

Following on from the highly successful Research Skills Workshops held in 2008, 2010, 2012 and 2013, the Grassland Society of Southern Africa is proud to host the



RESEARCH SKILLS WORKSHOP 2014

20 to 21 July 2014

Phillip Sanders Conference Centre
Verkeedevei Road, Bloemfontein
Free State Province, South Africa

During the two-day event, leading scientists, lecturers, researchers, and academics will give presentations on key aspects of research. A wide range of topics will be covered, from the philosophy of research, through key research skills, such as writing papers, dealing with data, and community-involvement, to tips on how to make successful platform and poster presentations.

Who should attend?

The workshop will be of value to anyone involved directly or indirectly in biological, ecological, and agricultural research, including scientists, researchers, managers, technicians, teachers, mentors, and students.

Registration and contact details

To register, complete the registration form available on the website, www.grassland.org.za, or contact Freyni du Toit on admin@grassland.org.za, 049 842 4335 or 083 256 7202.

Visit the webpages of the previous Research Skills Workshops to find out more: [Research Skills Workshop 2013](#), [Research Skills Workshop 2012](#), [Research Skills Workshop 2010](#), [Research Skills Workshop 2008](#)

REGISTRATION COSTS (including VAT)	FULL-TIME STUDENTS	OTHER DELEGATES
Research Skills Workshop (includes accommodation and all meals from Sunday lunch until Monday afternoon tea, plus workshop materials)	R 2 200.00	R 2 860.00
Research Skills Workshop Day Delegate (Sunday lunch and afternoon tea, Monday lunch and two teas, plus workshop materials, NO accommodation)	R 1 500.00	R 2 160.00

Programme DAY 1: Sunday 20 July 2014

12:00 Registration opens

13:00 LUNCH

14:00 Welcome and Introduction, Justin du Toit

14:15 Science, technology, and wisdom, Pieter Duvenage, University of the Free State

In this contribution I will start with with Aristotle's influential discussion of the intellectual virtues in the sixth book of the Nicomachean Ethics. I will then move to Heidegger and Gadamer's 20th century appropriation of Aristotle in their respective discussions of the role of science, technology, and wisdom in contemporary society.

15:00 Effective research collaboration with a consulting statistician, Robert Schall, University of the Free State

This presentation will provide guidelines and advice for an effective research collaboration with a consulting statistician. The ideal consulting statistician is not primarily a "number cruncher", but an expert in research methodology. As such, the statistician can make a significant contribution at various stages of the research project, including design and planning, data collection, data analysis, interpretation of findings and their publication. Like good wine, consulting statisticians improve with age (up to a point).

15:30 TEA

16:00 The correct use of statistics in research, Jacques Raubenheimer, University of the Free State

How you present your statistical data is very important if you want the reader to interpret it correctly. Sometimes graphs work better than tables, while writing it out in words can in some cases trump the graphical presentation of the results. Students often make use of creative ways to hide data that has not been gathered correctly or to place the emphasis on the results that they expected to obtain, even though it may not be the correct interpretation of the results. This presentation will focus on the correct ways of presenting your statistical data, while simultaneously taking the fear factor out of the metaphorical statistical equation.

17:00 Plant collection for identification and research, Lize Joubert, University of the Free State

Herbarium specimens are valuable resources which can be used for a multitude of purposes such as plant identification, mapping of plant distribution ranges, study of plant morphology, anatomy, plant pathology and traditional uses. This workshop deals with the basic techniques in collecting, drying and preserving high quality plant specimens which can be used for identification purposes. Well prepared specimens can also be included in permanent herbarium collections and serve as an important source of data for several generations of researchers.

17:30 Photography for academia, Jano Myburgh, Central University of Technology

Photography is a medium that can be used to visually communicate and more effectively convey research as well as serve as a visual record of data and findings. In order to fulfil either or both of these objectives the camera operator is required to understand and be able to employ certain basic skills to improve the aesthetic quality of images and fulfil technical requirements for images to serve as data. This presentation will introduce researchers to these basic skills and allow them to engage their target audience with more pleasing visual images and more clearly illustrate their finding as well as introduce them to a proper image cataloguing system to better store and access their visual data.

18:00 END OF DAY ONE

Programme DAY 2: Monday 21 July 2014

08:00 Welcome and introduction

08:10 Your role in attracting and retaining the next generation of RD&E professionals, John Taylor, Australian Rangeland Society

Declining university enrolments in 'agriculture' have led to concerns in Australia that the supply of agricultural professionals (i.e. scientists, advisors/extension officers, farm managers and consultants) will not meet the demand. Reasons for the decline include the image of primary industries, perceptions of career opportunities and a poor understanding of the sources of food and fibre in an increasingly disconnected, urban society. A recent review of the scientist education pipeline for the livestock industries in Australia has identified three key phases when career motivations can be aroused, nurtured and developed: at primary school, secondary school and at university. Student feedback reveals that in each of these phases there are a range of actions you could take to inspire and motivate the next generation of research, development and extension (RD&E) professionals.

08:55 People, the environment, and community research, Terry Everson, University of KwaZulu-Natal

People are an integral component of almost all natural systems on earth, yet are often viewed as being 'unnatural'. Research in natural systems often ignores the human aspect; alternatively, the human component of a system is accommodated as a function and within the context of a particular society.

09:25 Writing a project proposal – the academic aspect, Adrian Shrader, University of KwaZulu-Natal

Within academic environments, project proposals rest most fundamentally on their scientific credibility. However, project proposals, especially at undergraduate or beginner-scientist level, often suffer from irrelevant information, a lack of logical progression, and unclear objectives.

09:55 Finding funding for research, Wayne Truter, University of Pretoria

Research efforts and opportunities are often limited by the availability of funds. However, considerable monetary resources are available if searched for correctly. Additionally, funds are often renewable if appropriate performance is maintained by the researcher

10:25 Networking, management and collaboration in research institutions, Luthando Dziba, CSIR – Natural Resources and Environment

Scientists usually have specialised fields of interest and expertise. Collaboration is, therefore, a useful way to expand the scope of research projects. Despite this, collaboration is an often underused opportunity.

11:00 TEA

11:30 Managing photographs for optimum use, Clement Cupido, Agricultural Research Council

Photographs are normally saved in folders with one unique name or number. An image might contain a lot of information, eg. a picture of a cow grazing in the grassland biome. Adding tags (e.g. cow, grazing and grassland) to a picture makes it much easier to search images in your photo library. Tags, which are essentially keywords or phrases that make it easy to search for images within a certain category. Tips on renaming pictures in bulk and how to reduce image size for email purposes, websites, presentations and reports will also be shared.

12:00 Chaos to order - managing research data effectively, Justin du Toit, DAFF – Grootfontein ADI

Experiment or monitoring data are often captured and stored in ways that reduce their potential, make them inaccessible, and allow them to be lost. Some simple principles and tools allow the information in even huge datasets to become easily available and pliable.

12:30 South African National Standard 10386: The care and use of animals for scientific purposes, Jan Roodt, University of the Free State

An introduction will be given about the ethical aspects (the way animals are treated) involved when domesticated animals and wildlife form part of a research project. Emphasis will be placed on the procedures to follow with regards to permission from the ethical committee to do research of any sort on such animals.

13:00 LUNCH

Programme DAY 2: Monday 21 July 2014 (continued)

14:00 Presenting effectively with PowerPoint, Terry Olckers, University of KwaZulu-Natal

Platform presentations are nowadays usually dependent on PowerPoint. Despite this technology, many presentations fail to effectively convey the statement the presenter is trying to make.

14:30 11 seconds – presenting posters effectively, Adrian Shrader, University of KwaZulu-Natal

Poster presentations are a valuable, and often the only available, way of presenting work at a congress. This results in many congresses having numerous posters, too many for an individual to read. Therefore, a poster must compete with other posters if it is to be read by the delegates.

15:00 Reviewing, Tony Palmer, Agricultural Research Council

The anonymous peer-review system is central to scientific research. Carefully executed reviews can substantially improve the quality of a paper, and in turn the abilities of the author. The review process can also be frightening to inexperienced authors, and the comments of reviewers need to be taken in the correct light. Reviewers who are overly interested in structure rather than content can be of disservice to authors.

15:30 TEA

16:00 The public can't speak Science because scientists don't speak English, Amelia Genis, Landbou Weekblad

Scientists often do not realise what wealth of life-changing information they hold, because sharing their research with the ordinary public seldom forms part of their training thinking. However, in a time when sensation and gossip about celebrities sometimes dominate the news, South African society needs scientists who can explain the significance and relevance of their research to the public, or at least to journalists and editors. There are a couple of tricks to the trade, some of which will be shared during this talk.

16:30 Getting it out there – overcoming the publishing obstacle, James Bennett, Coventry University,

Peer-reviewed articles ('papers') are the accepted means of recording and communicating ideas and findings in science. However, the prospect of writing up research for publication, especially for beginner scientists, can be quite daunting, and scathing reviews of submissions can be discouraging. This session provides a step by step guide to the key considerations in producing a scientific paper both from an author and reviewer/journal editor perspective.

17:00 END OF DAY TWO

Speaker Profiles

Adrian Shrader

Dr Adrian Shrader is a lecturer of Wildlife Conservation and Management at the University of KwaZulu-Natal whose main research interest is the foraging ecology of large mammals. He has taught at the Nelson Mandela Metropolitan University and at the University of Pretoria, and has also been affiliated with the University of Illinois, Duke University, and Ben Gurion University. He has a particular interest in presenting complex scientific findings – be they in the written, poster, or oral forms – in a clear and understandable way.

Amelia Genis

Amelia Genis is a journalist at Landbouweekblad with a special interest in sustainable agriculture and how organisms and processes work in nature, especially in the arid regions of South Africa. She studied Agricultural Economics and Agronomy at Stellenbosch University before joining the department of agriculture as an agricultural economist. She went back to University to do an honours degree in Journalism and began to practice the craft. While working on community newspapers, she completed a Masters degree in Science Journalism on journalists' need for numerical literacy and was quite rattled by the many examples of illiteracy she found in newspapers. She also holds an MPhil in Land and Agrarian Studies and has investigated change in the commercial farming sector for the PhD thesis she hopes to complete before Christmas.

Clement Cupido

Clement Cupido is a rangeland ecologist for the Agricultural Research Council. He works primarily in the Succulent Karoo biome in the Namaqualand Uplands and has a keen interest in the ecosystem services herding has to offer. He is based at the University of the Western Cape's Biodiversity and Conservation Biology Department where he supervises and co-supervises several post grad students who are working within the arid zone along the west coast region. He has a keen interest in outdoor and studio photography.

Speaker Profiles (continued)

Jacques Raubenheimer

Jacques Raubenheimer has completed two masters degrees (Research Psychology, Practical Theology) and one PhD (Research Psychology). He is currently a lecturer in Biostatistics at the University of the Free State and a research consultant and computer trainer. He is a Microsoft Certified Trainer and a Microsoft Office 2010 Specialist Master Instructor. He has extensive experience in training students hands-on to write their theses and dissertations using Microsoft Word in a customised training course which he developed. This work has resulted two books: *Doing Your Dissertation with Microsoft® Word: A comprehensive guide to using Microsoft® Word for academic writing (Updated for Word 2007 & 2010)* (ISBN: 9780868868141) and *Mendeley: Crowd-sourced reference and citation management in the information era* (ISBN: 9780620594424). He now maintains the website <http://insight.trueinsight.za.com>, where he occasionally blogs, and which contains a set of tools he has developed for students doing their theses and dissertations—the Word utilities (a set of Excel utilities and a book on Excel are rumoured to be in the works).

James Bennett

Dr James Bennett holds a BSc in Biological Sciences and an MSc in Ecosystems from the University of Warwick. He undertook his doctoral studies at Coventry University, researching small scale cattle production systems in communal areas of Eastern Cape Province, South Africa. Since completing his PhD, he has lectured in Environmental Science at Coventry University and continued to undertake research in Eastern Cape on the management of communally held rangelands and arable land allocations as common property systems. He has published a number of papers in this field and also reviews regularly for a variety of different journals. He is currently Editor-in-Chief of *African Journal of Range and Forage Science* and European representative for the continuing committee of the International Rangelands Congress.

Jan Roodt

Jan Roodt is the current chairman of the Interfaculty Animal Ethics Committee of the University of the Free State. He has been a scientist in the department of Haematology and Cell Biology at this university for 32 years. He specializes in the role of blood platelets in thrombosis and has 25 years experience in using and developing primate models of various thrombotic diseases. Recently they have developed models for arterial thrombosis and Thrombotic Thrombocytopenic Purpura (TTP) and have tested various experimental drugs successfully in these models. They are currently developing a stroke model, and initial results look very promising.

Speaker Profiles (continued)

Jano Myburgh

Jano Myburgh is a Bloemfontein based commercial and editorial photographer servicing Media houses in Cape Town and Johannesburg as well as businesses in the Free State area. He received his Bachelors Degree in Photography from the Central University of Technology, Free State in 2007 for his thesis "The Free State Forensic Science Department: An Investigation into Photographic Competence". Apart from the mainstream commercial aspects of his business, Jano also produces Fine Art work for exhibition purposes and limited edition print sales. Additionally Jano lectures part-time at the Central University of Technology, Free State where he offers practical and theoretical subjects. He has been a contributing photographer on heritage projects, most notably the South African Heritage Resources Agency's national inventory audit and the National Heritage Council's Driekops Eiland project.

John Taylor

Dr John A Taylor has worked in Australia's rangelands for over 35 years, in roles ranging from a research scientist to Chief of a Division in CSIRO, and most recently as the Director of Rangelands Australia and Professor of Rangeland Management at The University of Queensland. In this role he has won national and international awards for educational programs that enhance learning and for outstanding achievement in academia. John is now semi-retired, and currently a Director of the Primary Industries Education Foundation and Southern Gulf Catchments Ltd; Chair of the Agriculture, Fisheries and Forestry Industry Skills Advisory Group; President of the Australian Rangeland Society and the Australian representative on the Global Rangelands Initiative.

Justin du Toit

Justin du Toit is a Production Scientist at the Grootfontein Agricultural Development Institute. He has taught in the fields of agriculture and grassland science at the University of Fort Hare, the University of KwaZulu-Natal, and the Grootfontein Agricultural Development Institute. His current research interests are climate/grazing effects on vegetation change in the eastern Karoo, and how this affects production agriculture.

Speaker Profiles (continued)

Lize Joubert

Lize Joubert obtained the degrees BSc in 2004, BScHons in 2005, MSc in 2007, all *cum laude*, at the University of the Free State. In 2013 she obtained a PhD in Botany at the University of the Free State. She started her career in the Department of Plant Sciences, UFS, in 2004 as Geo Potts Herbarium assistant, was appointed as professional officer in 2007 and then as lecturer and curator of the Geo Potts Herbarium in 2009. In 2007 she undertook a research visit to several herbaria in Europe and Kew Herbarium in England. Lize has also undertaken fieldwork for plant collection throughout South Africa and Namibia and collaborates with several local and international research associates in the field of plant systematics and pollination biology.

Luthando Dziba

Dr Luthando Dziba is a Principal Scientist and Competency Area Manager: Ecosystem Services at the CSIR Natural Resources and the Environment Unit. He is responsible for research on impacts of climate change and land cover change on ecosystem services as well as mainstreaming of ecosystem services into planning and policy. He also manages three research groups that undertake cutting edge research on various aspects of ecosystem services science. Luthando has been a member of several South African delegations to the United Nations Intergovernmental Science Policy Platform on Biodiversity and Ecosystem Services (IPBES) as science advisor and chaired a working group on Administrative and Institutional Arrangements of the IPBES secretariat at the first IPBES plenary in Bonn in January 2013.

Pieter Duvenage

Professor Pieter Duvenage (born 1963) has studied philosophy in South Africa (Stellenbosch, Pretoria and Port Elizabeth) and Germany (Göttingen and Frankfurt-am-Maine). He received his doctorate in 1994 from the University of Port Elizabeth (now Nelson Mandela Metropolitan University). After his first position as senior lecturer (1995) he has lectured philosophy from 1997 as an associate professor, full professor and visiting professor at various South African universities (Limpopo, UJ, NMMU) and two Australian universities with campuses in South Africa (Bond and Monash). On 1 October 2011 he became full professor and Head of the Department of Philosophy at the University of the Free State in Bloemfontein (South Africa). He is the author and co-author of four books and almost 40 accredited articles in journals and books. He specialises in political and social philosophy within the traditions of Critical Theory, Phenomenology/Hermeneutics and South African Intellectual History. He is accredited as a researcher by the NRF (National Research Foundation) since 2003, a member of the *Akademie (Suid-Afrikaanse Akademie vir Wetenskap en Kuns)* since 2004, and a past president of the Philosophical Society of Southern Africa (2005-2008).

Speaker Profiles (continued)

Robert Schall

Prof Robert Schall is the Head of the Statistical Consultation Unit in the Department of Mathematical Statistics and Actuarial Science, UFS. He graduated in Mathematics from the University of Karlsruhe (Germany), and has a PhD in Mathematical Statistics from the University of Cape Town. From 1997—2008 Robert Schall worked in the private sector as Director of Biostatistics at Quintiles, being a co-founder of that company in Bloemfontein. Robert Schall has many years' experience in statistical consultation, and is the author and co-author of about 130 scientific publications, many of which have arisen of consultation projects.

Terry Everson

Dr Terry Everson is a senior lecturer at the University of KwaZulu-Natal, with which she has had a long involvement. She has been involved in community land rehabilitation projects in the Upper Thukela catchments for the past 12 years. In 2006 she won the research category of the Women in Water awards for her outstanding contribution in advancing the cause of women in Water, Sanitation and Forestry Sectors.

Terry Olckers

Dr Terry Olckers is a senior lecturer in Entomology at the University of KwaZulu-Natal. He acquired his PhD from Rhodes University before being employed by the Plant Protection Research Institute of the Agricultural Research Council. He has been affiliated with the Working for Water Programme in South Africa, Landcare Research in New Zealand, and the Federal University of Parana in Brazil. He has given presentations in many countries across the world, and has published over 35 scientific papers on biological control of alien invasive plants.

Tony Palmer

Dr Tony Palmer leads a research group in the ARC-Animal Production Institute that focuses on using remote sensing to evaluate landscape water use. He has developed landscape analysis techniques which detect changes in natural rangeland (field survey, remote sensing, forage production modelling) and has defined new perspectives on rangeland condition assessment (e.g. using high resolution infra-red imagery). He was awarded a C2 rating by the National Research Foundation (NRF) for his research on the use of MODIS products to estimate landscape scale plant water use and net primary production.

Speaker Profiles (continued)

Wayne Truter

Dr Wayne Truter is currently employed by the University of Pretoria as a senior lecturer and researcher in the Department of Plant Production and Soil Science. His field of specialization is planted pastures, forage crops and the application thereof in land reclamation. He currently manages various research projects for the Pasture Seed Industry, Water Research Commission as well as land reclamation projects for the Coal Mining Research Association of the Chamber of Mines. He also heads the Land Rehabilitation Services Unit at the Business Division of the University of Pretoria. He is responsible for the undergraduate teaching of Pasture Management to Veterinary and Agricultural students. He also presents undergraduate courses in Environmental Resource Assessment and Monitoring, Turfgrass Management, Scientific Writing and Presentation Skills. Postgraduate training is also one of his responsibilities, where he currently supervises 16 students, both MSc and PhD, in the fields of planted pastures, irrigation of pastures, land reclamation and rangeland management.