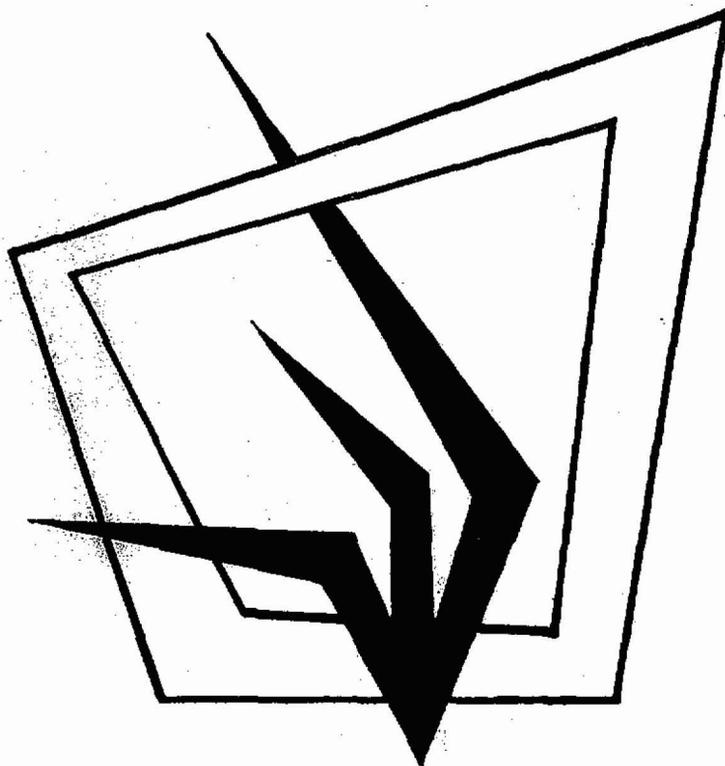


**BULLETIN OF THE  
GRASSLAND SOCIETY OF  
SOUTHERN AFRICA**



Volume 5 (1)

January 1994

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GRASSLAND SOCIETY OF SOUTHERN AFRICA**

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## EDITORIAL

### SEASONS' GREETINGS FOLKS!

Just a bright, cheery, greeting to all the learned folk out there - pity we are not hearing more from you! Your attention is drawn to the "Progress made with the strategic plan for the GSSA, 1993" article and in particular the point under "Action 2" which states "... the scope of the bulletin will be expanded to allow...articles and papers of a more speculative nature and...provide... a forum for debate and exchange of ideas". Submissions to this bulletin are hence invited.

- Contributions may take the form of:
- \* feature articles;
  - \* research updates;
  - \* news and points of view ;
  - \* practical or technological information of interest or usefulness;
  - \* research programme proposals and reports;
  - \* brief reviews of new (or old and forgotten) books which have been or help;
  - \* details of relevant conferences, workshops and training courses; and,
  - \* basically, any other grassland science related activity.

Is anybody actually doing anything out there? What methods are working or, better still, not working out there?! Remember this is your bulletin, so use it to tap into a wider network or use it as a springboard for those ideas others may see as being eccentric, radical, impractical or over ambitious. Technology, mathematical and statistical techniques are merrily rocketing along no doubt leaving most of us behind. Does anyone have a 'road-map' to guide one through the maze of vegetation survey techniques available or what of a 'toolbox' of statistical methods?

We would welcome articles describing your experimental 'flops'. Here we do not mean those trials that failed to get a three star rating ( $P < 0.001$ ) - these should be reported in the journal anyway - but those experiments where things went wrong. A new technique may not have worked or a particular sampling strategy may not have been as appropriate as one hoped. You will save a lot of people a lot of heartache and backache if you warn them now. We can learn more from our failures than our successes (which may explain why some of us, particularly in Natal, are so wise in recently losing the hallowed rugby Currie Cup!).

The bulletin will gladly publish results from trials where the methodology may have turned the references pale (perhaps because treatments were not replicated 15 times and run over 100 years). If the results confuse you then send them to us and we will publish them for you to a wider audience through the bulletin. After all, communication is the name of the game and any experimental results deserve their fair exposure. Let us hear from you!!

Congress 29 is to be held in Harare, Zimbabwe, from 17 - 21 January 1994. Abstracts of papers and poster presentations for the congress form the bulk of this volume and the tireless efforts of Richard Hurt in processing the abstracts is gratefully acknowledged. Judging by the abstracts, the congress promises to be a good one.

That's all for 1993 folks. Have yourselves a Merry Christmas & a Prosperous New Year and do not forget to send in your contributions to the bulletin in 1994! (Note that the deadline for the next issue of the bulletin is 2 May 1994).

## OBITUARY

### Dr. Raymond W. Brougham (1926 - 1993)

Dr Ray Brougham died suddenly in Palmerston North, New Zealand, on Sunday 24 October, while taking one of his regular walks through the city.

Born in Palmerston North in 1926, Ray completed his schooling in Palmerston North and, when working as a clerk for the local power board in 1945, had a chance encounter with DSIR Grasslands director Bruce Levy, who gave him a job as a casual labourer at the DSIR. This launched him on his career in grasslands. In 1947 he was given leave to study for the B.Sc. at the University of Canterbury, from which he graduated in 1950. Following this, he was appointed to the research staff of the DSIR, and during the 1950s and 1960s undertook much significant research into pasture establishment and grazing management.

Ray was appointed chief pasture ecologist at Grasslands in 1961 and was awarded the D.Sc. degree by the University of Canterbury in 1963 for his work on pasture ecology. He continued his study of grazing management concepts, particularly those related to the production of bull beef off pasture, through the 1970s even while carrying the post of Director (a position to which he had been appointed in 1971). This work contributed significantly to the development of this industry in New Zealand. He retired from the position of Director in 1986, having by this time published a hundred scientific and technical papers, spent many hours with farm discussion groups, at farmers' conferences and with industry, considerably expanded the research facilities of the grassland research organisation throughout New Zealand and done much to stimulate work on turf culture (he was President of the NZ Turf Culture Institute for close on a decade and later an Honorary Life Member, as well as being an Honorary Editor of the NZ Turf Journal).

Ray developed strong international links throughout his career and on retirement actively consulted for FAO and the World Bank. He has, for example, had a major involvement in land development projects in mainland China, which he last visited as recently as August this year. These links culminated in his Presidency of the 17th International Grassland Congress held in Australia and New Zealand in 1993, a congress regarded by many to be the most successful congress yet held by this organisation.

We in southern Africa have also, of course, benefitted from his considerable expertise. In 1984 he was invited by the South African Ministry of Agriculture to assess the research programmes and the general structure of the agricultural research organisation of the Department of Agriculture. His report on this investigation has served as a blueprint for developments since that time, which have included the formation of the Rooideplaas Grassland Institute and a considerable increase in both funding and staffing of the discipline of Grassland Science. He returned again to South Africa in 1991, where he participated in our prestige congress held in Pretoria. At this Congress he was elected an Honorary Member of our Society, but this was only one of a number of prestigious awards which he received during his lifetime. These included recognition as a Distinguished Grasslander by the American Forage and Grassland Council, the award of Honorary Membership of the New Zealand Grassland Association, the New Zealand 1990 Commemorative Medal and Membership of the Order of the British Empire.

Ray was, at the time of his death, assisting us with the organisation of a meeting of members of the 'Africa Committee of the International Grassland Congress' scheduled for the January congress of the Zimbabwe/southern Africa Grassland Societies. He had already secured international funding for the members of the Africa committee to attend this congress, and had promised his support for our efforts to host an International Rangeland or Grassland congress in Africa.

We will miss Ray's expert council at our planned meetings in Harare (to which he had been invited by our Society) and we will miss him in our future dealings with the international grassland fraternity. Above all, however, we will miss him as a true friend.

## SOCIETY NEWS

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### PROGRESS MADE WITH THE STRATEGIC PLAN FOR THE GSSA, 1993

*M.M. Wolfson, Roodeplaat Grassland Institute,  
P/B X05, Lynn East, 0039*

During the last AGM of the GSSA, the Council undertook to keep the members of the Society informed about progress with the implementation of the Strategic Plan for the Society. The following is a review of actions which have been initiated as well as those that are already being undertaken.

#### GOAL 1

**To elevate the discipline as an essential profession**

#### ACTIONS

- **Publish articles in the popular media**

- For several years now Mr E.B. Dickinson has been preparing articles, based on papers published in the journal, for publication as "Grassland Gleanings". Initially, they were published in Die Boer, but more recently appeared in Rooivleis.
- Professor Snyman has arranged for Mr A. Horn, press officer from University of the OFS, who has had experience in writing articles for the popular press, to prepare a proposal with regard to the writing up of the scientific articles as well as papers and posters presented at the Annual Congress, into a format for publication in the popular media.

- **Advertise in the popular media.**

- **Advertise GSSA at other conferences.**

- A display has been prepared by J. Mynhardt, A. Moolman and K. van R. van Oudtshoorn with material contributed by GSSA members throughout South Africa, which will be used initially at the Schools Science EXPO. The display has however, been created in a format which will enable it to be transported easily and used at other venues.
- A data base has been acquired providing information on other conferences, workshops etc to be held throughout Southern Africa in 93/94, thus facilitating the further use of this display.

- **Approach local wildlife society branches for opportunities to speak about veld etc.**

- **Use opportunities presented by drought to highlight importance of the profession**

- **Prepare and distribute a brochure describing the discipline**

- A brochure has already been prepared and distributed by F. Hobson about the Grassland Society of southern Africa.

- The schools and tertiary education subcommittee is busy preparing a pamphlet designed to inform young people and potential grassland scientists about the GSSA and the discipline of Grassland Science.
- C. Fabricius is planning a project to produce a series of information pamphlets on "Sustainable Range and Forage Management in Southern Africa" covering aspects such as:
  - the causes and effects of overgrazing,
  - the consequences for the farmer and for future generation,
  - the benefits of sustainable range management to the land owner.

The expertise of different members of the GSSA in the management of moist grassveld (Natal), sweet grassveld (OFS), sour grassveld (Highveld), savannas, Valley Bushveld, and Karoo etc will be used in the production of these pamphlets.

- **Focus on contact with schools, undergraduates and graduates.**
  - A pamphlet for schools and students is being prepared in conjunction with University Grassland Science and Botany Departments. The Technicians and Agricultural Colleges will also be approached to become involved. Some of those already approached have responded enthusiastically and there have even been offers of assistance with the financing of the pamphlet with a request that advertising space be made available for the different educational institutions.
  - Participation in the Schools Science EXPO. (A report on the involvement of the GSSA will be published in the bulletin)
  - The Affirmative Action programme of the FRD has been approached for financial assistance for black students to attend the Annual Congress.
  - The possibility of the GSSA giving prizes for the best graduate student in Grassland Science is being discussed.
- **Create and publicise professional register**
  - The professional register has as already been created, and copies of the register will be made available.
- **Approach environmental control officers in corporate sector**
- **Work with extension officers**
- **Brainstorm new name and implications for Society.**
  - The general consensus obtained from the opinions expressed by members was that a change in name of the GSSA was not necessary especially if the GSSA is more widely advertised. However, the name of the journal has been changed.
- **Report back to members on major changes which may arise.**
  - Members are being kept informed of progress being made through reports appearing in the bulletin.

## GOAL 2

**To provide a home or support base for professional rangeland and pasture scientists**

### ACTIONS

- **Circulate current membership and professional registers**
  - Current membership registers are normally made available to members on an annual basis and the professional register will be circulated as soon as possible.
- **Issue membership certificates**
  - Once applications for membership are approved, members are being issued with membership certificates.
- **Hold regular annual congress**
  - The GSSA congress is being held on an annual basis.
- **Hold specialist symposiums**
  - Prestige Farmers' Days are serving as a forum for the specialist forums and to a certain extent the Pasture Farmers' Forum is also fulfilling this task.
- **Produce a journal of international standing - change name.**
  - The name of the journal has been changed to the "African Journal of Range and Forage Science".
- **Produce bulletin with expanded focus**
  - The editor of the Bulletin is aware of this need and it is hoped that the scope of the bulletin will be expanded to allow the incorporation of articles and papers of a more speculative nature and thus provide more of a forum for debate and exchange of ideas.
- **Develop International liaison**
  - liaison has been established with the Society of Range Management, particularly the group involved with Developing areas, through visits carried out by Council members and with Urs Kreuter who is based in the USA and is prepared to look after the interests of the GSSA.
  - Lists of referees have been exchanged with the SRM and the New Zealand Journal of Agricultural Science.
  - Professor Tainton is corresponding with possible African contacts and it is hoped that many of them will be attending the Conference in Harare where these contacts can be formalized.
  - Overseas referees are being used for some of the journal papers.
- **Introduce a dynamic management structure**

**GOAL 3**

**To be an active facilitator, catalyst and co-ordinator for the rangeland and pasture industry**

**ACTIONS**

- **Develop regional structures**

This is being investigated at present by K. Kirkman who is preparing a proposal on this issue for discussion by the GSSA members.

- **Develop pasture farmers' forum**

Aims, Objectives and future structure of the Forum will be discussed during the Farmers' Forum being organised during the 1994 Annual Congress

- **Hold workshops and demonstrations**

- **Continue Prestige Farmers' Days**

- **Establish 'Developing Areas' Branch**

This has been established by G. Hatch - the Proceedings of the first meeting have already been published and the second meeting is planned for March 1994 in Lesotho.

**GOAL 4**

**To make the Society more representative of the people, regions and range-use options in Southern Africa**

**ACTIONS**

- **Seek actively to hold activities throughout the country**

- Establish Regional structures?

- **Invite congress speakers from other parts of Southern Africa and other African countries**

- The 1994 Annual Congress to be held in Zimbabwe is being attended by a number of African delegates.

- **Use relevant databases for broad contact and advertisement**

- **Circulate information on activities to relevant organisations**

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## REPORT ON THE EXPO FOR YOUNG SCIENTISTS 30 SEPTEMBER TO 3 OCTOBER 1993

*Jennifer Mynhardt, Roodeplaai Grassland Institute,  
P/B X05, Lynn East, 0039*

The GSSA was privileged to take part in the Expo for Young Scientists which was held in the Sports' Centre at the University of Pretoria from 30 September to 3 October 1993. Twenty three regions including Swaziland were represented at the Expo. A total of 467 projects in 39 categories were entered. Of these, 9 categories involved Biological Sciences, Agricultural Sciences, Environmental Sciences and Ecology. Anneline Moolman, Jennifer Mynhardt and Karen van Oudtshoorn, representing the GSSA, were responsible for the evaluation of projects relating to Grassland Science. Judging was based on the scientific work and effort that went into preparing the exhibit, initiative shown and scientific method followed by the exhibitor, the quality of the exhibitor's findings and the scientific and technical skills that the exhibitor acquired during the study.

Even though the leaflets advertising the prizes offered by the GSSA were distributed fairly late in the year, we were delighted that at least one exhibit was related specifically to Grassland Science. The exhibit in the category Environmental Studies and Ecology was entitled "Ekobehoud of degredasie - die belangrike rol van veldkennis" was prepared by a 12 year old primary school pupil from the Sentrale Volksskool, Goldfields. Albert Geldenhuys, the exhibitor, was full of enthusiasm for his project and intensive questioning by the judges revealed his extraordinary understanding of the veld as a crucial resource as well as the importance of the correct management of this resource and the role it plays in the ecosystem. Albert's exhibit was composed of data collected during the past three years on his father's farm, interpretation of the data, photographs illustrating good and degraded veld, working models illustrating the effect of good veld management on seedling recruitment, herbarium specimens and seeds of different grass species as well as a written report on veld degradation problems and possible solutions. The emphasis of the whole project was on "veld knowledge" and the correct management thereof.

The decision of the judges that the project was of a high standard and expanded "vertically" well beyond the school curriculum was unanimous. The GSSA awarded a gold medal, cash prize and a book prize to this deserving student. (He also received a silver medal from the Department of Environmental Affairs). Although still young, Albert is very aware of the critical condition of the natural veld resources of Southern Africa and the need for immediate action. He also showed keen interest in and has already requested possible assistance from members of the GSSA in projects he has planned for the future.

The GSSA also had an exhibit at the Expo. An encouraging number of students, teachers, parents and other experts expressed interest in the work being undertaken by the GSSA and its members. The Society can look forward, with anticipation, to our participation in the 1994 Expo.

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## SPECIAL BOOK OFFER

**The wheel-point method of survey and measurement of semi-open grasslands and Karoo vegetation in South Africa.** C. E. M. Tidmarsh & C. M. Havenga. 1955. 43pp.; 23 figures including 18 graphs bound into the book and also printed separately on cardboard for field use.

This classic in the field of quantitative vegetation ecology, published almost 40 years ago, is still of direct relevance to the present-day worker.

It is now offered at the price of only R5.00 (+ inland postage R2.50) and is available from: Bookshop, National Botanical Institute, Private Bag X101, Pretoria 0001.

## DIARY

## CONGRESSES, SYMPOSIA &amp; COURSES

**6-11 January 1994**

**Dunes '94.** International Coastal Dunes Conference, University of Port Elizabeth. Contact: Prof GC Bate, Botany Dept, UPE, PO Box 1600, Port Elizabeth, 6000. Tel: (041) 504 2396 or Fax: (041) 53 2317

**14-17 January 1994**

**Erosion and desertification in regions of mediterranean climate (MED).** University of Cape Town. Contact: Dr Mike Meadows, Dept of Environmental and Geo-graphical Science, UCT, Private Bag Rondebosch 7700

**17-21 January 1994**

**Grassland Society of Southern Africa, 29th Annual Congress (I).** Faculty of Agriculture, University of Zimbabwe, Harare, Zimbabwe. Contact: Richard Winkfield, Chairman GSZ, P O Box MP 84, Mount Pleasant, Harare, Zimbabwe or John Clatworthy, Organising Committee, P O Box 113, Marondera, Zimbabwe.

**1-4 February 1994**

**Efficient utilization and management of water resources in Africa.** Khartoum, Sudan. Contact: Dr Gamal Abdo, Faculty of Engineering and Architecture, University of Khartoum, PO Box 321, Khartoum, Sudan.

**28 - 31 March 1994**

**Thirty Third Annual Congress of the South African Society of Animal Science. " Findings and Future Directions".** Warmbad Aventura Resort. Four speakers from abroad supported by a host of local animal scientists. Contact: The Organisers, SASAS Congress 1994, P O Box 166, IRENE, 1675.

**23-25 March 1994**

**People, Rangelands and Development.** Maseru, Lesotho. Second Symposium of the Developing Areas Branch, Grassland Society of Southern Africa. Contact: Grant Hatch, University of Natal, Department of Grassland Science, P O Box 375, Pietermaritzburg, 3200. Telephone number: (0331) 955 509 or Fax (0331) 955 067.

**12 - 16 June 1994**

**Eighth Asian Symposium on medicinal plants, spices and other products (ASOMPS VIII).** Melaka, Malaysia. Sekretariat ASOMPS VIII, c/o Department of Chemistry, Faculty of Science and Environmental Studies, Universiti Pertanian Malaysia, 43400 UPM Serdang, Selangor Darul Ehsan, Malaysia.

**17-22 July 1994**

**The Future of Tropical Savannas: Managing Resources and Resolving Conflicts.** Townsville, Queensland, Australia. Contact: Joel Brown, CSIRO-Davies, Laboratory, Private Mail Bag, P O Aitkenvale, Queensland, 4814, Australia.

**20-26 August 1994**

**INTECOL's VI International congress of ecology. "Ecological progress to meet the challenge of environmental change".** Manchester, UK. Contact: The Secretary, VI International Congress of Ecology, Department of Environmental Biology, University of Manchester, M13 9PL, UK.

**November/December 1994**

**3<sup>RD</sup> International Course on "Fodder Tree Legumes - Multipurpose Species for Agriculture".** Queensland, Australia. Comprises a six week program of lectures and field inspections examining aspects of *Acacia aneura*, *Leucaena leucocephala* and CSIRO & QDPI research programs. Contact: Fodder Tree Legumes, Course Secretariat, Department of Agriculture, The University of Queensland, St Lucia, Queensland, 4072. International telephone: 61 7 365 2062. International fax: 61 7 365 1188.

**14-19 May 1995**

**IAWQ conference on river basin management.** Kruger National Park. Contact: Dr Ben van Vliet, Watertech, CSIR. Tel (012) 841-2237 or Fax (012) 841-4785.

**23-28 July 1995**

**5th International Rangeland Congress.** Salt Lake City, Utah, USA. Contact: General Secretary, Vth IRC, PO Box 11 637, Salt Lake City, UT, USA 84 147.



**FIRST ANNOUNCEMENT**

**SECOND SYMPOSIUM  
DEVELOPING AREAS BRANCH  
GRASSLAND SOCIETY OF SOUTHERN  
AFRICA**

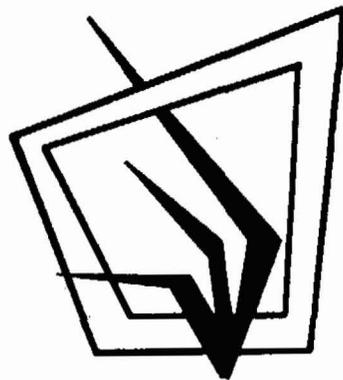
**PEOPLE, RANGELANDS AND DEVELOPMENT**

23 - 35 March 1994

Maseru, Lesotho

For details contact:

Grant Hatch  
Department of Grassland Science  
P.O. Box 375  
Pietermaritzburg 3200  
South Africa  
Tel: 0331-955509  
Fax: 0331-955067



# GRASSLANDS



# FOR OUR WORLD

The most significant and current appraisal of the importance of grasslands and their production systems in the modern world. The ideas and philosophies contained in this volume will endure for decades.

THE XVII INTERNATIONAL GRASSLAND CONGRESS, held in New Zealand and Queensland, Australia in February 1993, brought together 1500 delegates from over 90 countries under the theme "Grasslands for Our World". It provided a forum for reviewing the World's grasslands, their importance to food production for mankind and the maintenance of land and environmental resources, and recent progress and future prospects for developments in productivity and sustainability of grassland systems.

"Grasslands for Our World" brings together in a single volume the keynote and main session invited papers together with precis of the resulting discussions of each session.

The emphasis of the congress was on the technical and socio-economic factors influencing production in both developed and developing countries, with particular attention being paid to problems of production and resource stability in developing countries.

The five keynote addresses by world authorities embraced topic areas of:

- ▶ The World's Terrestrial Ecosystems
- ▶ Grasslands for Our World
- ▶ Grasslands for Sustainable Ecosystems
- ▶ High Technology for Our Grasslands
- ▶ Science and Information for Our Grasslands

Fifty main session topics were each covered by two invited papers, also from leading world authorities, covering contrasting or complementary approaches to developing and developed world regions. The main session topics included:

- |                                |                                   |
|--------------------------------|-----------------------------------|
| ▶ Sustainability and Stability | ▶ Technology Transfer             |
| ▶ Biodiversity                 | ▶ Population Pressures            |
| ▶ Climate Change               | ▶ Farmer (user) Requirements      |
| ▶ Molecular Biology            | ▶ World Trade Issues              |
| ▶ Socio-economics              | ▶ Soil, Plant and Animal Sciences |

The congress format stimulated discussion and the sharing of ideas, experiences and research findings. Each of the 50 discussion sessions was chaired by an authority on the topic. Precise of these discussions are therefore included in the publication together with the invited papers, to provide complete, authoritative statements on each session topic.

*This book is therefore a challenging appraisal of the importance of grasslands and grassland production systems in the modern world. It will also provide unique and invaluable resource material on the current status and future priorities for the planning and resourcing of research and development in pastoral sciences and related interests.*

*As the next 10-20 years will be critical to the future of the World's grasslands and those who depend on them, this publication will for many years to come be obligatory reading for policy makers, technologists, economists, sociologists, and students training in all aspects of grassland sciences.*

The book will be produced in hardcover A4 size with a full colour cover. It is expected to be available for sale from November 1993. We have already had expressions of interest for some 500 copies by organisations whom we expect will commit orders for the same quantity once the book is published.

To assist us with assessing a print run size we would appreciate completion of either the Order form or the Expression of Interest form below.

*Proceeds from the sale of the book will be invested in the New Zealand Grasslands Memorial Trust and the Australian Howard Memorial Trust for progressing research in grassland sciences.*

## ORDER

(Prepayment is required prior to despatch)

Please send me \_\_\_\_\_ copies of *Grasslands for Our World*.

Yes we are likely to order \_\_\_\_\_ copies

Name ..... Address .....

Price: NZ\$200 NZ/Australia (inc GST, packing & postage); US\$100 elsewhere (plus US\$12.00 packing & postage). Bulk discounts available.

I enclose a cheque for NZ\$ \_\_\_\_\_ US\$ \_\_\_\_\_

Please debit my  VISA no ..... exp date ..... Signature .....

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SEND TO: SIR Publishing, PO Box 399, Wellington, New Zealand (phone: +64 4 472 7421, fax: +64 4 473 1841, Email: sirp@rsru.govt.nz)

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