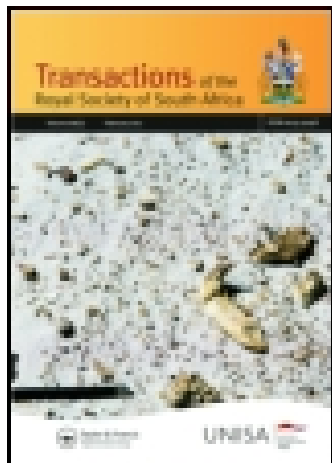


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### Mary Seely: Desert ecologist, torch-bearer for Namibia's sustainable development

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# Mary Seely: Desert ecologist, torch-bearer for Namibia's sustainable development

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In scientific circles, the name Mary Seely is synonymous with Gobabeb and the Namib Desert, where she led the Desert Ecological Research Unit (DERU) from 1970 to 1990 in characterising the Namib and bringing international attention to its uniqueness and remarkable biodiversity. As well as her original focus on ecology and physiology, her name can be found in papers on aspects of the Namib's climate, geomorphology, geology, archaeology, water and more, covering the broad scope of natural resources that support our place in Namibia and on Earth. This formed the background to DERU's metamorphosis after Namibia's independence in 1990 into the Desert Research Foundation of Namibia (DRFN), with a shift in focus to connecting science with community action, and finding applications from the Namib in addressing issues such as land degradation, water resource management and renewable energy.

Mary has always led by example the DRFN motto to 'enhance decision-making for sustainable development', integrating scientific information with problem-solving approaches to the challenges facing communities in Namibia. She recognised the need for integrated and cross-sectoral planning in setting up Forums for Integrated Resource Management (FIRMs), and introduced the principle of Local Level Monitoring to rural communities in her long involvement with Namibia's Programme to Combat Desertification. The river basin management concept was piloted in the Kuiseb River Basin and in the Cuvelai, and is now an established principle in Namibia's Department of Water Affairs. It is significant that an environmental non-governmental organisation (NGO) facilitated these developments, largely as a result of her drive and influence.

Although she might find the term 'capacity building' impersonal, this has always been a focus of Mary's work. Almost all of the younger cohort of managers of natural resources in Namibia, as well as many of the 'grey-beards', have benefited from her training, mentorship and expertise. The 2-month-long Summer Desertification Programme (SDP) that ran over the Christmas holiday period every year from 1992 to 2005 was particularly influential. Between ten and fifteen students and recent graduates, selected from various disciplines at Namibian tertiary institutions, would target a current environmental issue for critical investigation. Field work, interviews, analysis and presentations were standard components of the work, which focused on issues such as illegal fencing in the northern communal areas, water management in various river basins and the value of indigenous fruit trees. The culmination in the Information Weekends at Gobabeb, with innovative ways (such as hip-hop, role-plays and drama) to convey the main messages of the work, will long be remembered by many Namibian politicians,

leaders and foreign ambassadors. A significant number of SDP participants have subsequently moved up to hold senior positions in government departments, NGOs and tertiary institutions.

Another approach to enhance the mainstreaming of environmental policies and legislation was the production by DRFN of 'Updates', a series of single page briefings containing relevant environmental information, that was delivered to both the National Assembly and National Council on a regular basis between 1996 and 2002. Updates were especially aimed at those in decision-making positions in order to disseminate results of various projects, and to provide information required in the formulation of legislation. On a number of occasions, direct quotes from the Updates were used in speeches by Cabinet ministers, and an evaluation indicated that members of both houses found them useful and interesting.

It is largely due to Mary's influence that the things we know about the desert have helped to prove that the Namib has outstanding universal value, justifying the recent listing of the Namib Sand Sea as a World Heritage Site. Mary has been intimately involved in discovering and describing its geological processes, ecological dynamics, rich species diversity, and its aesthetic importance, all of which were key factors in achieving its new status.

Mary is as comfortable with an old San grandmother in the Olumpelengwa village deep in the rural Omusati region as she is with the Secretary-General of the UN at the World Summit on Sustainable Development. In a 10-second sketch of herself by way of an introduction to a community meeting, Mary once described her family as 'all Namibians' and her age as '100+!' She is still some way from that age, and many young Namibians will hope that she continues to share her knowledge, insights and kindness for a long time to come.

## CURRICULUM VITAE OF MARY K. SEELY

M.K. Seely  
Associate and Member Board of Trustees  
Desert Research Foundation of Namibia  
PO Box 20232, Windhoek, Namibia  
and

Associate, Member of Management Committee  
Member of Board of Trustees  
Research Theme Coordinator: Long-Term Research  
Gobabeb Research and Training Centre  
PO Box 953, Walvis Bay, Namibia  
Education: PhD University of California, Davis

### Honorary and professional positions, from 1990

2013	Coordinator of Non-formal Programme for UN Convention to Combat Desertification, Conference of Parties 11, Windhoek, Namibia
2011–2012	Acting Director: Gobabeb Research and Training Centre
2009–2010	Land Degradation portfolio of Scientific and Technical Advisory Panel for GEF
2008–2014	Member of Board: Millennium Challenge Account, Namibia
2007–2014	Adjunct Professor, Polytechnic of Namibia
2007–2010	Member: National Planning Commission, Namibia
2001–2004	Member of President's Vision 2030 Core Team, Namibia
1999–2002	Deputy Chair: Task Force for Namibian Water Resource Management Review
1998–	Member, Board of Trustees, Gobabeb Research and Training Centre
1996	Member: Namibian Drought Task Force
1995–1997	Member: National Planning Commission, Namibia
1994–1997	Honorary Professor, University of Namibia – research and research training
1994	Adjunct Professor, University of New Mexico, USA – research
1992	Advisory Board, Encyclopedia of Environmental Biology, Academic Press.
1991–2012	Director: Environmental Evaluation Associates of Namibia (Pty) Ltd – environmental and environmental education consulting, impact assessments
1990–2006	Executive Director: Desert Research Foundation of Namibia – administration, training and research
1990–	Member, Board of Trustees, Desert Research Foundation of Namibia
1990–	Honorary Professor: School of Animal, Plant and Environmental Sciences, University of the Witwatersrand
–1998	Director: Gobabeb: Desert Ecological Research Unit

### Recent grants, coordinated by Mary K. Seeley

Grants for Environmental Education from, *inter alia*, Sida, Norad, Goldfields Namibia, Rotary Club Windhoek; Research grants from, *inter alia*, BMBF, EU, SAREC; Project grants from, *inter alia*, Sida, BMZ/GTZ, GIZ, Norad, EU, AGRP Japan, Danced & Danida, Heinrich Böll Stiftung, Finnish Embassy, Netherlands Embassy, British High Commission.

### Individual awards

2013	Farouk el Baz Award for Desert Research, Geological Society of America
2011	Honorary Coastodian, Nacoma
2008	Conservationist of the Decade, Namibia Nature Foundation (shared award with Chief Maule)
2004	DSc Honoris causa, University of the Free State
1997	Gold Medal, Zoological Society of Southern Africa
1994	DSc Honoris causa, University of Natal

### Major professional activities

- Referee for: *inter alia*: *Cimbebasia, Namibia*; *Journal of African Zoology*; *Journal of Arid Environments*; *Journal of Environmental Management*; *Madoqua, Namibia*; *Mitigation and Adaptation of Strategies for Global Change*; *National Geographic Society*; *PLoS One*; *South African Journal of Science*; *South African Journal of Zoology*.

- During 45 years of research and training in ecology and environmental science, co-supervised over 50 MSc and PhD degrees in arid zone ecology and environmental topics.
- Organised and contributed to training programmes for University of Namibia, Polytechnic of Namibia, four Colleges of Education of Namibia and varied international educational groups.
- Published over 160 papers and organised and/or contributed to over 20 books.

1996–2004	Member of Steering Committee, <i>inter alia</i> , for: Enviroteach project (Ministry of Basic Education and Culture; Legal and Environmental Awareness Project (with Legal Assistance Centre); Regional Water Books for seven water regions in Namibia (Department of Water Affairs); Department of Water Affairs publications committee (DWA); Desertification programme Phases 1, 2 & 3 (Ministry of Environment and Tourism); Namibia's Global Climate Change report (Ministry of Environment and Tourism); Hoanib River Catchment project (Ministry of Agriculture, Water and Rural Development); NetWise project (Southern African Development Conference (SADC)); Biomass energy conservation Project (Ministry of Mines and Energy); Supporting Environmental Education in Namibia (Ministry of Basic Education, Sport and Culture); Environmental Learning and Action in the Kuiseb; SADC-DRFN Desertification Interact; Renewable Energy and Energy Efficiency Capacity Building Project (Ministry of Mines and Energy).
1992/93–2004/05 and 2010/11–	Organiser: Summer Research Training Programme for students from University of Namibia, Polytechnic of Namibia
1990–2006	Overall programme coordination for over 50 projects of the Desert Research Foundation of Namibia. Overall professional coordination for over 80 environmental assessments and consultancies for Environmental Evaluation Associates of Namibia (Pty) Ltd.
1990–2003	Organiser or Co-organiser, Episodic Events workshop, Windhoek; Environmental Impacts of Prospecting and Mining in the Namib workshop and field excursion for Geological Society of Namibia, Windhoek; National Workshop: Desertification in Namibia, Windhoek; Desertification Day for western SADC, Waterberg; International conference process – Alternative ways to combat desertification.

### MARY K. SEELY PUBLICATIONS (2008 onwards)

#### Peer-reviewed papers

- AKHTAR-SCHUSTER, M., THOMAS, R., STRINGER, L.C., CHASEK, P. & SEELY, M. 2011. Improving the enabling environment to combat land degradation: institutional, financial, legal and science-policy challenges and solutions. *Land Degradation & Development* **22**(2): 299–312.
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- BESLER, H., LANCASTER, N., BRISTOW, C., HENSCHEL, J., LIVINGSTONE, I., SEELY, M. & WHITE, K. 2013. Helga's Dune: 40 years of

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- REED, M.S., BUENEMANN, M., ATLHOPHENG, J., AKHTAR-SCHUSTER, M., BACHMANN, F., BASTIN, G., BIGAS, H., CHANDA, R., DOUGILL, A.J., ESSAHLI, W., EVELY, A.C., FLESKENS, L., GEESON, N., GLASS, J.H., HESSEL, R., HOLDEN, J., IORIS, A. A.R., KRUGER, B., LINIGER, H.P., MPHINYANE, W., NAINGGOLAN, D., PERKINS, J., RAYMOND, C.M., RITSEMA, C.J., SCHWILCH, G., SEBEGO, R., SEELY, M., STRINGER, L.C., THOMAS, R., TWOMLOW, S. & VERZANDVOORT, S. 2011. Cross-scale monitoring and assessment of land degradation and sustainable land management: a methodological framework for knowledge management. *Land Degradation & Development* **22**(2): 261–271.
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- SEELY, M. & PALLETT, J. 2008. *Namib: Secrets of a desert uncovered*. Namibia, Venture Publications.

#### Unpublished environmental reports

- Over 80 unpublished environmental reports have been prepared by Environmental Evaluation Associates of Namibia (Pty) Ltd, of which Dr Seely is a Director and the Projects Coordinator. The following are some of the more consequential of recent reports.
- JOINT VENTURE 2011. First Application of Performance Support Team Approach supporting Local Authorities to improve Water Supply and Sanitation Management. Kalkrand, Hardap Region.
- JOINT VENTURE CONSORTIUM 2010. Integrated Water Resources Management Plan for Namibia (overall contributor and lead author of Theme 8: National Water

Development Strategy and Action Plan). Windhoek, Ministry of Agriculture, Water and Forestry.

- PALLET, J. & SEELY, M. 2010. Cumulative effects analysis – biodiversity. Tarr, P. (Ed.) for BGR. Contribution to the Strategic Environmental Assessment of the Central Namib Uranium Rush. Windhoek, Ministry of Mines and Energy.
- SEELY, M.K. (contributor) 2008. Water resources management plan for the Kuiseb Basin. Werner, W. (Ed.) on behalf of Kuiseb Basin Management Committee.
- SEELY, M.K. and others 2008. Revision of the Water Supply and Sanitation Sector Policy. For Ministry of Agriculture, Water and Forestry.
- SEELY, M. & HEYNS, P. 2008. Rapid Assessment of Water Supply and Sanitation in Namibia. For African Development Bank.

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- AMPUTU, V., EKANDJO, B.N., ILENDE, E., KAOTI, J., KAPIYE, L., KARISEB, K.J.D., LUKUBWE, S.M., NYATORO, T.D., SHIDOLO, E., ULBRICH, R. & UUGWANGA, M.N. 2014. Water Sources, Wastewater and Solid Waste Management in the Greater Sossusvlei Namib Landscape, Namibia. DRFN and Gobabeb, Summer Desertification Programme.
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- AUALA, A., EGUMBO, H., HANGO, J., ILEKA, T., KARUMENDU, T., LISWANISO, B., MTUKU, M., SHIFUGULA, H. & SIBEYA, C. 2013. A tale of two rivers: Tree deaths in the Swakop and Kuiseb Rivers. DRFN and Gobabeb, Summer Desertification Programme.
- Abstracts, popular articles, short reports and conference proceedings**
- GOUDIE, A. & SEELY, M. 2011. World Heritage Desert Landscapes, Gland, Switzerland: IUCN. 44 pp.
- MATAMBO, S.T. & SEELY, M. 2011. Namibia: Combating Desertification with Tools for Local-Level Decision Making. World Resources Report, Washington, DC. 18 pp.
- MET (contributor) 2009. National Programmes to Combat Desertification and Promote Sustainable Land Management: the Namibian experience. MET, Namibia. 8 pp.
- NIEMEIJER, D. & SEELY, M. (CO-CHAIRS) 2009. Working Group 4: Knowledge Management. Soils, Society and Global Change. Proceedings of the International Forum Celebrating the Centenary of Conservation and Restoration of Soil and Vegetation in Iceland, 31 August–4 September 2007, Selfoss, Iceland. pp. 182–186.
- SEELY, M. 2008. A man worth listening to – Piet Heyns. Conservation and the Environment in Namibia, 2008/9. p. 27.
- SEELY, M. 2008. A name revered in inner conservation circles – Lars Karlsson. Conservation and the Environment in Namibia, 2008/9. p. 15.
- SEELY, M. 2008. Namibia's environmental sector 1990–2007: progress and challenges. EnviroPRE participatory review and evaluation of Namibian-Swedish cooperation in the environmental sector. 48 pp.
- SEELY, M. 2009. Livelihoods of poor people in the Orange-Fish River Basin, Namibia. Report produced for the Ephemeral River Basins in Southern Africa (ERB) Project, Desert Research Foundation of Namibia (DRFN), Windhoek.
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