

Provisional Programme

ARID ZONE ECOLOGY FORUM

25-28 August 2003

Kathu Sport & Recreation Hall
Kathu, Northern Cape Province



AZEF

Theme: Costs and benefits of biodiversity maintenance and repair in the arid zone

Monday, 25 August 2003

- 16:00-17:30 Registration
17:30-18:00 Briefing Session
18:00-19:00 Leisure time
19:00 Cocktails

Tuesday, 26 August 2003

- 07:30-08:30 Registration
08:30-08:40 Welcome and announcements – Mark Anderson

PAPER SESSION 1: COSTS AND BENEFITS OF BIODIVERSITY MAINTENANCE AND REPAIR IN THE ARID ZONE

(Chairperson: Mark Anderson)

- 08:40-09:10 The hidden costs and benefits of Renosterveld conversion in a commercial agricultural landscape.
O'Farrell, PJ / Donaldson, JS / Hoffman, MT (INVITED SPEAKER)
- 09:10-09:40 The costs and benefits of communal, commercial and conservation land use practices in Namaqualand.
James, I / Hoffman, MT / Allsopp, N (INVITED SPEAKER)
- 09:40-10:10 Cost of rehabilitation: ecological sustainability versus financial inputs.
Van Rensburg, L / Kellner, K (INVITED SPEAKER)
- 10:10-10:40 **TEA**

PAPER SESSION 2: COSTS AND BENEFITS OF BIODIVERSITY MAINTENANCE AND REPAIR IN THE ARID ZONE

(Chairperson: Nelmarie Visser)

- 10:40-11:00 The costs and benefits of maintaining harvester termite predator biodiversity in semi-arid grass lands.
Mitchell, JD
- 11:00-11:20 An overview and summary of policies and legislation concerning the conservation and restoration of natural resources in arid and semi-arid regions of South Africa.
Van den Berg, L
- 11:20-11:40 Assessing the rangelands of the Little Karoo.
Cupido, C / Milton, SJ / Visser, N
- 10:40-12:00 Why is the Succulent Karoo full of Succulents: victors or victims
Carrick, P

PAPER SESSION 3: RESTORATION OF DEGRADED LAND IN THE ARID ZONE

(Chairperson: Loraine van den Berg)

- 12:00-12:30 Restoration and "emerging ecosystems" in the Arid Zone.
Milton, SJ (INVITED SPEAKER)
- 12:30-12:50 Financial analysis of rehabilitation
Mahood, K / Mahood, K
- 12:50-13:10 EcoRestore – a Decision Support System for the restoration of degraded rangelands in southern Africa.
Barac, A / Kellner, K
- 13:10-14:00 **LUNCH**

PAPER SESSION 4: ANIMAL STUDIES IN THE ARID ZONE

(Chairperson: Sue Milton)

- 14:00-14:20 Vulture conservation issues in the arid zone.
Anderson, MD
- 14:20-14:40 A new strategy for control of the brown locust.
Price, RE
- 14:40-15:00 Information core for southern African migrant pests.
Powell, ME
- 15:00-15:20 Changes in bird species composition and abundance in vineyards and native habitats in the Orange River valley.
Herrmann, E & Anderson, MD
- 15:20-15:50 **TEA**

POSTER SESSION 1

(Chairperson: Anuschka Barac)

- 15:50-16:00 Are pollination services influenced by land use? First results.
Mayer, C
- 16:00-16:10 Information core for southern African migrant pests.
Powell, ME
- 16:10-16:20 Influence of grazing intensity on the biodiversity of small mammals and arthropods.
Zeller, U / Hoffman, A / Vohland, K / Deckert, J / Giere, P / Muck, C / Uhlig, M (Presented by Ute Schmiedel)
- 16:20-16:30 Restoration of bare patches in a semi-arid grassland.
Snyman, HA
- 16:30-16:40 Restoration ecology: Survival of different oversown grass species in a semi-arid grassland.
Van Rensburg, G
- 16:40-16:50 Historical overview of revegetation trials at Sishen Iron Ore Mine.
Van Rensburg, L / van Wyk, S / Morgenthal, T
- 16:50-17:00 The evaluation of various restoration techniques applied on a bare patch in the Beaufort-West district.
Visser, N / Botha, JC
- 17:00-17:10 The influence of prolonged seasonal defoliation on veld yields in the Central Free State.
Vorster, LF
- 17:10-17:20 Land use change in the Succulent Karoo biome: agriculture potential.
Jonas, Z / Hoffman, MT / Rouget, M
- 17:45-19:00 **INFORMAL ROUND TABLE DISCUSSION:** "Science in action: getting the message across".
Facilitated by Timm Hoffman and Mark Anderson

19:30 **DINNER** (Guest speaker)

Wednesday, 27 August 2003

08:00 Collect lunch packs and depart on field trip.

08:00-17:00 **Field Trips**

1. Tswalu Kalahari Reserve
2. Kathu area

19:30 **BRAAI**

Thursday, 28 August 2003

PAPER SESSION 5: BIODIVERSITY CONSERVATION IN THE ARID ZONE

(Chairperson: Ute Schmiedel)

- 07:45-08:05 Conserving biodiversity and riverine vegetation in the central Karoo – the case of the riverine rabbit, *Bunolagus monticularis*.
Collins, K / du Toit, JT / Reyers, B
- 08:05-08:25 The Desert Margins Programme in South Africa - to conserve and restore biodiversity in arid systems.
Kellner, K
- 08:25-08:45 Transfrontier Conservation – Keystone for optimal development in Gariiep Centre.
Van der Walt, P
- 08:45-09:05 Quantifying the dependence of the leopard (*Panthera pardus*) on herbaceous and browse production in semi-arid savanna.
Van Wyk, G / Smit, GN

PAPER SESSION 6: ARID ZONE LAND MANAGEMENT SYSTEMS

(Chairperson: Timm Hoffman)

- 09:05-09:25 Assessing the impact of natural resource utilisation by resource poor farmers in the Suidbokkeveld using remote sensing and participatory techniques.
Salaam, W
- 09:25-09:45 Freehold and communal land use: Empirical evidence of contrasts and convergence.
Schneiderat, U / Siegmund-Schultze, M / Buss, H-J / Falk, T / Nuppenau, E-A / Kirk, M
- 09:45-10:05 A decision support system for the management of semi-arid savannas in Namibia, with emphasis on bush thickening by *Acacia mellifera*
Joubert, D / Zimmermann, I / Graz, FP / Fendler, J / Dietrich, J

10:05-10:35 **TEA**

PAPER SESSION 7: BOTANICAL STUDIES IN THE ARID ZONE

(Chairperson: Tania Anderson)

- 10:35-10:55 Root biomass, spatial distribution and relations with aboveground biomass of savanna woody plants – a review.
Smit, GN
- 10:55-11:15 Relationship of root mass and length under combined water stress and defoliation in *Themeda triandra* Forsk.
Oosthuizen, IB
- 11:15-11:35 Limitations for Sustainable Utilisation of *Portulacaria afra* in the Valley Bushveld
de Ridder, N
- 11:35-11:55 A new classification of vegetation types of the arid zone of South Africa.

Rutherford, MC / Mucina, L / Powrie, LW

11:55-12:15 Regional differences in the long-term population dynamics of a succulent tree, *Aloe dichotoma* in the semi-arid Karoo, South Africa as revealed by repeat photography.
Kaleme, P / Hoffman, MT / Rohde, R

12:15-12:35 The impacts of water point provision on the vegetation of the Nama Karoo
Todd, S

12:35-12:55 Is ultraviolet radiation driving biodiversity in the Succulent Karoo?
Burgoyne, PM

12:50-14:00 **LUNCH**

POSTER SESSION 2

(Chairperson: Nico Smit)

14:00-14:10 A simple method of evaluating veld recovery.
Du Toit, PC

14:10-14:20 The impact of elephants on the Limpopo riverine forests in the semi-arid region of the Limpopo Province.
De Beer, G / Burger, L

14:20-14:30 The monitoring of water abstraction in the Limpopo river and development of indicators to minimize deterioration of Limpopo riverine vegetation.
De Beer, G / Burger, L

14:30-14:40 Back to the abundance of Mother Nature's pharmacy.
De Jager, M

14:40-14:50 Ants as bio-indicators.
Netshilaphala, N

14:50-15:00 Influence of water stress on shoot/root ratio and water-use efficiency of two *Opuntia* (spineless cactus pear) species.
Ramakatane, ME / Snyman, HA

15:00-15:10 Root dynamics of two *Opuntia* (spineless cactus pear) species.
Ratsele, C / Snyman, HA

15:10-15:20 Estimating the potential for degradation along a large scale rainfall gradient.
Roberts, W / Archer, E / Knight R

15:20-15:30 Large trees, productivity and biodiversity in the Kalahari: the influence of tree size on subcanopy plant assemblages.
Seymour, C

15:30-15:40 The influence of subhabitat differentiation on the soil under varying competition regimes in Mopane savanna.
Smit, GN

15:40-15:50 Unplanned fires and sustainability of a semi-arid grassland.
Snyman, HA

15:50-16:00 Compilation of the Nama Karoo Vegetation Map using GIS Modeling and Remote Sensing Technology.
van der Merwe, JPA / Lloyd, JW / Mucina, L

16:00-16:30 **TEA**

16:30-17:30 **ANNUAL GENERAL MEETING, PRIZE-GIVING AND CLOSURE**

19:00 **DINNER**