

Following on from the highly successful Research Skills Workshops held over the past seven years, the Grassland Society of Southern Africa is proud to host the



RESEARCH SKILLS WORKSHOP 2015

19 to 20 July 2015

Hall 9, Royal Agricultural Showgrounds
Pietermaritzburg, KwaZulu-Natal
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 (Sunday lunch and afternoon tea, Monday lunch and two teas, plus workshop materials, NO accommodation))	R 1 650.00	R 2 400.00

Programme DAY 1: Sunday 19 July 2015

12:00 Registration opens (Hall 8)

13:00 LUNCH (Council House)

14:00 Welcome and Introduction, Justin du Toit

14:05 The research question, Tim O'Connor, South African Environmental Observation Network

The research question is central to research, providing a point from which literature is reviewed and experiments are developed. This pivotal aspect of research is often not given the attention it deserves, and many research questions are later found to be essentially unanswerable, uninteresting to the scientific community, or even already answered in other research.

14:50 Throwing the bones, Paul the Octopus, trichotillomaniacal Swedes, and some other important statistical issues in grassland research, Craig Morris, University of the Free State

This presentation will discuss three key issues in making statistical decisions in the murky light of uncertainty: (1) comprehending variability, (2) measuring variability, (3) evaluating variability

15:45 TEA (Hall 8)

16:15 Supervisors vs students needn't be Venus vs Mars, Wayne Truter, University of Pretoria

Mentorship of young researchers in both academic and research institutions is a vital role that senior staff are expected to fulfil, but choosing the best supervisor is not always simple. This presentation will cover some of the considerations when choosing a supervisor as well as the best practices from both the mentor and the mentee in making the relationship productive and peaceful for all parties involved.

16:45 Smartphones, tablets and Android Apps for fieldwork, Clement Cupido, Agricultural Research Council

Smartphones are becoming increasingly popular in modern society. It is predicted that by 2018 more than 50% of cellphone users will have smartphones. These devices can be personalised by downloading applications (apps), which are small software packages that is available for free or at a small cost. Apps essentially turn a smartphone into a multipurpose device which can be used to perform tasks that could be more than useful during fieldwork and in the office. The apps that will be discussed include GPS, mapping and tracking apps, field notebook, gradient calculators, random numbers generator, smart voice recorder, toolbox kit, field guides and more. In addition, the means to backup and email information collected using apps will also be discussed.

17:15 Question and Answer Session with Presenters of Day One

17:30 END OF DAY ONE

Programme DAY 2: Monday 20 July 2015

09:00 Welcome and introduction

09:10 Showing your working: what is good about science, and why it matters, David Spurrett, University of KwaZulu-Natal

Science isn't perfect, but it is valuable. Even though it can and does make mistakes, the ways it works and communicates have distinctive features that we need to understand in order to see why it is valuable, and what we need to do if we want to participate properly. In this talk I try to explain these features, by reference to the idea of 'showing your working'.

10:10 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.

10:40 Obtaining funding for research: applicant and funding body perspectives, Adrian Shrader, University of KwaZulu-Natal

In today's economy, obtaining funds for research is challenging and highly competitive. This presentation will cover some do's and don'ts when it comes for applying for funds. Moreover, as Adrian in the Chairman of a committee that awards bursaries to students, he will provide the additional perspective of what funding agencies look for and expect.

11:10 TEA (Hall 8)

11:40 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 Useful tools for plant identification: vouchers, on-line resources, field herbaria and digitisation, Christina Curry, University of KwaZulu-Natal

My presentation will touch on the following: Steps to follow to facilitate accurate plant identification; Why proper voucher specimens are important; Available electronic and on-line resources; How to construct a field herbarium, and why it is useful; The value of digitising plant collections, and how it can substitute for field herbaria; Important reasons why field botanists and grassland scientists, researchers and consultants need to contribute data and vouchers to recognised herbaria.

Programme DAY 2: Monday 20 July 2015 (continued)

12:30 The ethical and humane care of animals used for scientific purposes, Theresa Coetzer, University of KwaZulu-Natal

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 (Council House)

14:00 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.

14:30 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.

15:00 Ten tips for designing the perfect poster, Adrian Shrader, University of KwaZulu-Natal

Presenting posters at conferences is generally perceived to be second choice after giving a talk. However, if posters are put together well, you can get people to stop, look, and chat to you about your research. Moreover, these chats can last much longer, and thus you can gain more feedback, than if you were to give a talk. In this presentation, Adrian will provide 10 simple tips to improve your posters, and get people to spend more than 11 seconds looking at them..

15:30 TEA (Hall 8)

16:00 Reviewing, Alan Short, Themeda Eco Consulting

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.

16:30 Manuscript writing, Tony Palmer, Agricultural Research Council

Peer-reviewed articles ('papers') are the accepted means of recording and communicating ideas and findings in science. However, the process of scientific writing, especially for beginner scientists, is an arduous one, and scathing reviews of submissions often permanently discourage promising students.

17:00 END OF DAY TWO

Speaker Profiles

Adrian Shrader

Dr Adrian Shrader is a Senior Lecturer of Wildlife Conservation and Management at the University of KwaZulu-Natal (UKZN), Pietermaritzburg. His research focuses primarily on the behavioural ecology of large mammalian herbivores, their interactions with vegetation, and the factors governing their foraging, habitat use, and movements. Adrian has conducted research at the University of the Witwatersrand, University of Pretoria, Nelson Mandela Metropolitan University and UKZN. In addition to ecological research, Adrian has a particular interest in presenting complex scientific findings – be they in the written, poster, or oral forms – in a clear and understandable way. Finally, Adrian has been part of the Gay Langmuir Bursary for Wildlife Research committee at UKZN for the past eight years, and Chairman for the past four.

Alan Short

Alan is a rangeland ecologist with 14 years' experience in the fields of rangeland monitoring, land planning, resource assessment and livestock and biodiversity management in rangelands and landscapes transformed by agriculture. He was a researcher for the KZN Department of Agriculture and Environmental Affairs, running long-term trials and providing extension and training to farmers and others. For three years thereafter, Alan ran the Agricultural Research Council's National Rangeland Monitoring and Improvement Programme. He then moved to Gorongosa National Park, Mozambique, where he worked with researchers from around the world in multiple disciplines, collating information on the ecology of the system. His focus is on the assessment and management of ecosystem goods and services to society, in particular soil and water conservation, biodiversity management, and forage production for livestock and wildlife, working with numerous stakeholders from small-scale farmers to government and private sector. Alan serves as an Associate Editor on the African Journal of Range and Forage Science, the academic journal of the Grassland Society of Southern Africa.

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)

Christina Potgieter

Christina Curry (nee Potgieter) has been the Senior Technician in the Bews Herbarium (UKZN, Pietermaritzburg campus) since 1999. During this time she submitted her PhD in Botany and graduated in 2010. She knows the value of proper herbarium vouchers and plant identification, but also understands the difficulty that students and field workers face with project deadlines, field seasons, and general lack of resources for plant identification. Apart from assisting students, researchers and field workers with preparing vouchers and accessing herbarium resources, she also has experience with vegetation assessment. Christina has authored / co-authored nine research papers and four popular articles, and presented papers at national and international conferences. She has managed several specimen digitisation projects in the Bews herbarium, and regularly instructs interested groups and students on plant pressing and herbarium use. She serves as an NGO representative on the KZN SFRA-LAAC (the committee that comments on new timber permit applications) and has been an active committee member, Chair and Vice-chair of the KZN Inland branch of the Botanical Society of SA.

Craig Morris

Craig Morris is a grassland ecologist employed by the Agricultural Research Council (Animal Production Institute), based at the University of Kwazulu-Natal in Pietermaritzburg. His applied research and data analyses have spanned a range of scales from microbes to mountains, with some decent grasslands (and dark chocolate) in between. Some of the articles I have written or co-written are at:

<https://scholar.google.co.za/citations?user=Ace6F7AAAAAJ&hl=en>
<https://scholar.google.co.za/citations?user=Ace6F7AAAAAJ&hl=en>

David Spurrett

Prof David Spurrett is the Head of the School of Philosophy and Ethics, and Programme Director for Cognitive Science at the University of KwaZulu-Natal, where he received the Distinguished Teacher's Award, and the Vice-Chancellor's Research Award. He also received the President's Award from the National Research Foundation. He has been a visiting research fellow at King's College, London, and a visiting Scholar at St John's College, Cambridge, and he collaborates with researchers from Baylor College of Medicine and the University of Alabama at Birmingham. His main research interest is the philosophy of science and human decision making. He has numerous scientific publications, and has co-authored several books.

Speaker Profiles (continued)

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.

Terry Everson

Dr Terry Everson is a senior research associate at the University of KwaZulu-Natal. She has been involved in community land rehabilitation, payment for ecosystem services and grazing projects in the Upper Thukela catchments for the past 20 years. In 2006 she won the research category of the Women in Water awards for her outstanding contribution in advancing the cause of rural 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.

Theresa Coetzer

Professor Theresa Coetzer established the Animal Research Ethics Committee (AREC) at the former University of Natal in the late 1990s and was Chair of AREC until recently. She is the co-author of the Chapter, Animal rights and animal welfare, in *Ethics in Agriculture - an African Perspective* (2005), A Van Niekerk (Ed) Springer Academic Press. She is a Biochemist and conducts research on proteolytic enzymes of African trypanosomes, (parasites carried by tsetse flies) which cause sleeping sickness in humans and nagana in cattle. A diagnostic test for nagana based on the proteolytic enzyme antigens was developed in her laboratory and is now being adapted as a lateral flow test for use in the field.

Speaker Profiles (continued)

Tim O'Connor

Prof Tim O'Connor is an Observation Science Specialist at SAEON. He was previously Professor and Head of the Department of Range and Forage Resources at the University of Natal, and is currently associated with Witwatersrand University. He has published extensively over the past three decades, mainly on plant community ecology and plant/fire/herbivore interactions.

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.

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.