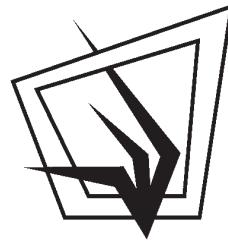


GRASSROOTS

Editor JULIUS TJELELE



Dear Readers

45th Annual Congress to be held in Kimberly is fast approaching and thus far a lot of delegates have registered to attend this Congress compared to previous year this time. One of the most important things about attending the GSSA congress other than presenting scientific papers is networking. Horseshoe Motel, Airport Hotel and other accommodations are close to each other, and this will facilitate networking. So, it is not too late to make necessary arrangements to attend this year's exciting GSSA Congress.

To some of you might have forgotten or does not know; this year is the 20th Anniversary of the establishment of the Bulletin of the Grassland Society of Southern Africa. The first issue was published in December 1990. As GSSA family we are going to celebrate this in style come November Grassroots issue.

Julius

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GRASSROOTS: Newsletter of the Grassland Society of Southern Africa
May 2010 | Vol 10 No.2

GRASSROOTS

May 2010 | Vol 10 No.2

News

- 2 National Sustainable Livestock Task Team: A GreenChoice-Grassland Initiative
- 3 South African Environmental Observation Network (SAEON) Ndlovu - 'Proudly South African' in the Swiss Alps
- 4 Pretoria Computerised Information System (PRECIS) content available on the Web
- 5 Grassland Society Southern Africa/Grootfontein Agricultural Development Institute Research Skills Workshop
- 6 SAEON plays vital role in monitoring South Africa's premier water engine

Features

- 8 Longevity of grass seeds in a semi-arid grassland
by H A Snyman
- 16 The effect of planting date on the dry matter production of annual forage sorghum hybrids and hybrid millet cultivars.
by J. Voigt, PR Botha and HS Gerber
- 22 The effect of *Acacia Mearnsii* removal on water table fluctuations in the Tsomo valley Eastern Cape of South Africa
by HPM MOYO AND S DUBE
- 30 The 45th Annual GSSA Congress

Regulars

- 32 Research opportunities
- 33 AU-TWAS Young Scientists' National Award
- 34 Upcoming events
- 24 Council and members

The Grassland Society of Southern Africa is dedicated to the advancement of the science and practice of range ecology and pasture management.

We welcome any contributions to the Grassroots, in the form of news, informative articles, reports, short research notes, scientific papers and letters to the Editor.

Email jtjelele@arc.agric.za or admin@grassland.org.za or fax +27 (0)86 622 75 76

On the cover: Farmers day at ARC, Roodeplaat Farm, Photo: Frits Oudtshoorn

National Sustainable Livestock Task Team: A GreenChoice-Grassland Initiative

Background

The National Sustainable Livestock Task Team met for the first time in March 2009. The purpose of the workshop was to: a) provide stakeholders with updates on activities in livestock industries as well as conservation advocacy agencies, b) consider the form of National Sustainable Livestock Working Group in the future.

Updates on activities were provided by Grasslands, GreenChoice, Red Meat Organization (RPO), Landmark Foundation, National Wool Growers Association (NWGA), Mohair South Africa, Cheetah Outreach and Biodiversity and Red Meat Initiative (BRI).

Key updates

- The RPO and NWGA have developed code of practice and would like GreenChoice input.
- MWGA is developing a strategic framework.
- Mohair SA has produced the Sustainable Mohair Production Guidelines: pre-farm gate, which was aligned with the reference for well managed farms and produced in consultation with producers.
- Grassland programme is working on a Biodiversity Red Meat Certification initiative and Grassland guidelines to inform appropriate agricultural management practice, and is implementing case studies.
- Landmark foundation has certified its first farmer for their Fair GameTM brand.
- Cheetah Outreach continues to be involved in the Anatolian Shepherd Dog Programme, has started a breeding programme and is the first to use dogs with cattle.

- The Biodiversity and Red Meat Initiative in Kamiesberg Uplands, Namakwa District has begun with stewardship agreements between Conservation International and community/private farmers with small stock. Guidelines are being developed in collaboration with GreenChoice.

- The first official version of the GreenChoice ‘Reference for well managed Farms’ will be distributed to stakeholders.

Key outcomes

- The stakeholders agreed to meet to foster communication, knowledge sharing around business cases for sustainable livestock farming, and identification of research gaps.
- The group will reconvene as “The National Livestock and Wildlife Task Team” where livestock includes small stock, large stock, game, all extensive and intensive livestock farming.
- Meeting will occur ad hoc when progress is made or at least once a year.
- Initiatives will continue to be driven by industry/conservation but greater government presence must be sought for future meetings.
- Need to align activities with Strategic Plan for South African Agriculture.
- A request that all members of the GreenChoice Alliance review industry guidelines based on the Reference for well-managed farms was made by Landmark Foundation. ☺

GreenChoice Newsletter

South African Environmental Observation Network (SAEON) Ndlovu - 'Proudly South African' in the Swiss Alps

DR D THOMPSON,
Biodiversity scientist and,

DR TONY SWEMMER,
Manager, SAEON Ndlovu Node

Global change is already affecting the mountainous regions of the world, with clear evidence of altered weather patterns and the upslope shift of alpine species.

Yet in South Africa, little long-term environmental monitoring of our mountains is taking place, and this is something which is desperately needed if we are to detect and respond to the looming impacts of a changed climate. This is in contrast to many northern hemisphere first-world countries, which have long histories of detailed environmental monitoring. Of these, Switzerland stands out as the global leader.

Ecological monitoring in Swiss Alps

In November last year Tony Swemmer and Dave Thompson of the SAEON Ndlovu Node visited Switzerland to learn about the ecological monitoring being conducted in the Swiss Alps. The trip was made possible by funding for a Swiss-South African Joint Scientific Conference entitled "Towards Fine Resolution Hydro-Ecological Observatories in South African Mountains" and was initiated specifically to promote international collaboration, knowledge transfer and the establishment of a network of permanent environmental observatories in southern African mountains.

The programme covered observing systems related to climate, the atmosphere, hydrology and biodiversity, and took place at the Swiss National Park (Zernez), the Swiss Federal Institute for Forest, Snow and Landscape Research (Davos), the Federal

Office for the Environment (Bern) and the University of Lausanne.

Together with the other South African participants (from the Universities of Pretoria, Witwatersrand, KwaZulu-Natal and Stellenbosch, Ezemvelo KZN Wildlife and private nature reserves), Tony and Dave were absorbed in discussions and institute / monitoring site visits led by colleagues from the Swiss National Park, MeteoSwiss (the Swiss weather service), the Swiss GCOS Programme, the Swiss Phenology Network, the WSL (the Swiss Federal Institute for Forest, Snow and Landscape Research), SwissEx (a group developing sensor networks within the WSL), the Hydrology Division of the Federal Office for the Environment, the Swiss Biodiversity Monitoring Program, GMBA (Global Mountain Biodiversity Assessment), MIREN (Mountain Invasion Research Network) and GLORIA (Global Observation Research Initiative in Alpine Environments).

In return, the South African contingent shared information and challenges relating to current hydro-ecological monitoring efforts taking place in South African mountains. ☺

SAEON Newsletter

Pretoria Computerised Information System (PRECIS) content available on the Web

Are you aware of PRECIS content that are now available, free-of-charge, on the Web?

The Plants of Southern Africa (POSA) provides information about all SA plants, their distribution and current names and links to other resources such as plantzafrica. It also provides access to images of many plants which can be downloaded at <http://posa.sanbi.org/searchspp.php>

SANBI's Integrated Biodiversity Information System (SIBIS) which provides threatened species information, distribution maps, area checklists and general species details <http://sibis.sanbi.org/>

Please make use of these facilities to download, free-of-charge, information that, in the past, you would have requested from the PRECIS Information Officer. Requests for complex data sets may still be directed to the PRECIS Information Officer (precis@sanbi.org.za). Any queries / comments about the data on the POSA or SIBIS websites should also be directed to the PRECIS Information Officer.

Any queries or comments about the structure or functionality of the websites should be directed to Mr. Reuben Roberts (r.roberts@sanbi.org.za). 

SANBI

Grassland Society Southern Africa/Grootfontein Agricultural Development Institute Research Skills Workshop

The Grassland Society of Southern Africa, in collaboration with Grootfontein Agricultural Development Institute, are proud to host a Research Skills Workshop on 21 and 22 September 2010. During this two-day event, researchers, scientists, academics, lecturers, and practitioners will make presentations on issues related to research. Presentation cover a wide range of topics, including the philosophy of science, the scientific method, writing skills, the working environment, and how to make successful poster and platform presentations.

Speakers include:

Justin du Toit (Convenor, Specialist Scientist, GADI)

Dr Luthando Dziba (Senior Manager, Rangelands and Nutrition, ARC)

Dr Terry Everson (Senior Lecturer, University of KwaZulu-Natal)

Steve Germishuizen (Consultant, Forestry Coordinator of Grasslands Programme)

Lisa Hebbelmann (MSc Student, University of KwaZulu-Natal)

Dr Terry Olckers (Senior Lecturer, University of KwaZulu-Natal)

Dr Tony Palmer (Specialist Researcher, Ecology and Biomes, ARC)

Dr Johan van Rooyen (State Veterinarian, GADI)

Dr Adrian Shrader (Senior Lecturer, University of KwaZulu-Natal)

Prof David Spurrett (Professor of Philosophy, University of KwaZulu-Natal)

Dr Susanne Vetter (Lecturer, Rhodes University)

Prof Dave Ward (Professor of Botany, University of KwaZulu-Natal)

Who should attend?

The workshop will be of benefit to scientists, researchers, teachers, managers, technicians and students, especially those involved in agriculture, rangeland science, biology, ecology, and applied sciences.

Venue

The workshop will be held at the Grootfontein Agricultural Development Institute in Middelburg in the Eastern Cape. Accommodation is available in the town and on guest farms in the vicinity. There will be a tour of Grootfontein after the workshop for those who wish to attend, which will highlight current research initiatives, and reflect on its interesting history as a British military camp and training centre from 1903-1910 (see <http://gadi.agric.za/history.htm>).

Further information

For more information on the workshop, including rates, please visit <http://www.grassland.org.za/functions> or email Freyni du Toit, the administrator of the GSSA, at admin@grassland.org.za.

SAEON plays vital role in monitoring South Africa's premier water engine

PROF T O'CONNOR,
SAEON Observation Science Specialist

The grassland biome, which covers 29% of South Africa's surface area, has provided the fabric upon which the industrial heartland of the country has developed.

The grassland biome is the mainstay of crop and livestock agriculture in the country, supports most of the country's rural population, functions as the country's most important water-manufacturing engine, and contains globally significant biodiversity.

Yet 30 % of the biome has already been irretrievably transformed. There is a pressing need to conserve what remains of this biome and to ensure continued delivery of its essential ecosystem services.

A century of investigation

Why is this biome grassland and not some other form of vegetation such as savanna, forest, karoo, or fynbos?

This question remains at the cutting edge of vegetation theory despite close on a century of comment and investigation. Fire is an integral component of this discussion. Many argue that the grassland biome is simply a consequence of frequent fires precluding woody vegetation. In theory, this is easily tested – preclude fire and measure the consequent vegetation changes. There are, however, two simple stumbling blocks. Vegetation change may be slow, thus fire would have to be precluded for an extended period, which is not easy in a fire-prone environment and requires a dedicated effort.

This country is fortunate in having had a handful of visionary ecologists before our time who initiated such experiments 50 or more years ago. It is further fortunate that research was part of a government department's responsibilities, such that adequate re-

sources were available for maintaining these experiments. Two such efforts are located in the Drakensberg region of KwaZulu-Natal at Cathedral Peak and at nThabamhlope. These efforts have experienced different histories since their establishment that offer valuable insights about the relation between fire and vegetation dynamics.

A new research programme has been initiated through a research partnership comprising SAEON, Ezemvelo KZN Wildlife and the University of KwaZulu-Natal. The project is funded by the National Research Foundation through a grant to Prof Tim O'Connor.

Cathedral Peak and nThabamhlope

The SAEON-led study focuses on Cathedral Peak and nThabamhlope. Cathedral Peak was home to one of the outstanding achievements of South African science – the study of long-term water yield from grassland in response to fire management and afforestation.

nThabamhlope used to be a research farm of the KwaZulu-Natal Department of Agriculture until the land was returned to the local community in the 1990s. John Scott and Oliver West established two plots in 1939 that were completely protected from fire and grazing, and described the vegetation at that time. These plots were re-measured by Bobby Westfall, Colin and Terry Everson in 1979, after forty years of protection. At this time both had established closed canopies of woody plants.

Much ground has already been covered in the programme as vegetation change has been studied in detail. Ed Granger completed his PhD on the first twenty years of vegetation succession. Keryn Adcock undertook her MSc on the next twenty odd years of change. These efforts not only documented the rate and pattern of change, but offered well-supported hypotheses about vegetation succession in this environment.

The current MSc research effort continues this tradition to provide a 60-year chronicle of vegetation change. An accidental fire in 2008 has provided a further opportunity to assess directly the impact of fire on this vegetation succession. Hypotheses of the original workers are being refined.

Forces of change

A start has been made with the study of long-term patterns in the fire regime at a landscape scale as fire is a main ecosystem driver. A robust foundation exists for understanding vegetation changes. Fire has been precluded for up to 60 years at Cathedral Peak, Giants Castle and nThabamhlope, thereby offering an unparalleled opportunity to examine succession from grassland to woodland/forest.

Aerial photographs are another invaluable source of evidence of the ingress of woody elements into grassland. They offer a 70 -year history that can be extended to 110 years using photographs from the Boer War – the wooded thickets on the flanks of Spienkop were absent then. Study of bush encroachment on outlying hills in relation to management and topographic influences on fire may presage what lies ahead for the Drakensberg.

Herbaceous vegetation has also received close attention in the past. Additional long-term fire and grazing experiments, plus numerous fence-line contrasts between the protected area and areas accessed by livestock, will allow a comprehensive assessment of forces of change of this vegetation component. Altitudinal transects will be consolidated from existing plots of herbaceous vegetation in order to examine altitudinal shifts in vegetation, especially the expected expansion of C3 grasses and other plants at lower altitude.

Changes in fire regime and vegetation would affect the quality and quantity of resources on which large mammalian herbivores subsist. There is concern about oribi, klipspringer may already have been lost, red hartebeest have been unsuccessfully reintroduced, eland and bushbuck thrive, while the well-being of grey rhebuck and mountain reedbuck is unknown. Research continues on flagship species such as vultures, while a recent broad assessment of

biodiversity might serve as a basis for examining security of biodiversity in this World Heritage Site and its surrounds.

The above-described efforts are simply the first steps in addressing a complex system that capitalises on past research and monitoring. In the near future it is hoped that greater attention can be paid to the influence of land use on ecosystem services.

Effect of different drivers of change

The aim of the study is not simply to show that change is occurring, but to understand the effect of different drivers of change on ecosystem structure and functioning. This, to some extent, is an important contribution of this work as most global change studies focus mainly on establishing that change is taking place. Understanding the actual contribution of individual factors to change is important because it would lead to a targeted approach in terms of mitigation.

Another important impact of the study would be its use of ecosystem as a unit of analysis. Although ecosystems are complex and therefore predicting their response under ‘natural’ conditions is challenging enough without the added complexity of global change impacts, there is a pressing need to aggregate understanding of responses of components or processes into an understanding of ecosystem-level response. Failure to include the complexity of ecosystem structure and functioning increases the risk of erroneous prediction of global change impacts. The research will also yield an understanding of biome shifts (contraction), biodiversity and the threat of alien invasive plants, biogeochemical cycling and productivity, including carbon flux, hydrological functioning and sediments, as well as fire regimes.

The research is also expected to contribute immensely to the understanding of hydrological functioning of catchments and the associated ecosystems; and model climate change, land use, fire, invasive plants, river management, and nutrient loading impact on them. ☺

SAEON Newsletter

Funding Opportunities

Wildlife Conservation Society: Research Fellowship Program

The Research Fellowship Program (RFP) is administered by WCS-Global Conservation's Training & Capacity Building Program and jointly funded by the Conservation Leadership Programme (CLP). The RFP is a small grants program designed to build capacity for the next generation of conservationists through supporting individual field research projects that have a clear application to the conservation of threatened wildlife and habitat. We seek projects that are based on sound and innovative conservation science and that encourage practices in conservation that can contribute to sustainable development. Most of the grantees are professional conservationists from the country of research and/or post-graduates pursuing a higher degree.

One of the priorities of the RFP has been to help train applied conservation scientists from developing countries. Over 41% of the total funded proposals have come from national conservationists (conservationists who are citizens of the country where they are conducting their research). 48% of grants to work in Latin America have been to nationals, 43% of grants to work in Asia have been to nationals, and 32% of grants to work in Africa have been to nationals. Collectively, these young professionals will help to apply field-tested conservation science to the challenges facing the conservation community.

Applications

Location The RFP supports marine or terrestrial field research in Africa, Asia, and Latin America regardless of the nationality of the applicant. In addition, the RFP accepts applications from Native Americans (US) and First Nation Peoples (Canada) who intend to conduct work on native lands on issues of direct relevance to wildlife.

While all applications to work in Asian, African, and Latin American countries are considered, CLP funding is restricted to nationals from the following

countries: Algeria, Angola, Argentina, Azerbaijan, Bolivia, Brazil, China, Colombia, Egypt, Georgia, India, Indonesia, Libya, Malaysia, Mexico, Pakistan, Russia, Trinidad & Tobago, Turkey and Venezuela.

The RFP does not support research in North America (except as mentioned above), Australia, New Zealand, Europe or their territories, or Japan.

Grantees

The RFP will not limit any eligible individual from applying, however, most of our grantees are:

- Professional conservationists from the country of research, and/or
- Post-graduates pursuing a higher degree Grants
- Grants are for up to \$25,000 and the average grants is \$10,500.

Timeline

The RFP supports projects for only one year, so preference is given to discrete, short-term projects. Projects extending beyond one year must highlight achievable goals at the end of the year for which the funding is requested. Proposals are submitted in a standard format for two annual cycles with deadlines on March 15 and September 15. Final decisions and awards are usually announced at the end of June (for the March 15 deadline) and December (for the September 15 deadline) with funding becoming available in July and January.

Review and Evaluation

Proposals are evaluated on a competitive basis by outside technical reviewers and WCS staff. Projects are evaluated on three major criteria:

- Applicant's potential as conservation professional: the capacity building value of the proposed project.
- Relevance to wildlife conservation: a clear application of the research results to an important conservation question
- Scientific merit and value: in particular a clearly expressed research question with appropriate methodology and analysis.

AU-TWAS Young Scientists' National Award

For more detailed information about the application process visit, www.wcs.org/international/tcbp/rfp/rfpapplication

Swedish Research links programme

International Collaborative Research Grants Sweden, Asia, MENA and southern Africa

The Swedish Research Links Programme seeks to foster research ties between researchers in Sweden, on the one hand, and researchers in Asia, the Middle East and North Africa region (MENA) and southern Africa on the other. The key condition for the Swedish Research Links Programme is that researchers from the countries involved must submit joint applications on projects of mutual interest. Contact person: Raven Jimmy National Research Foundation Tel: 012 481 4069. 

The AU-TWAS Young Scientist National Award which is open to both male and female young researchers is designed to recognize the scientific achievements of young researchers working and living in Africa and to encourage them to continue to strive for excellence in their scientific careers.

In each African country, the AU-TWAS award will be given annually in the following 2 fields of science:

- Life and Earth Sciences;
- Basic Sciences, Technology and Innovation.

For each award, AU and TWAS shall make available a yearly amount of up to US\$5,000 as prize money. In addition to the cash award, the winners will also receive a certificate.

This new initiative, to be implemented from 2010, has been developed from the existing TWAS award for your scientists from developed countries. In African countries, the AU-TWAS Young Scientists National Award will replace any previous agreement of collaboration signed with TWAS within the framework of the prizes to young scientists from developing countries.

The deadline is 30 June 2010.

For more information contact Philistas Masinga at
Tel: +27 12 349 6605
Cell No: +27 72 185 8681
E mail: philistas@assaf.org.za 

Upcoming events

South African National Seed Organization: 21st Annual Congress

Date: 05-06 May 2010

Venue: Glenburn Lodge Country Estate, Muldersdrift, Gauteng

Contact: Melody Spicer

Tel: 012 349 1438

International Seed Federation World Seed Congress 2010

Date: 31 May - 02 June 2010

Venue: Calgary, Alberta, Canada

Tel: +41 22 365 4420

email: register@worldseed.org

Green Business Africa Summit and Expo 2010

Sustainability in the business environment as well as green corporate social responsibility

Date: 02-04 June 2010

Venue: Nairobi, Kenya

Contact: Sam Ooko

Tel: +254 20 248 7420

email: sam@solargrenmedia.com

Beef Production

Date: 01-03 June 2010

Venue: Agricultural Research Council (Irene), Centurion

Cost: R1600.00

Contact: Annetjie Loubser

Tel: 012 672 9153;

email: aloubser@arc.agric.za

4th Grazing Livestock Nutrition Conference

Improving Ruminant Usage of Forages in Sustainable Production Systems

Date: 09-10 July 2010

Venue: Estes Park, Colorado, USA

Contact: Dr. Richard Waterman

email: Richard.waterman@ars.usda.gov

5th International Wildland Fire Conference - South Africa

Date: 09-13 May 2011

Venue: South Africa

Tel: +27 (21) 797 5787

email: info@wildfire2011.org

Council members

Council Members, with the exception of the Scientific and Publication Editors, are elected at the Annual General Meeting after being nominated by fellow Members of the Society. The Vice President is elected each year, while all other positions are filled every two years. The Scientific Editor and Publication Editor are positions appointed by the retiring Council at the last meeting of their term.

If you would like to nominate a fellow Society Member to stand on Council, please download, download the nomination form from www.gssa.za/council-members and fax it to +27 (0)86 622 7576.

Positions that need to be nominated for the 2010/2011 Council are:

- Vice President
- Honorary Secretary
- Honorary Treasurer
- Additional Member (Assistant Publications Editor)
- Additional Member (Website Editor)
- Additional Member (Pastures)

All retiring Councillors shall be eligible for re-election, except the retiring President, who shall not be eligible for re-election for the ensuing term, but shall remain on the Council as Immediate Past President. ☺

New and resigned members

New members

Benjiman Breedlove, BBreedlove (Pty) Ltd

David Lotter, Themedia Game Farm Services, Managing Director

Graham von Maltitz, CSIR, Senior Researcher

Hennie de Beer, Agricultural Research Council, Research Technician

Lerato Letsoalo, Limpopo Department of Agriculture, Animal Scientist

Lindiwe Mbele, Agricultural Research Council, Research Technician

Lucas Manaka, Agricultural Research Council, Research Technician

Mike Schellenberg, Agriculture and Agri-Food Canada, Research Scientist: Plant & Range Ecology

Rick Dillon, Self Employed, land use planning and rural development

Thabisiso Ndhlovu, University of Stellenbosch, MSc Student

Thuys Botha

Yolandi Bezuidenhout, Highveld Steel & Vanadium Corporation, Environmental Manager

Resigned members

Albert Smith

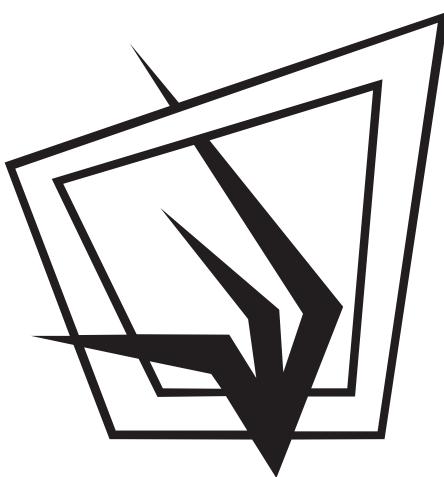
Colin Pringle

Hennie Gerber

P Yiannakis ☺



Farmers day at ARC, Roodeplaat Farm, Photo: Frits Oudtshoorn



GRASSROOTS

Newsletter of the GRASSLAND SOCIETY of SOUTHERN AFRICA

Incorporating the Bulletin of the Grassland Society of Southern Africa

ISSN: 10166122 | Vol. 10 No. 2 | May 2010