISATION : **Conservation Ecology  
Research Unit,  
University of Pretoria,  
Richards Bay Field Station,**

PERIOD : January 2005 – March 2007

POSITION : Research Assistant

RESPONSIBILITIES :

- Field work and data collection for technical reports on the success of rehabilitation of coastal dune forest after mining.
- Compilation of technical reports
- Presentation of findings to the client and relevant forums

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**Publications:**

- A.A. Boostma, S. Elshehawi, A.P. Grootjans, P.L Grundling, S. Khosa, M. Butler, L. Brown, P. Schot. In Press. Anthropogenic disturbances of natural ecohydrological processes in the Matlabas mountain mire, South Africa. South African Journal of Science
- P.L. Grundling, A Lindstrom., M.L. Pretorius, A. Bootsma, N. Job, L. Delpont, S. Elshahawi, A.P Grootjans, A. Grundling, S. Mitchell. 2015. Investigation of Peatland Characteristics and Processes as well as Understanding of their Contribution to the South African Wetland Ecological Infrastructure Water Research Commission KSA 2: K5/2346
- A.P. Grootjans, A.J.M Jansen , A, Snijdewind, P.C. de Hullu, H. Joosten, A. Bootsma and P.L. Grundling. (2014). In search of spring mires in Namibia: the Waterberg area revisited. Mires and Peat. Volume 15, Article 10, 1-11, <http://www.mires-and-peat.net/>, ISSN 1819-754X © 2015 International Mire Conservation Group and International Peat Society
- Haagner, A.S.H., van Wyk, A.A. & Wassenaar, T.D. 2006. The biodiversity of herpetofauna of the Richards Bay Minerals leases. CERU Technical Report 32. University of Pretoria.
- van Wyk, A.A., Wassenaar, T.D. 2006. The biodiversity of epiphytic plants of the Richards Bay Minerals leases. CERU Technical Report 33. University of Pretoria.
- Wassenaar, T.D., van Wyk, A.A., Haagner, A.S.H, & van Aarde, R.J.H. 2006. Report on an Ecological Baseline Survey of Zulti South Lease for Richards Bay Minerals. CERU Technical Report 29. University of Pretoria

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**Relevant Key Projects** (This is not a complete list of projects completed, rather an extract to illustrate diversity):

<b>Responsibilities per Project</b>	<b>Time spent per project</b>
<p><b>Peer review of wetland specialist studies</b></p> <ul style="list-style-type: none"> <li>• More than 90 external peer reviews as part of mentorship programs for companies including Galago Environmental Consultants, Lidwala Consulting Engineers, Bokamoso Environmental Consultants, Gibb, 2009 ongoing</li> <li>• More than 400 wetland assessment reports submitted by Limosella Consulting between 2011 and 2019</li> <li>• Peer review of specialist reports including fauna, flora and wetland assessments for SEF, between 2007 and 2009</li> </ul>	<p><b>Average time spent per project:</b>  <b>6 hours</b></p>
<p><b>Wetland Specialist Assessments:</b></p> <ul style="list-style-type: none"> <li>• More than 400 fine scale wetland and ecological assessments in Gauteng, Mpumalanga, KwaZulu Natal, Limpopo and the Western Cape 2007, ongoing</li> <li>• Fine scale wetland delineation and functional assessments in Lesotho and Kenya. 2008 and 2009;</li> <li>• Analysis of wetland/riparian conditions potentially affected by 14 powerline rebuilds in Midrand, Gauteng, as well submission of a General Rehabilitation and Monitoring Plan. May 2013.</li> <li>• Input into the wetland component of the Green Star SA rating system. April 2009;</li> <li>• As assessment of wetlands in southern Mozambique. This involved a detailed analysis of the vegetation composition and sensitivity associated with wetlands and swamp forest in order to inform the development layout of a proposed resort. May 2008.</li> <li>• An assessment of three wetlands in the Highlands of Lesotho. This involved a detailed assessment of the value of the study sites in terms of functionality and rehabilitation opportunities. Integration of the specialist reports socio economic, aquatic, terrestrial and wetland ecology studies into a final synthesis. May 2007.</li> </ul>	<p><b>Average time spent per project:</b>  <ul style="list-style-type: none"> <li>• 3 Weeks</li> </ul></p>
<p><b>Strategic Wetland Assessments:</b></p> <ul style="list-style-type: none"> <li>• Wetland specialist input into the North West Environmental Outlook, 2018</li> <li>• Wetland specialist input into the Gauteng Environmental Outlook, 2017</li> <li>• Wetland specialist input into the Open Space Management Framework for Kyalami and Ruimsig, City of Johannesburg, 2016</li> <li>• Wetland specialist input into the Open Space Management Framework for Linbro Park and Greater Bassonia, City of Johannesburg, 2015</li> <li>• Scoping level assessment to inform a proposed railway line between Swaziland and Richards Bay. April 2013.</li> <li>• An audit of the wetlands in the City of Johannesburg. Specialist studies as well as project management and</li> </ul>	<p><b>Average time spent per project:</b>  <ul style="list-style-type: none"> <li>• 2 Months</li> </ul></p>

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integration of independent datasets into a final report.  
Commenced in August 2007

- A strategic assessment of wetlands in Gauteng to inform the GDACE Regional Environmental Management Framework. June 2008.
  - Ecological studies on a strategic scale to inform an Environmental Management Framework for the Emakazeni Municipality and an Integrated Environmental Management Program for the Emalahleni Municipality. May and June 2007
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**Research Projects not related to postgraduate studies:**

- Species assemblages in the woody vegetation communities of coastal dune forests between the Umfolozi and Umlalazi rivers. This relates to colonisation trends across disturbance and rehabilitation age gradients, including aspects such as seed ecology and phenology. 2006/7
- Biodiversity of the coastal dune forests and associated habitats in Richards Bay, particularly on the epiphytic orchids and ferns found on the mineral lease area of Richards Bay Minerals. 2006
- Baseline vegetation and topsoil maps for Richards Bay Minerals' Zulti South lease area. 2005/6