

SOUTH AFRICAN RESEARCH CHAIRS INITIATIVE

PHASE 1

UNIVERSITY PROPOSAL APPLICATION FORM

Closing date: 24 August 2011

Objective of this proposal

The purpose of **Phase 1** of the SARChI application and awarding process is to award Research Chairs to universities that demonstrate a readiness and commitment to host and support the Research Chairs. While it is preferable to have an identified candidate for the Research Chair at this stage, it is however, not mandatory.

Assessment of the Phase 1 proposal will not focus on the detailed scientific programme, but rather on the:

- alignment of the proposed Research Chair with the identified directed or thematic research area and, the university research strategy;
- research strengths, capabilities and competencies of the university; and
- commitment of the institution to provide an enabling environment to ensure the success of the Research Chair.

Instructions

- Each university must submit **one set** of the following documentation to be considered as a host university for Research Chairs:
 - University Research Strategy;

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- Programme and Qualification Mix approved by the Department of Higher Education and Training;
 - Details of current full-time academic and research staff, **in the disciplines in which the university proposes to host Research Chair(s)**; and
 - Statistics on research outputs and postgraduate students trained and graduated for the **in the disciplines in which the university proposes to host Research Chair(s)**.
Provide information for up to five years covering the period from 2006 to 2010.

Templates for compiling the data on academic and research staff, research outputs and on masters and doctoral students trained and graduated is provided in Appendix A to Appendix D of the Application Form.

- A separate application (maximum of 20 A4 pages, Arial font, 11 point and 1.5 spacing) must be completed for each SARChI Chair applied for and must address the selection criteria listed in **Section 2.3 in the Guide**.
- Responses must be typed in the appropriate spaces in the application form. The examples or commentary provided in these spaces are for guidance purposes only and should be deleted from the completed application.
- Follow the space allocation where possible and provide concise but complete information to enable a fair assessment of the proposal.
- The signatory of the proposal(s) shall be the University Deputy Vice Chancellor responsible for research. The completed application form(s) must be submitted to the NRF in two formats:
 - An electronic format, preferably as a PDF file, to Ms Tshepiso Masemola at tshepiso.masemola@nrf.ac.za; and
 - A **signed hard copy**, to be mailed to SARChI, c/o Ms Tshepiso Masemola, PO Box 2600, Pretoria, 0001 or hand delivered to the NRF Offices, Brummeria.
- All applications must be submitted by 24 August 2011 to be accepted by the NRF.

NRF contact persons

Dr D Pillay, Vice President and MD: Research and Innovation Support and Advancement at gansen.pillay@nrf.ac.za or 012-481 4286

Dr Romilla Maharaj, Executive Director: Human and Institutional Capacity Development (phone – 012-481 4087; email - romilla@nrf.ac.za)

Dr Bernard Nthambeleni, Executive Director: Grants Management and Systems Administration (phone – 012-481 4182; email - bernard@nrf.ac.za)

Dr Linda Mtwisha, Programme Director (phone – 012-481 4014; email - linda.mtwisha@nrf.ac.za)

Mr Sibongile Sowazi, Grant Director: (phone – 012-481 4160; email - sibongile@nrf.ac.za)

Checklist for Institutional documentation

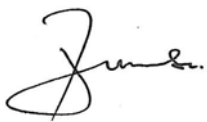
Institutional documents submitted	
University Research Strategy;	X
Programme and Qualification Mix approved by the Department of Higher Education and Training;	X
Details of current academic and research staff, in the disciplines in which the university proposes to host Research Chairs; and	X
Statistics on research outputs for the period 2006 to 2010, in disciplines in which the university proposes to host Research Chairs	X
Statistics on postgraduate students trained and graduated for the period 2006 to 2010, in disciplines in which the university proposes to host Research Chairs	X

Details of proposals submitted for hosting of Research Chairs

Name of proposed Research Chair	Land Use Planning and Management

NB: There are no limitations to the number of proposals that may be submitted by each university.

Approval by Deputy Vice Chancellor responsible for research

Name:	Prof NM Ijumba	
Designation:	Deputy Vice Chancellor: Research	
Institution:	University of KwaZulu-Natal	
Signature:	Date	
		02 September 2011

Please complete all sections of this form for each Research Chair that the university proposes to host.

1 University Background

1.1 Host University

Name of host university	University of KwaZulu-Natal (UKZN)
Name of co-host/s (where applicable)	The co-host must be another University, a Science Council, a National Research Facility or an Academic Health Complex.
Physical location of Chair	School of Agricultural, Earth and Environmental Sciences, Pietermaritzburg Campus, UKZN

1.2 Alignment of the proposed Research Chair with the university Research Strategy and the identified directed or thematic research areas

Briefly describe the:

Alignment of the proposed Research Chair with the research strategy of the host university and the co-host where applicable.

Alignment of the proposed Research Chair with relevant national strategies e.g. the National Research and Development Strategy.

Alignment with an identified directed or thematic research area.

Relevance of the proposed research area.

(Suggested maximum length of four A4 pages, Arial font, 11 point and 1.5 spacing)

The new University of KwaZulu-Natal has adopted a Vision which ties it to a new 'postcolonial' knowledge project. The Vision is articulated as follows: *UKZN is the premier institution of African Scholarship*. An interpretation of this is that, in addition to globally-linked research enterprises, UKZN assumes the responsibility to engage in research and knowledge production relating to the context within which it exists. Across these it will encourage and support research activities across the research spectrum – from basic fundamental research to applied research to product-related research and in particular to foster research that ties these together.

UKZN has as one of its objectives the development of strategic research partnerships with the public sector, industry and the broader community. The logic of this is first of all to address the question of the optimisation of research capacity in the conditions that pertain in SA. The second reason is a direct and strategic response to the emergence of the 'knowledge economy' (and more generally the 'knowledge society'). One of the characteristics of this era has been the very substantial diffusion of research and knowledge production processes into social sectors other than universities. These strategic research partnerships open the way for new and innovative research enterprises which often have orientations which are quite different from those which are determined in the context of academic imperatives.

This chair will fall into the University Strategic Research Thrust of Water, environment and biodiversity and the thrust of agriculture and food security. The College of Agriculture, Engineering and Science, into which this chair will fall, has identified the need to increase the relevance of our research and training, and as such has engaged with Municipal, Provincial, and National Government, as well as Research Councils, Conservation Agencies, and private entities to build research and training targeted towards the needs and outcomes of the broader

community. In addition, the College has identified a strategy of moving beyond traditional disciplinary work, and creating new areas of investigation and training shaped by the emerging needs of our complex environment. The College has identified SARCHI Chairs and Research Professorships as a key element to achieving this strategy. These are being positioned as inter- or trans-disciplinary catalysts that will do science in a new way, and draw together a range of disciplines that each contribute to solving a problem.

Besides producing knowledge and understanding in a new way, and training students that are geared to solving current and emerging problems, the College strategy also focuses on transforming and developing our own Human capacity more generally. As such, SARCHi Chairs and Research Professorships are being positioned to provide mentorship and training to the new cohort of academics that UKZN is employing. UKZN now has the most demographically representative staff and student body of any of the major research Universities. More particularly, in the Biodiversity Sector, into which this chair will fall, UKZN is recognised as producing the most non-white PhD graduates.

Global climate change and its impact on land cover/use has become one of the most critical environmental concerns both to the scientific community and to society at large. Climate change due to greenhouse gas emissions is expected to increase temperature, alter precipitation patterns and soil moisture budgets, increase the frequency and intensity of hurricanes, and induce changes in regional and local sea levels. In Southern Africa, rainfall patterns show a declining trend of summer rainfall (about 20%) from 1950-1999 and high frequency of droughts are predicted to intensify. A number of studies have concluded that the agricultural sector, particularly sugar cane and plantation forestry production will be one of the sectors most vulnerable to climate change and its variability in Southern Africa. This is likely to harm developing economies that generate the major portion of their GDP from such landuse sectors. Another key element to the Green Economy is harnessing our natural resource potential, both in terms of consumptive and non-consumptive use, but also in terms of the ecosystem services that natural land-systems provide. The chair will focus on landuse management in the light of global change. Lastly, urbanisation, and other aspects of land-transformation through development, is greatly affecting the sustainable resilience of the natural systems in which these land-uses are embedded. We propose that the Chair will study Environmental Systems and the social and economic context into which they are placed, i.e. the socio-ecological systems in which land-use

planning and management is occurring. We hold that such an approach needs to be integrated, and holistic, and truly positions the work of the Chair into a new domain, i.e. systems understanding, which will draw together a wide range of disciplines in which UKZN is traditionally strong. Understanding natural systems, and then the alternative land-uses through transformation, of agriculture and urbanisation, in the context of global change, and the sustainable development imperatives is key to unlocking the potential of the green economy, rural development, and sustainable cities.

The activities of the chair are therefore directly aligned with the DST Global Grand Challenge, spread across three areas of knowledge Challenge, B: Reducing the human footprint, C: Adapting the way we live, and D: Innovation for sustainability. Within these, the specific research themes are: B 2. Conserving biodiversity and ecosystem services; C 2. Planning for sustainable urban development in a South African context; C 4. Food and fibre security for South Africa; D 2. Resilience and capability; D 3. Options for greening the developmental state. In terms of the Medium-term strategic framework and 12 outcomes, the work of the Chair will directly address the following prioritised outcomes in order of contribution:

- Protection and enhancement of environmental assets and natural resources;
- Vibrant, equitable, sustainable rural communities and food security for all;
- Sustainable human settlements and improved quality of households;

This proposal will fall into the SARCHI Call area: Priority Research Areas: Grand Challenges

Landuse management has been identified as a priority area in the College of Agriculture, Engineering and Science of the University to achieve this mission. The chair fits into the Landuse planning, land management and sustainable development College strategic thrust. This is a key area for drawing the Life Sciences disciplines together in a new way that will unlock a step-change in our research and human capital development capacity. The chair also forms a hub for interaction across the private and public research institutions. Synergy between government, councils, industry and UKZN will be enhanced through improving productivity as well as making the research knowledge base applicable to conservation and economic development. Currently, UKZN has a strong history of partnership with industry (SAPPI, MONDI forests) and other research institutions such as The **Institute for Commercial Forestry Research (ICFR)**, The **South African Sugarcane Research Institute (SASRI)**, CSIR Forest and Forest Products Unit, and CSIR Ecosystems Earth Observation, and Natural Resources Unit. The College has

recently signed an MOA with Ethekewini Municipality to partner in environmental research to underpin development decisions, particularly in the context of climate change. The College also has strong links and research with the civil engineering arm of Ethekewini, for whom understanding ecosystem services is essential. UKZN has signed an MOU with the Provincial Department of Agriculture, Environmental Affairs, and Rural Development to partner in problem solving, and directed Human Capital development. UKZN is currently finalising an MOU with the South African National Biodiversity Institute, who are mandated with planning and monitoring of our natural biodiversity resources and the ecosystem services they provide.

Envisaged outcomes of the work of the Chair:

1. An understanding of the factors influencing resilience of natural systems, particularly the savanna, grassland, forest, thicket mosaic of eastern and northern South Africa. This will be in the context of different land-use options, including natural systems, agricultural systems, and urbanising systems, all of which occur adjacent to each other, creating an integrated matrix. The focus will be on the savanna and grassland habitats; on sugarcane and forestry large-scale commercial agriculture in eastern South Africa; and for the urban context, especially on Ethekewini. These factors will be understood in the context of unpredictability, variability of rainfall, soil and water dynamics, mosaic biomes at a local level, hyper-biodiversity, mixed 1st – 3rd world contexts under rapid development), and how to monitor and assess these on an ongoing basis.
2. An understanding of threats to resilience of systems and to the ecosystem services they offer, and how to monitor and assess these on an ongoing basis.
3. A local/regional model of conservation planning in the context of hyper-biodiversity and biome mosaics at the local scale, that is scalable at multiple levels, and for which we understand the constraints on scalability.
4. An Environmental Management plan for Ethekewini Municipality that incorporates ecosystem services and natural system resilience into a sustainable development plan incorporating trajectories of global (climate) change.
5. A decision-making system for sustainable economic development within Ethekewini Municipality, and which is transferable and scalable to other systems, which incorporates the value of, and risks to, natural systems.
6. A planning framework for commercial agricultural development (sugarcane and forestry; including potential bioenergy production), consumptive and non-consumptive use of natural systems, and small-scale community farming, using a matrix approach, within our planning

domain

7. Development of Human Capital and institutional capacity across a range of education, research and advisory bodies, which are mandated with responsibilities incorporated within the domain of this work. This includes development of staff, and training of a large number of post-graduate students through the programme.

1.3 University Research Strength and Competencies

Briefly describe your university research strengths, capabilities and competencies and the alignment of the proposed Research Chair with that of existing research activities and capacity. Please focus on the areas that are relevant to the proposed Research Chair. Provide the same information for the co-host, where necessary.

(Suggested maximum length of four A4 pages, Arial font, 11 point and 1.5 spacing)

The Life Sciences at UKZN are characterised by a unique attribute, a strong tradition of Agricultural research that covers all of the agricultural disciplines, including Agricultural Economics and Food Security. Furthermore, Agriculture at UKZN is firmly embedded into the Science Disciplines, having been part of the Science Faculty since 1999. From 2012, Agriculture will sit within the same School as Environmental Sciences, which means that this Chair will have a unique academic context in terms of its placement. The Chair will sit in the strongest College in the University, on Pietermaritzburg Campus, which has a long tradition of strong research in the underlying disciplines. In addition, UKZN has a tradition of taking a systems approach to socio-ecological systems, with the Establishment of the CEAD (Centre for Environmental and Agricultural Development in 1996). This served as a virtual home for multidisciplinary projects in this area, and a large number of students, many of whom are practitioners, have graduated from its Master of Environmental Development Coursework Masters Programme, a programme unique to UKZN. The disciplines which will contribute to this the activities of this chair include Ecology, Systematics, Biodiversity Science, Conservation Biology, Grassland Science, Entomology, Zoology, Botany, Geography, Remote Sensing and GIS, Soil Science, Hydrology, Crop Science, Agricultural Economics, Food Security, Rural Resource Management and Agricultural Meteorology. Together these constitute the strongest Research output at UKZN. In addition, the work of the Chair will draw on disciplines outside the College, particularly in Environmental Development, which houses the SARCHI Chair in Development Economics of Julian May. This chair will also sit nicely with the SARCHI Chair of Steve Johnson, who works on Pollination Biology, and important ecosystem services, especially associated with agriculture and fragmented systems.

There are a number of large research programmes which will contribute to the work of the proposed

chair, including those of David Ward, Rob Slotow, Mike Perrin, Colleen Downs, Steve Johnson, Kevin Kirkman, Roland Schultze, Graham Jewitt, Mike Savage, Gerald Ortmann, Onismo Mutanga. These include some of UKZN's most prolific researchers, including three of the top ten publishers in 2010, and a further three in the top 30. There are also a number of other developing researchers who will contribute from across the disciplines.

The PMB campus is also home to the ICFR, the Forestry growers industry research institute, who will be contributing to aspects of the work of this chair, who are in an adjacent building on campus.

The publications and dissertation titles below highlight the wide range of research undertaken by staff and students of UKZN relevant to the foci i.e. Land use planning and management, expressed above. Ranging from studies at the plot level, through to studies at local, provincial and national scales (i.e. laboratory to landscape scale), these are also applied at the continental scale, meeting the vision of UKZN to contribute to African development and are achieved through a wide range of interdisciplinary partnerships with UKZN colleagues, other local and national scientists as well as international collaborators from Africa and beyond.

The studies undertaken by this research grouping cross a range of spatial and temporal scales, the work of the research team effectively covers the full interconnected nature of biodiversity sensu Noss (1996) i.e. structural, compositional and functional biodiversity at different spatial and temporal scales. This ranges through studies of individual (and new) plant and animal species, their role in the broader landscape, and in turn, the influence of the landscape on these (and vice versa) and the ecosystems from which the goods and services upon which society depends are derived and the detailed understanding of these interactions and their limits which are fundamental to achieving a green economy. Researchers active in this group have published work on the likely impacts of climate change on water resources, plant and crop diseases, shifts in growing patterns of agriculture and forestry as well the development of tools and methods to assess these. Through various students and collaborators, these studies have been extended to the assessment of social and economic benefits and risks of these aspects of land use planning and management for different scenarios including the shift to new agricultural production systems including different soil-water management practices as well different types of crops, including bioenergy feedstocks.

The application of this understanding through modelling, GIS and remote sensing and other software and related socio-economic systems has already provided a number of logical and practical approaches to land use planning management, including formal conservation areas, provincial and national level conservation planning, integrated urban development plans and regional recommendations for adapting to climate change, several of which have been adopted in practice.

Students who have graduated from this group are active in land use planning and management across academia, consulting companies and national and international NGOS, government and international development organisations.

1.4 Organisational Structure

Describe the reporting lines and organisational position of the Chair. Note that the accountability for the Research Chair must reside with the Deputy Vice Chancellor responsible for research.

(Suggested maximum length of one A4 page, Arial font, 11 point and 1.5 spacing)

The Chair of Land-use Planning and Management will be housed within the newly formed School of Agricultural, Earth & Environmental Sciences. This School is the result of the merger of the Schools of Agricultural Sciences and Agribusiness, The School of Environmental Sciences, the School of Geological Sciences, and the Discipline of Hydrology from the School of Bioresources Engineering and Environmental Hydrology. The unique combination of disciplines into a single management structure provides a sound framework for enabling the multidisciplinary approach necessary for such a chair to successfully achieve the outcomes. In addition, the School of Life Sciences, which incorporates the areas of Ecology, Systematics, Biodiversity Science, Conservation Biology is located in the adjacent building, facilitating engagement with those disciplines. Although this chair could really fall into either of these schools, the placement into the School of Agricultural, Earth and Environmental Sciences provides a unique linkage to the Agricultural Disciplines, including Agricultural Economics and Food Security, both of which are very strong at UKZN.

The School will be lead by a Dean and Head of School, who will be the direct line manager of the Chair. The Dean, in turn, is line-managed at the Executive level by the DvC and head of College, Agriculture, Engineering & Science. Both the DVC and Head of College, and DvC Research, will represent the Chair at the level of the executive leadership of the institution.

The Research Office is an institutional resource led by the DVC Research and deals with all research related matters and includes the grants and contracts office. The Research Office will be the interface between the Research Chair and NRF. The Chair will report against the outputs and outcomes agreed with the NRF, directly to the DvC Research, who will then account for these to the NRF.

2 University support of the proposed Research Chair

2.1 Academic Support

How will the host university support the Research Chair using non-financial means? Consider integration with other research initiatives, library, linkages, etc.

(Suggested maximum length of one A4 page, Arial font, 11 point and 1.5 spacing)

UKZN has an excellent library system, with over 4% of the operating budget being strategically allocated to the Library each year. There is a dedicated Life Sciences library on the Carbis Road Campus in Pietermaritzburg, which is in the building adjacent to the potential home of the Chair.

The proposed chair will lead a multi-or trans disciplinary programme which is seen as both enabling and a catalyst in this area. A new approach will emerge, which will draw leading researchers from within UKZN and our partners into solving problems innovatively. As part of the programme we envisage creating the next generation of researchers in disciplines that are traditionally strong at UKZN. The interdisciplinary nature of this programme lends it to linkages among research groups and institutions. Given our relationships with external parties, we envisage the Chair building stronger links with these, and of appointing staff in partner institutions as honorary or fractional (joint) staff. We envisage creating a Centre of Excellence around this chair, and investing the resources necessary to achieve this.

The Research Office provides support to the Chair through its

- Grants and Contracts Office
- The research incentive funding programme (further discussed in Section 2.3)
- The Expensive Capital Equipment programme (further discussed in Section 2.3)
- The funding programme for postdoctoral fellows
- The capacity to establish and manage new linkages and strategic partnerships.

2.2 Infrastructure

How will the host university support the Research Chair with infrastructure? Consider provision of office and laboratory space for the Chair and her/his research team, office furniture, IT facilities, access to necessary research equipment and infrastructure, etc.

(Suggested maximum length of two A4 pages, Arial font, 11 point and 1.5 spacing)

In hosting the Chair, the School will provide the following support:

- An office, a computer and access to the internet
- Administrative support in terms of budgeting, human resource management and the management of postgraduate students and postdoctoral fellows
- Provision of suitable laboratories and other physical research infrastructure and research technical support
- Other forms of support, for which the need may arise.

There is wired and wireless access on PMB campus, and UKZN is currently rolling out wireless access in all student residences. UKZN has broadband access to the Higher Education Backbone.

The School has its own dedicated Undergraduate and Postgraduate LANs, which are designed for GIS/remote sensing research and teaching. A new, larger dedicated GIS lan complex of up to 200 computers is currently under planning for opening on the Life Sciences Campus in 2012. UKZN supports site license access to the major GIS and statistical analysis programmes, and has purchased license sets for the high-end GIS/Remote Sensing and specialist Analysis programmes.

The various disciplines associated with the Chair have state-of-the-art research facilities including access to 4x4 field vehicles.

2.3 Financial Support

How will the host university support the Research Chair financially, both directly and indirectly? Consider provision for administrative support, technical support or necessary research equipment and infrastructure.

(suggested maximum length of one A4 page, Arial font, 11 point and 1.5 spacing)

The university has a research outputs reward scheme, where funds for research purposes are paid out against recognised research outputs, such as graduated students, SAPSE recognised journal articles, refereed conference outputs, books etc. Since this Chair is expected to be very productive, an annual income of around R150 000 to R 200 000 could be expected.

The University will also pay the salary of the support personal and academics in the various disciplines who will contribute to the activities of the Chair. The University also contributes to the costs of operating and maintaining the equipment used for the projects.

The University has an expensive capital equipment purchasing process, which facilitates the purchase

of needed capital equipment. The University also supports the NRF's RISP scheme, for the purchase of very expensive equipment. The University also on occasion buys essential equipment through other schemes which become available from time to time.

The University also has two funding programs for post-doctoral fellows: a short-term fellowship (up to 6 months aimed at paper writing) and long-term fellowships targeted at innovative research. In addition to the funding for Post-Doctoral Fellowships from the Research Office, which is an annual open competition, the College allocates funding for Post-Doctoral Fellowships from its own resources. These can be filled at any time of the year, and the College will make Post-Doctoral fellowships available to the Chair if its own resources are not sufficient. In addition, the College will provide additional studentships if those provided by the NRF are exhausted. If the activities of the chair grow sufficiently large to warrant it, additional research capacity may be supported by the College through a Contract Research position.

The College has advertised Research Professors and Fractional Research Professors, and makes joint appointments with industry and council partners. The College envisages making appointments from these in the area of the Chair. This will serve to create additional critical mass for this complex, multidisciplinary area of research. This area has been identified as key for major investment and strategic growth by the College.

2.4 Leadership and Management Support

How will the host university provide the necessary leadership and management support to the Research Chair to ensure effective functioning of the Chair?

(suggested maximum length of one A4 page, Arial font, 11 point and 1.5 spacing)

In addition to the requirements laid down by the NRF, UKZN proposes further internal monitoring processes.

Initially, UKZN will develop a set of appropriate criteria in line with those of the NRF for the monitoring of the progress of the work of the Research Chair. For the first phase, these would include:

- The Chair's actions in terms of establishing the Research Group
- The research output in terms of the publication of peer-reviewed articles in high quality journals, which should be on an upward trajectory, perhaps using journal Impact

Factors as guide.

- The provision of research leadership that generates a long-term vision for the research, and includes new directions of investigation, new collaborations and the generation of additional funding
- The attraction, retention and throughput of high quality postgraduate students and postdoctoral fellows
- The leadership of the Chair in relation to supporting administrative structures and research assistants


The College is also appointing a College Dean of Research, who will be responsible for driving the College Research Strategy. This Dean will engage closely with all SARCHI Chairs to ensure that their outputs and outcomes are being met, and to facilitate unlocking any barriers they face. This Dean will also promote the College strategy of developing interdisciplinary areas of research, and facilitating linkages among academics in different disciplines. The College Dean of Research is a member of the College Management Team, and also represents College interests, including those of our SARCHI Chairs from within the College, on the University Research Strategy Group, which is chaired by the DvC Research. There is therefore a comprehensive leadership support framework for research activities such as by the Chairs, at both Dean and DvC levels.

The Quality Promotion and Assurance Unit (QPA) of the University will hold annual focus groups with all key players (Chair, postgraduates, administrative assistance, related Schools) in each particular research enterprise to obtain feedback on implementation and to provide an early warning system to the Research Office of any possible difficulties being experienced, such that the University is in a position to assist and rectify these timeously.

The QPA can provide the institutional infrastructure to carry out the NRF's 5-yearly in-depth peer evaluation if so required.

3. Approval by University Research Management

All proposals to host Research Chairs must be approved by, and submitted under signature of the University Deputy Vice-Chancellor responsible for research.

Name:	Prof NM Ijumba	
Designation:	Deputy Vice Chancellor: Research	
Institution:	University of KwaZulu-Natal	
Signature:		Date
		02 September 2011

Template for providing details of current academic and research staff for each discipline in which the university proposes to host a Research Chair

Name	Sex	Race	Rank	Highest qualification	Emerging researcher (Yes/No)	Established researcher (Yes/No)	Permanent/Contract appointment	Appointment term	
								From	To
Academic Staff									
David M. Ward	M	W	Professor	PhD	No	Yes	Permanent	01.10.2006	Present
Savage MJ	M	W	Senior Professor	DScAgric	N	Yes	Yes	01.02.1977	Present
Jewitt, GPW	Male	White	Professor	PhD		Yes	Permanent	01.10.1998	Present
R. Schulze	M	W	P	PhD	N	Y	Emeritus Professor	01.01.2008	Present
J. Smithers	M	W	P	PhD	N	Y	Permanent	01.01.1989	Present
Senzanje, AS	Male	Black	Snr Lecturer	PhD		Yes	Permanent	01.07.2007	Present
Warburton, ML	Female	White	Lecturer	Msc	Yes	N	Permanent	01.04.2006	Present
Chetty, KT	Female	White	Lecturer	Msc	Yes	N	Permanent	01.11.2002	Present
Stuart-Hill, SI	Male	White	Lecturer	Msc	Yes	N	Permanent	01.04.2008	Present
Horan, MJCH	Male	White	Senior Lecturer	BSC Honours	Y	N	Permanent	01.04.2008	Present
O. Mutanga	M	A	AP	PhD		Yes	Permanent	01.01.2005	Present
F. Ahmed	M	A	AP	PhD		Yes	Permanent	01.02.2006	15.08.2011
J. Odindi	M	A	L	PhD	Yes		Permanent	01.07.2011	Present
M. Gebreslasie	M	A	L	PhD	Yes		Permanent	01.07.2011	Present
R. Slotow	M	W	P	PhD	N	Y	Permanent	01.01.1996	Present
C. Downs	F	W	P	PhD	N	Y	Permanent	01.07.1994	Present
S. Johnson	M	W	P	PhD	N	Y	Permanent	01.01.1997	Present
G. Ortmann	M	W	P	PhD	N	Y	Permanent	01.10.1979	Present
T. Hill	M	W	P	PhD	N	Y	Permanent	01.03.1999	Present
A. Shrader	F	W	L	PhD	Y	N	Permanent	01.02.2008	Present
T. Everson	M	W	SL	PhD	N	Y	Permanent	01.08.1996	Present

Research Staff									
M. Hamer			Honorary Professor				Honorary Ass Prof	01.01.2009	31.12.2011
M. Perrin	M	W	Honorary Professor	PhD	N	Y	Emeritus Professor	01.08.2010	
Dr. Kyle Tomlinson	M	White	Post-doc	PhD	Yes	No	Contract	**01/07/2011	01/07/2013
Dr. Zivanai Tsvuura	M	Black	Post-doc	PhD	Yes	No	Contract	**01/07/2011	01/07/2013
Dr. Jack Ratjindua Kambatuku	M	Black	Post-doc	PhD	Yes	No	Contract	**01/07/2011	01/07/2013
Dr. Megan Griffiths	F	White	Post-doc	PhD	Yes	No	Contract	**01/01/2010	31/12/2011
Riddell, E	Male	White	Post Doc	PhD	Yes		Contract	01.03.2011	31.12.2011
Mengistu, M	Male	White	Post Doc	PhD	Yes		Contact	01.07.2010	31/12/2011
Kunz, R	Male	White	Research fellow/Lecturer	Msc			Contract	01.11.2008	30/10/2014
Lumsden, TG	Male	White	Research fellow/Lecturer	Msc			Contact	01.03.2000	30/09/2011
Everson, CS	Male	White	Research Professor	PhD		Yes	Contact	**	31/03/2012
Jarmain C	Female	White	Research fellow	PhD	Yes		Contact	**	31/03/2012
Schulze, RE	Male	White	Emeritus Professor	PhD		Yes	Contact	**	30/9/2011
Chaplot V	Male	White	Honorary Professor	PhD		Yes	Contact		20/12/2013
Dave Druce	Male	W	Postdoc	PhD	Yes	N	Contract	**2008	
Abi Vanak	Male	I	Postdoc	PhD	Yes	N	Contract	2011	2012
Maria Thaker	Female	W	Posdoc	PhD	Yes	N	Contract	**2009	2011

APPENDIX B

Template for providing details of research outputs for each discipline in which the university proposes to host a Research Chair. Complete a separate table for each discipline and provide information for up to five (5) years.

Category	2006	2007	2008	2009	2010	Total
Peer reviewed journal articles	41	27	39	44	51	202
Peer reviewed books		1		1		2
Peer reviewed book chapters	6	6	9	17	4	42
Products*			1	1		2
Artifacts						
Patents						

*WRC Publications

Template for providing details of **full-time masters and doctoral students**. Complete a separate table for each discipline and provide information for up to five (5) years.

Category	Number of full-time students					Total
	2006	2007	2008	2009	2010	
Doctoral students						
Continuing	11	19	29	20	15	
New	10	6	1	1	8	
Graduated	5	3	3	3	11	25
Masters students (minimum 50% research component)						
Continuing	11	9	12	14	14	
New	5	6	11	4	7	
Graduated	3	7	3	14	12	39
Masters by coursework						
Continuing				1		
New	1		1			
Graduated	1	1	1		1	4

Template for providing details of **part-time masters and doctoral students**. Complete a separate table for each discipline and provide information for up to five (5) years.

Category	Number of part-time students					Total
	2006	2007	2008	2009	2010	
Doctoral students						
Continuing	1	2	2	4	4	
New			2			
Graduated						
Masters students (minimum 50% research component)						
Continuing						
New						
Graduated						
Masters by coursework						
Continuing						
New						
Graduated						

ADDENDUM TO - Land Use Planning and Management

Name	H	2006	2007	2008	2009	2010
D Ward	17	11	8	7	3	8
M Perrin	11	1	1	1	4	2
C Downs	11	2	1	5	10	7
S Johnson	31	1	3	4	9	20
K Kirkman	5	2	3	1	6	8
Schulze	9	2	1	4	2	5
G Ortmann	2	0	0	3	4	3
T Hill	5	2	3	4	0	1
R Schrader	5	4	2	2	0	1
T Everson	3	0	0	0	2	0
M Hamer	9	1	4	0	3	4

2010 CEAD GRADUATED STUDENTS

Name	Qualification	Dissertation/Thesis title
Alford, Judith	MEnvDev	Metadata challenges faced by producers and users of spatial data in South Africa
Cryer Paul	MSc	The implementation of an environmental monitoring and management system for the wilderness area of the Hluhluwe-Imfolozi Park
Chimhamhiwa, Dorman	PhD	Improving end to end delivery of land administration business processes through performance measurement and comparison
Hunter Alistair Malcom Scott Mr	MenvDev	A review of the fluvial geomorphology monitoring of the receiving streams of the Mooi-Mgeni river transfer scheme phase 1
Jogiat, Riaz	MenvDev	Assessing the implementation prospects of the Waste Act within the Msunduzi Municipality through Theory U
Louw, Sharon	MenvDev	The effect of the spatial scale of harvesting on woody tree seedling establishment and tree dynamics at Ongoye Forest Reserve
Mbele, Fezeka Faith	MenvDev	Are farmers changing from food production to biofuel production? A case study of the Northern Agricultural region of KwaZulu-Natal
McCosh, Jon Stuart	MenvDev	Towards an understanding of the social learning dynamic in the advancement for organic farming in South Africa
Mnyengeza, Mngweno	MenvDev	Analyzing an orthophoto mapping system using analysis, SWOT and client satisfaction survey: A case study of the Chief Directorate of Surveying and Mapping, Republic of South Africa
Mthimkhulu, Oscar Mpiyani Emmanuel	MenvDev	Understanding the present and historic forest resource use of the Ntabamhlophe Indigenous State Forest by rural communities
Mulonga, Samison, Nzhehengwa	MenvDev	A critical assessment of the Namibian protected area management effectiveness tracking tool
Persendt, Frans Cerel	MenvDev	Drought risk analysis using remote sensing and GIS in the Oshikoto region, Namibia
Pillay, Kavsha	MenvDev	Land use change detection of small scale sugarcane: A case study of Umbumbulu, South Africa
Shange, Muzikayise Blessing	MenvDev	A system based approach to land registration analysis and improvements: A case study of the KwaZulu-Natal Deeds Registration system

List of Postgraduate students who completed their studies in the years 2006 – 2010

Title	Supervisor Surname	Initials	Student Surname	initials	Qual	Title of Thesis	Year Completed				
							2006	2007	2008	2009	2010
PROF	DOWNS	CT	McMaster	MK	PhD	The behavioural thermoregulation and ecophysiology of the Leopard tortoise <i>Geochelone pardalis</i> in the Nama-Karoo					
PROF	DOWNS	CT	Coleman	JC	PhD	Integrated physiology and behaviour of <i>Thallomys nigricauda</i> along an aridity gradient					
PROF	DOWNS	CT	Wimberger	K	PhD	Wildlife rehabilitation in South Africa					
PROF	DOWNS	CT	Tsvuura	Z	PhD	The influence of the monocarpic herb, <i>Isoglossa woodii</i> , on subtropical forest tree dynamics and diversity					
PROF	DOWNS	CT	Wilson	A	PhD	Aspects of the thermal physiology and fruit digestion of Knysna Tauraco corythaix and Purple-crested (<i>Gallirex porphyreolophus</i>) Turacos					
PROF	HILL	TR	Mitchell	CG	PhD	Towards improved corporate social and environmental reporting in South Africa					
PROF	HILL	TR	Hagahmoodi	SO	PhD	An investigation into the design & implementation of a spatial database using Object-orientated approach for multi-purpose planning : the case study of Durban Metro, KwaZulu-Natal, South Africa					
PROF	HILL	TR	Savage	MJ	DSc	Sensible Heat Flux for Estimating Evaporation					
PROF	JOHNSON	SD	Peter	CI	PhD	Pollination, floral deception and evolutionary processes in <i>Eulophia</i> (Orchidaceae)					
PROF	JOHNSON	SD	Horsley	TN	PhD	Overcoming biological barriers to control-pollinated seed production in <i>Eucalyptus</i>					
PROF	JOHNSON	SD	Brown	M	PhD	Nectar preferences of specialist and occasional avian nectarivores, and their role in the evolution of floral traits					
PROF	JOHNSON	SD	Shuttleworth	A	PhD	Ecology and evolution of the specialized <i>Hemipepsis</i> wasp (Hymenoptera: Pompilidae) pollination guild in southern Africa					
PROF	KIRKMAN	KP	Matchett	KJ	PhD	Recovery, resilience and stability of piosphere systems in the Kruger National Park					
PROF	PERRIN	MR	Mahlaba	TA	PhD	The ecology and parasitology of small mammals at Mlawula Nature Reserve, Swaziland.					
PROF	PERRIN	MR	Guissamulo	AT	PhD	Ecological studies of Bottlenose and Humpback dolphins in Maputo Bay, Southern Mozambique					

PROF	PERRIN	MR	Boyes	RS	PhD	Ecology of Meyer's Parrot <i>Poicephalus meyeri</i> in the Okavango Delta, Botswana						
PROF	SCHULZE	RE	Ghile	YB	PhD	Development of a framework for an integrated time-varying agrohydrological forecast system for Southern Africa						
PROF	WARD	DM	Kambatuku	JR	PhD	Ecophysiology of encroaching <i>Acacia mellifera</i> in intra- and inter-specific interactions						
PROF	DOWNS	CT	Bowker	MB	MSc	Conservation of the Great White Pelican (<i>Pelecanus onocratulus</i>) and the Pinkbacked Pelican (<i>Pelecanus rufescens</i>) in south eastern Africa						
PROF	DOWNS	CT	Grey	RV	MSc	Aspects of the conservation of oribi(<i>Ourebia ourebi</i> in KwaZulu-Natal						
PROF	DOWNS	CT	Lindsay	CV	MSc	Altitudinal and seasonal variation in Amethyst sunbirds (<i>Chalcomitra amethystine</i>)						
PROF	DOWNS	CT	Wellmann	AE	MSc	Sleep type, patterns and behaviour in some Southern African Passerine Birds						
PROF	DOWNS	CT	Russell	C	MSc	Effect of land use on the species composition of <i>Anura</i> (frogs, toads and platannas) in North-eastern KwaZulu-Natal						
PROF	EVERSON	TM	Mupenzi	M	MScAg	Evaluation of improved <i>Brachiaria</i> grasses in low rainfall and aluminium toxicity prone areas of Rwanda						
PROF	HAMER	ML	Arnott	WL	MSc	The effect of fire frequency on invertebrate and plant diversity in a Drakensberg grassland habitat						
PROF	HAMER	ML	Lovell	SJ	MSc	An assessment of methods and approaches for invertebrate surveys in savanna						
PROF	HAMER	ML	Uys	CJ	MSc	Invertebrate diversity in afrotemperate forests: Spatial and seasonal changes and implications for conservation						
PROF	HAMER	ML	Horn	JL	MSc	The invertebrates of indigenous forests in Limpopo, South Africa: diversity, biogeography and conservation						
PROF	KIRKMAN	KP	Erasmus	GS	MScAg	An investigation of diminishing beef cattle productivity in South Africa						
PROF	KIRKMAN	KP	Wessels	MF	MScAg	The role of fire and mechanical clearing in the management of <i>Chromolaena adorata</i>						
PROF	KIRKMAN	KP	West	JA	MScAg	The assessment of the effect of season of grazing, stocking rate and rainfall on the dynamics of an arid rangeland on the west coast of South Africa						
PROF	KIRKMAN	KP	Amiyo	AT	MSc	Ngorongo Crater Rangelands: condition, management and monitoring						
PROF	KIRKMAN	KP	Holliday	J	MScAg	Management of Kikuyu (<i>Pennisetum clandestinum</i>)for improved dairy production						
PROF	KIRKMAN	KP	Tedla	RT	MScAg	Production and economics of Arado and Barka cattle in						

						Eritrea					
PROF	KIRKMAN	KP	Dalton	BPA	MSc	The coastal grasslands of Maputaland, South Africa : Effects of fire and grazing on vegetation structure, diversity and composition					
PROF	KIRKMAN	KP	Tedder	MJ	MSc	Above and below ground competition in savanna systems					
PROF	KIRKMAN	KP	Ellis	MJ	MSc	Aspects of the ecology of grass seedlings used for re-vegetation of degraded land					
PROF	ORTMANN	GF	Sparrow	GN	MAGMan	A demand analysis of labour in South African agriculture: the effects of labour legislation					
PROF	ORTMANN	GF	Mac Nicol	R	MScAg	Risk management in SA agriculture					
PROF	ORTMANN	GF	Chibanda	M	MSc	Institutional factors influencing the performance of selected smallholder agricultural cooperatives in KwaZulu-Natal, South Africa					
PROF	ORTMANN	GF	Du Toit	JP	MScAg	Factors influencing the long-term competitiveness of commercial milk producers in East Griqualand, South Africa					
PROF	ORTMANN	GF	Sparks	GD	MScAg	The economic feasibility of on-farm biodiesel production in KwaZulu-Natal, South Africa					
PROF	PERRIN	MR	Burton	SL	MSc	Comparative aspects of the ecophysiology of African and Australian parrots					
PROF	PERRIN	MR	Greene	SN	MSc	Metabolic physiology of Colubrid dietary specialists, <i>Dasyptis scabra</i> and <i>Dasyptis inornata</i>					
PROF	SCHULZE	RE	Hull	PJ	MSc	Agroclimatic response mapping for sugarcane production in southern Africa					
PROF	SCHULZE	RE	Barichiev	KR	MSc	Conceptualisations and Applications of Eco-Hydrological Indicators under Conditions of Climate Change					
PROF	WARD	DM	Okubamic hael	DY	MSc	Host specificity in the mistletoe <i>Agilanthus natalitius</i>					
PROF	WARD	DM	Gordijn	PJ	MSc	The role of fire in bush encroachment in Ithala Game Reserve					
PROF	SMITHERS	JC	Lecler	NL	PhD	Integrated systems for catchment to field scale irrigation water management					
PROF	SMITHERS	JC	Y Ghile	Y	PhD	Development of an integrated time-varying agrohydrological forecast system for southern Africa					
PROF	SMITHERS	JC	Frezghi	M	MSc	Improved estimation of catchment rainfall for continuous simulation model development					
PROF	SMITHERS	JC	Griffiths	B	MSc	Precision agriculture for sugarcane : development of crop monitoring systems					
PROF	SMITHERS	JC	Moult	N	MSc	Development of a catchment scale systems model for irrigated sugarcane production					
PROF	SMITHERS	JC	Greaves	K	MSc	Quantifying and benchmarking irrigation scheme performance with water balances and performance indicators					

PROF	SMITHE RS	JC	Langton	M	MSc	Development of the Illovo cane brush cutter harvesting system				
PROF	SMITHE RS	JC	Mills	D	MSc	Development and assessment of an automated short furrow irrigation system				
PROF	SMITHE RS	JC	Chetty	K	MSc	Design flood estimation in South Africa using a continuous simulation modelling approach				
PROF	SMITHE RS	JC	Knoessen	D	MSc	Development of design and real temporal distributions of rainfall for South Africa				
PROF	SMITHE RS	JC	Tewolde	M	MSc	Development of techniques to estimate the parameters of the Muskingum method of flood routing using catchment characteristics				
PROF	SMITHE RS	JC	Ghile	Y	MSc	An adaption of the SCS-ACRU hydrograph generating technique for applications in Eritrea (
PROF	SMITHE RS	JC	Kime	D	MSc	The development of a water resources planning and operational auditing toolkit for South Africa				

List of Published papers

Year	Author	Title	Journal
Professor David Ward			
2010	Mbatha, K; Ward, D	The effects of grazing, fire , nitrogen and water availability on nutritional quality of grass in semi-arid savanna, South Africa	Journal of Arid Environments
2010	Ward, D	A parsimonious optimal foraging model explaining mortality patterns in Serengeti wildebeest	Ecological Modelling
2010	Ward, D	A resource ratio model of the effects of changes in CO(2) on woody plant invasion	Plant Ecology
2010	Ward, D	The effects of apical meristem damage of growth and defences of two Acacia species in the Negev Desert	Evolutionary Ecology Research
2010	Mbatha, KR; Ward, D	Effects of herbivore exclosures on variation in quality and quantity of plants among management and habitat types in a semiarid savanna	African Journal of Range & Forage Science
2010	Sher, AA; Wiegand, K; Ward, D	Do Acacia and Tamarix trees compete for water in the Negev desert?	Journal of Arid Environments
2010	Orians, CM; Ward, D	Evolution of plant defences in Nonindgenous Environments	Annual review of Entomology
2010	Ward, D; Musli, I; Or, K; et al	Bruchid seed infestation and development time of three host species of Acacia (Coleoptera, Bruchidae)	Zoology in the Middle East
2009	Moustakas, A; Sakkos, K; Wiegand, K; Ward, D et al	Are savannas patch-dynamic systems? A landscape model	Ecological Modelling
2009	Wilson, A; Ward, D; Brown, M et al	Seed production in a threatened Aloe is not affected by bird exclusion or population size	Plant Ecology
2009	Meyer, KM; Wiegand, K; Ward, D	Patch dynamics integrate mechanisms for savanna tree-gas coexistence	Basic and Applied Ecology
2008	Mboumba, GB; Ward, D	Phenotypic plasticity and local adaptation in two extreme	African Journal of Range &

		populations of <i>Acacia karroo</i>	Forage Science
2008	Kaphengst, T; Ward, D	Effects of habitat structure and shrub encroachment on bird species diversity in arid savanna in Northern Cape Province, South Africa	OSTRICH
2008	Ward, D; Pepler, D; Botha, R	The influence of sample size on the determination of population trends in the vulnerable Lesser Kestrel <i>Falco naumanni</i> overwintering in South Africa	OSTRICH
2008	Meyer, KM; Wiegand, K; Ward, D et al	Determining patch size	African Journal of Ecology
2008	Ruiz-R,N; Ward,D; Saltz, D	Leaf compensatory growth as a tolerance strategy to resist herbivory in <i>Pancratium sickenbergeri</i>	Plant Ecology
2008	Meyer,KM; Ward, D; Wiegand K et al	Multi-proxy evidence for competition between savanna woody species	Perspectives in Plant Ecology Evolution and Systematics
2007	Meyer,KM; Wiegand K; Ward, D; et al	SATCHMO: A spatial simulation model of growth, competition, and mortality in cycling savanna patches	Ecological Modelling
2007	Meyer,KM; Wiegand K; Ward, D; et al	The rhythm of savanna patch dynamics	Journal of Ecology
2007	Zinn, AD; Ward, D; Kirkman, K	Inducible defences in <i>Acacia sieberiana</i> in response to giraffe browsing	African Journal of Range & Forage Science
2007	Britz, ML; Ward, D	Dynamics of woody vegetation in a semi-arid savanna, with a focus on bush encroachment	African Journal of Range & Forage Science
2007	Henley, SR; Ward, D; Schmidt, I	Habitat selection by two desert-adapted ungulates	Journal of Arid Environments
2007	Britz, ML; Ward, D	The effects of soil conditions and grazing strategy on plant species composition in a semi-arid savanna	African Journal of Range & Forage Science
2007	Katjiua, M; Ward,D	Pastoralists' perceptions and realities of vegetation change and browse consumption in the Northern Kalahari, Namibia	Journal of Arid Environments
2007	Or, K; Ward, D	Maternal effects on the life histories of bruchid beetles infesting <i>Acacia raddiana</i> in the Negev desert, Israel	Entomologia Experimentalis et Applicata
2006	Ruiz, N; Saltz, D, Ward, D	Signal selection in a desert lily, <i>Pancratium sickenbergeri</i>	Evolutionary Ecology Research
2006	Kraaij, T; Ward, D	Effects of rain, nitrogen, fire and grazing on tree recruitment and early survival in bush-encroached savanna, South Africa	Plant Ecology
2006	Ruiz, N; Saltz, D, Ward, D	The effects of herbivory and resource variability on the production of a second inflorescence by the desert lily, <i>Pancratium sickenbergeri</i>	Plant Ecology
2006	Mbatha, KR; Ward, D	Determining spatial and temporal variability in quantity and quality of vegetation for estimating the predictable sustainable stocking rate in the semi-arid savanna	African Journal of Range & Forage Science
2006	Moustakas, A; Guenther, M; Ward, D et al	Long-term mortality patterns of the deep-rooted <i>Acacia erioloba</i> : The middle class shall die	Journal of Vegetation Science
2006	Ruiz-R, N; Ward D; Saltz, D	Population differentiation and the effects of herbivory and sand	Journal of Heredity

		compaction on the subterranean growth of a desert lily	
2006	Katjiua, MLJ; Ward, D	Resistance and tolerance of <i>Terminalia sericea</i> trees to simulated herbivore damage under different soil nutrient and moisture conditions	Journal of Chemical Ecology
2006	Mbatha, KR, Ward, D	Using faecal profiling to assess the effects of different management types on diet quality in semi-arid savanna	African Journal of Range & Forage Science
2006	Katjiua, MLJ; Ward, D	Cattle diet selection during the hot-dry season in a semi-arid region of Namibia	African Journal of Range & Forage Science
2006	Smet, M; Ward, D	Soil quality gradients around water-points under different management systems in a semi-arid savanna, South Africa	Journal of Arid Environments
2006	Ward, D; Shrestha, MK, Madam, K; Musli, I	Are invasive mistletoes killing <i>Ziziphus spina-christi</i> ?	Israel Journal of Plant Sciences
Professor Mike Perrin			
2010	Pillay, K; Dawson, DA; Perrin M et al	Twenty-two polymorphic microsatellite loci aimed at detecting illegal trade in the Cape parrot, <i>Poicephalus robustus</i> (Psittacidae, AVES)	Molecular Ecology Resources
2010	Boyes, RS; Perrin, M	Patterns of daily activity of Meyer's Parrot (<i>Poicephalus meyeri</i>) in the Okavango Delta, Botswana	EMU
2009	Monadjem, A; Reside, A, Perrin; M, et al	Roots selection and home range of an African insectivorous bat <i>Nycteris thebaica</i> (Chiroptera, Nycteridae)	MAMMALIA
2009	Mcconnachie, S; Greene, SN; Perrin M	A Novel Aquatic Thermal Mosaic for assessing preferred body temperature in Semi-Aquatic snakes	Herpetological Review
2009	Meares, K; Dawson,DA; Perrin M et al	Microsatellite loci characterized in three African crane species (Gruidae, Aves)	Molecular Ecology Resources
2008	Meares, K; Dawson,DA; Perrin, M et al	Characterisation of 14 blue crane <i>Grus paradise</i> (Gruidae, AVES) microsatellite loci for use in detecting illegal trade	Conservation Genetics
2007	Brown,M; Perrin,MR, Hoffman, B	Reintroduction of captive-bred African Grass-Owls <i>Tyto capensis</i> into natural habitat	OSTRICH
2007	Linn, IJ; Perrin,MR; Bodbijl, T	Movements and home range of the gaboon adder, <i>Bitis gabonica gabonica</i> , in Zululand, South Africa	African Zoology
2006	Perrin, MR; Carugati, C	Abundance estimates of the Cape clawless otter <i>Aonyx capensis</i> (Schinz 1821) and the spotted-necked otter <i>Lutra maculicollis</i> (Lichtenstein 1835) in the KwaZulu-Natal Drakensberg, South Africa	Tropical Zoology
2006	Boyes, RS; Perrin, MR	Census techniques for southern reedbeek, <i>Redunca arundinum</i> , on forestry lands in the Natal Midlands, South Africa	South African Journal of Wildlife Research
2006	Warburton, LS; Perrin, MR	The Black-cheeked Lovebird (<i>Agapornis nigrigenis</i>) as an agricultural pest in Zambia	EMU
Professor Colleen Downs			
2010	Bowker, MB; Taylor, RH; Downs, CT	Numbers and distribution of the Great White Pelican <i>Pelecanus onocrotalus</i> and the Pink-backed Pelican <i>P. rufescens</i> in North Eastern KwaZulu Natal, South Africa	OSTRICTH

2010	Coleman, JC; Downs, CT	Does home range of the black-tailed tree rat (<i>Thallomys nigricauda</i> Thomas 1882) change with season along an aridity GRADIENT	African Zoology
2010	Lindsay, CV; Downs CT; Brown M	Seasonal variation in hematocrit levels of Amethyst Sunbirds (<i>Chalcomitra amethystina</i>) over an altitudinal gradient	Journal of Ornithology
2010	Brown, M; Downs, CT; Johnson, SD	Pollination of the red-hot poker <i>Kniphofia laxiflora</i> (Asphodelaceae) by sunbirds	South African Journal of Botany
2010	Grey-Ross, R; Downs, CT; Kirkman, K	An assessment of illegal hunting on farmland in KwaZulu Natl, South Africa: implications for oribi (<i>Ourebia ourebi</i>) conservation	South African Journal of Wildlife Research
2010	Lindsay, C; Downs, C; Brown, M	Physiological variation in Amethyst Sunbirds (<i>Chalcomitra amethystina</i>) over an altitudinal gradient: A seasonal comparison (Retraction of Vol 152,pg 593, 2009)	Comparative Biochemistry and Physiology a Molecular & Integrative Physiology
2010	Coleman, JC; Downs, CT	Daily rhythms of body temperature and activity in free-living Black-tailed Tree Rats (<i>Thallomys nigricauda</i>) along an aridity gradient	Physiology & Behavior
2010	Volampeno, M; Sylviane, N; Downs, CT et al	A population estimate of blue-eyed black Lemurs in Ankarafa Forest, Sahamalaza-Iles Radama National Park, Madagascar	Folia Primologica
2009	Wimberger, K; Armstrong, AJ; Downs, CT	Can rehabilitated leopard tortoises, <i>Stigmochelys pardalis</i> , be successfully released into the Wild?	Chelonian Conservation and Biology
2009	McMaster, MK; Downs, CT	Home range and daily movement of Leopard tortoises (<i>Stigmochelys pardalis</i>) in the Nama-Karoo, South Africa	Journal of Herpetology
2009	Coleman, JC; Downs, CT	Variation in urine concentrating ability and water balance of the black-tailed tree rat <i>Thallomys nigricauda</i> , along an aridity gradient	Comparative Biochemistry and Physiology a-Molecular & Integrative Physiology
2009	Brown, M; Downs, CT; Johnson, SD	Pollination of the red hot poker <i>Kniphofia caulescens</i> by short-billed opportunistic avian nectarivores	South African Journal of Botany
2009	Wimberger, K; Downs, CT; Perrin, M	Two unsuccessful re-introduction attempts of rock	South African in Journal of Wildlife Research
2009	Grey-Ross, R; Downs, CT; Kirkman, K	Is use of translocation for the conservation of subpopulations of oribi <i>Ourebia ourebi</i> (Zimmermann) effective? A case study	African Journal of Ecology
2009	Grey-Ross, R; Downs, CT; Kirkman K	Using housing estates as conservation tools: A case study in KwaZulu-Natal, South Africa	Applied Geography
2009	Lindsay, C; Downs,CT; Brown, M	Physiological variation in Amethyst Sunbirds (<i>Chalcomitra amethystina</i>) over an altitudinal gradient in summer	Journal of Thermal Biology
2009	Grey-Ross, R; Downs,CT; Kirkman, K	Reintroduction failure of captive-bred oribi (<i>Ourebia ourebi</i>)	South African Journal of Wildlife Research
2009	Lindsay, CV; Downs, CT; Brown, M	Physiological variation in amethyst sunbirds (<i>Chalcomitra amethystina</i>) over an altitudinal gradient in winter	Journal of Experimental Biology
2008	Bowker, MB; Downs, CT	Fluctuations in numbers of great white pelicans at Lake St Lucia in response to changing water-levels	African Journal of Ecology
2008	Bowker, MB; Downs, CT	Breeding incidence of the great white pelican <i>Pelecanus onocrotalus</i> and the pink-backed pelican <i>P. refescens</i> in South Eastern from 1933-2005	OSTRICH
2008	Potgieter, D; Brown, M;	Is commercial Protea farming causing a change in the seasonal	OSTRICH

	Downs, CT	range of Gurney's Sugarbird <i>Promerops gurneyi</i> in the KwaZulu-Natal Midlands, South Africa	
2008	Bowker, M; Downs, CT	The status of habitat of great white and pink backed pelicans in North Eastern KwaZulu-Natal, South Africa: A review	African Zoology
2008	Downs, CT; Greaver, C; Taylor, R	Body temperature and basking behaviour of Nile Crocodiles (<i>Crocodylus niloticus</i>) during winter	Journal of Thermal Biology
2007	Coates, GD; Downs, CT	Population estimates of bushbuck (<i>Tragelaphus scriptus</i>) in valley thicket and coastal bushveld-grassland habitat	South African Journal of Wildlife Research
2006	McMaster, MK; Downs CT	Population structure and density of Leopard Tortoises (<i>Geochelone pardalis</i>) on farmland in the Nama-Karoo	Journal of Herpetology
2006	Coates, GD; Downs, CT	A preliminary study of valley thicket and coastal bushveld-grassland habitat use during summer by bushbuck (<i>Tragelaphus scriptus</i>): a telemetry based study	South African Journal of Wildlife
2005	Coates, GD; Downs, CT	A telemetry-based study of bushbuck (<i>Tragelaphus scriptus</i>) home range in Valley Bushveld	African Journal of Ecology
Professor Kevin Kirkman			
2010	Ghebrehiwot, HM; Kulkarni, MG; Kirkman, KP et al	Germination activity of smoke residues in soils following a fire	South African Journal of Botany
2010	Fynn, R; Morris, C; Ward D, Kirkman, KP	Trait-environment relations for dominant grasses in South African mesic grassland support a general leaf economic model	Journal of Vegetation Science
2010	Ghebrehiwot, HM; Kulkarni, MG; Kirkman, KP et al	Smoke solutions and temperature influence the germination and seedling growth of South African mesic grassland species	South African Journal of Botany
2010	Firn, J; Moore, JL; Kirkman, KP et al	Abundance of introduced species at home predicts abundance away in herbaceous communities	Ecology Letters
2010	Cordon, J; Cordon, D; Kirkman et al	Landscape-scale feeding patterns of African elephant inferred from carbon isotope analysis of feces	OECOLOGIA
2010	Grey-Ross, R; Downs, CT; Kirkman, KP	An assessment of illegal hunting on farmland in KwaZulu-Natal, South Africa: implications for oribi (<i>Ourebia ourebi</i>) conservation	South African Journal of Wildlife Research
2010	Melzer, SE; Knapp, AK; Kirkman, KP	Fire and grazing impacts on silica production and storage in grass dominated ecosystems	Biogeochemistry
2010	O'Connor, TG; Kuyler, P; Kirkman, KP et al	Which grazing management practices are most appropriate for maintaining biodiversity in South African grassland	African Journal of Range & Forage Science
2009	Ghebrehiwot, HM; Kulkarni, MG; Kirkman, KP et al	Smoke solutions and temperature influence the germination and seedling growth of South African Mesic Grassland Species	Rangeland Ecology & Management
2009	Grey-Gross, R; Downs, CT; Kirkman, KP	Is use of translocation for the conservation of subpopulations of oribi <i>Ourebia ourebi</i> (Zimmerman) effective? A case study of	African Journal of Range & Forage Science
2009	Buis, GM; Blair, JM; Kirkman, KP et al	Controls of aboveground Net Primary Production in Mesic Savanna Grasslands: An Inter-Hemispheric Comparison	ECOSYSTEMS
2009	Grey-Gross, R; Downs, CT; Kirkman, KP	Using housing estates as conservation tools: A case study in KwaZulu-Natal, South Africa	Applied Geography
2009	Fynn, RWS; Wragg, PD, Kirkman, KP	Vegetative traits predict grass species' invasiveness and the invisibility of restored grassland	African Journal Range & Forage Science

2009	Grey-Gross, R; Downs, CT; Kirkman, KP	Reintroduction failure of captive-bred oribi (<i>Ourebia ourebi</i>)	South African Journal of Wildlife Research
2008	Ghebrehiwot, HM; Kulkarni, MG; Kirkman, KP et al	Smoke-water and smoke-isolated butenolide improve germination and seedling vigour of <i>Eragrostis tef</i> (Zucc) trotter under high temperature and low osmotic potential	Journal of Agronomy and Crop Science
2007	Jansen, DA; van Langeveld, F; Kirkman, KP	Optimisation or satiation, testing die selection rules in goats	Small Ruminant Research
2007	De Knegt, HT, Hengeveld, GM; Kirkman, KP	Patch density determines movement patterns and foraging efficiency of large herbivores	Behavioural Ecology
2007	Zinn, AD; Ward, D; Kirkman KP	Inducible defences in <i>Acacia sieberiana</i> in response to giraffe browsing	African Journal of Range & Forage Science
2006	Knapp, AK; Burns, CE; Kirkman, KP	Convergence and contingency in production-precipitation relationships in North American and South African C-4 grassland	OECOLOGIA
2006	Ghebrehiwot, HM; Fynn, RWS, MG; Kirkman, KP et al	Shoot and root biomass allocation and competitive hierarchies of four South African grass species on light, soil resources	African Journal of Range & Forage Science
Professor Roland Schulze			
2010	Blignaut, JM; Mander, M; Schulze, R	Restoring and managing natural capital towards fostering economic development: Evidence from Drakensberg, South Africa	Ecological Economics
2010	Ghile, Y, Schulze, R; Brown, C	Evaluating the performance of ground-based and remotely sensed near real-time rainfall fields from a hydrological perspective	Hydrological Sciences Journal- Journal des Sciences Hydrologiques
2010	Singles, A; Annandale, JG; Schulze, R	Modelling crop growth and crop water relations in South Africa: Past achievements and lessons for the future	South African Journal of Plant and Soil
2010	Archibald, S; Nickless, A, Schulze, R	Methods to determine the impact of rainfall on fuels and burned area in Southern African savannas	International Journal of Wildland Fire
2010	Warburton, ML, Schulze, RE; Jewitt, GPW	Confirmation of ACRU model results for applications in land use and climate change studies	Hydrology and Earth System Sciences
2009	Lumsden, TG; Schulze, RE; Hewitson, BC	Evaluation of potential changes in hydrologically relevant statistics of rainfall in Southern Africa under conditions of climate change	WATER SA
2009	Ghile, YP, Schulze, RE	Use of an Ensemble Re-ordering method for disaggregation of seasonal categorical rainfall forecasts into conditioned ensembles of daily rainfall for hydrological forecasting	Journal of Hydrology
2008	Ghile, YP, Schulze, RE	Development of a framework for an integrated time-varying agrohydrological forecast system for Southern Africa: Initial results for seasonal forecasts	WATER SA
2008	Warburton, ML; Schulze, RE	Potential impacts of climate change on the climatically suitable growth areas of <i>Pinus</i> and <i>Eucalyptus</i> : results from a sensitivity study in South Africa	Southern Forests
2008	Bezuidenhout, CN; Goebel, R; Schulze, RE et al	Assessing the potential threat of <i>Chilo sacchariphagus</i> (Lepidoptera: Crambidae) as a pest in South Africa and Swaziland: realistic scenarios based on climatic indices	African Entomology
2008	Walker, NJ; Schulze, RE	Climate change impacts on agro-ecosystem sustainability across	Agriculture Ecosystems &

		three climate regions in the maize belt of South Africa	Environment
2007	Lecler, NL, Clark, DJ; Schulze, RE et al	Performance of irrigation systems and water use sugarcane: A field to catchment scale perspective	Sugar Cane International
2006	Kiker, GA, Clark, DJ, Schulze, RE	A Java-based, object-oriented modelling system for Southern African hydrology	Transactions of the Asabe
2006	Bezuidenhout, CN; Schulze, RE	Application of seasonal climate outlooks to forecast sugarcane production in South Africa	Climate Research
2005	Walker, NJ; Schulze, RE	An assessment of sustainable maize production under different management and climate scenarios for smallholder agro-ecosystems in KwaZulu-Natal, South Africa	Physics and Chemistry of the Earth
2004	Smithers, JC; Schulze, RE	The estimation of design rainfalls for South Africa using a regional scale invariant approach	Water SA
Professor Gerald Ortmann			
2010	Ortmann, GF; King, RP	Research on agri-food supply chains in Southern Africa involving small-scale farmers: current status and future possibilities	AGREKON
2010	Mutenje, MJ; Ortmann, GF, Ferrer, SD et al	Rural livelihood diversity to manage economic shocks: Evidence from South East Zimbabwe	AGREKON
2010	Du Toit, JP; Ortmann, GF; Ramroop, S	Factors influencing the long-term competitiveness of commercial milk producers: evidence from panel data in East Griqualand, South Africa	AGREKON
2009	Chibanda, M; Ortmann,GF; Lyne, MC	Institutional and governance factors influencing the performance of selected smallholder agriculture cooperatives in KwaZulu Natal	AGREKON
2009	Gray, L; Ferrer, S; Ortmann, G	KwaZulu-Natal commercial farmers' perceptions of and management responses to HIV/AIDS	Ajar-African Journal of Aids Research
2009	Du Toit, JP; Ortmann, GF	Impact of market deregulation of the competitiveness of commercial milk producers in East Griqualand: A unit cost ratio (UCR) analysis: 1983-2006	AGREKON
2009	Mabuza, ML; Hendriks, SL; Ortmann, GF	The impact of food aid on maize prices and production in Swaziland	AGREKON
2008	Darroch, MAG, Lee, RB, Ortmann, GF	The economic impact of a rural land tax on selected commercial farms in KwaZulu-Natal	Southern African Journal of Economic and Management Sciences
2008	Mac, Nicol, R; Ortmann, GF, Ferrer, SRD	Management decisions on commercial sugarcane farms in KwaZulu-Natal: A focus on choice bracketing behaviour for risk management	AGREKON
Professor Trevor Hill			
2010	Palmer, B; McGregor, GK, Hill; T	A spatial assessment of coastal development and land use change in the Eastern Cape, South Africa	South African Geographical Journal
2008	Nel, E; Hill, T	Marginalisation and demographic change in the semi-arid Karoo, South Africa	Journal of Arid Environments
2008	Finch, JM; Hill, TR	A late quaternary pollen sequence from Mfabeni Peatland, South Africa: Reconstructing forest history in Maputaland	Quaternary Research

2008	Rivers-Moore, NA; Hughes, DA; Hill TR et al	First steps in the development of a water temperature model framework for refining the ecological Reserve in South African rivers	Water SA
2008	Traynor, CH; Hill TR	Resource demand estimates for sustainable forest management: Mngazana Mangrove Forest, South Africa	Bothalia
2007	Hill, TR; Nel, EL; Lllgner,P	Partnership for success-community-based economic development: a case study of Ngolowindo Cooperative, Malawi	Environment and Planning C-Government and Policy
2007	Donaldson-Selby, G; Hill, T, Korrubel, J	Photorealistic visualisation of urban greening in a low-cost high density housing settlement, Durban, South Africa	Urban Forestry & Urban Greening
2007	Wakelin, J; Hill, TR	The impact of land transformation on breeding Blue Swallows <i>Hirundo atrocaerulea</i> Sundevall, in KwaZulu Natal, South Africa	Journal for Nature Conservation
2006	Finch, JM; Samways, MJ, Hill, TR et al	Application of predictive distribution modelling to invertebrates: Odonata in South Africa	Biodiversity and Conservation
2006	Hill, T; Nel, E; Trotter, D	Small-scale, nature-based tourism as a pro-poor development intervention: Two examples in KwaZulu-Natal, South Africa	Singapore Journal of Tropical Geography
	De, Neergaard; A, Saarnak, C; Hill, T et al	Australian wattle species in the Drakensberg region of South Africa – An invasive alien or a natural resources?	
Dr Adrian Shrader			
2010	Shrader, AM; Pimm, SL; van Aarde, Rudi, J	Elephant survival, rainfall and the confounding effects of water provision and fences	Biodiversity and Conservation
2008	Shrader, AM; Brown, JS, Kerley G ,et al	Do-free-ranging domestic goats show 'landscapes for fear'? Patch use in response to habitat features and predator cues	Journal and Arid Environments
2008	Shrader, AM; Andrian, M, Kotler, BP	Providing water for goats in arid landscapes: effects on feeding effort with regard to time period, herd size and secondary compounds	OIKOS
2007	Kerley, GHI, Shrader, AM	Elephant contraception: Silver bullet or potentially bitter pill	South African Journal of Science
2007	Shrader, AM, Kerley, GIH, Kotler BP, et al	Social information, social feeding, and competition in group-living goats (<i>Capra hircus</i>)	Behavioral Ecology
2006	Shrader, AM; Andrian, M ; Perin MR	Influence of density on the seasonal utilization of broad grassland types by white rhinoceroses	African Zoology
2006	Shrader, AM; Ferreira, SM, McElveen, ME	Growth and age determination of African savanna elephants	Journal of Zoology
2006	Shrader, AM; Ferreira, SM, van Aarde, R	Digital photogrammetry and laser rangefinder techniques to measure African elephants	South African Journal of Wildlife Research
2006	Shrader, AM; Owen-Smith, N; Ogutu, JO	How a mega-grazer copes with the dry season: food and nutrient intake rates by white rhinoceros in the wild	Functional Ecology
Dr Theresa Everson			
2009	Everson, CS; Everson, TM; van Niekerk, W	Soil water competition in a temperature hedgerow agroforestry system in South Africa	Agroforestry Systems
2009	Everson, TM; Yeaton, RI; Everson, CS	Seed dynamics of <i>Themeda triandra</i> in the montane grassland of South Africa	African Journal of Range & Forage Science

Dr Michelle Hamer			
2010	Lovell, SJ, Hamer, ML, Slotow, RH, et al	Assessment of sampling approaches for a multi-taxa invertebrate survey in a South African savanna-mosaic ecosystem	Austral Ecology
2010	Uys, C; Hammer, M; Slotow, R	Step process for selecting and testing surrogates and indicators of Afrotropical forest invertebrate diversity	PLOS ONE
2010	Hamer, M	African Invertebrates in the International year of Biodiversity	African Invertebrates
2010	Redman, GT, Hamer, M, Slotow, R, et al	Description of two new species of Zinophoro Chamberlin, 1927 (Diplopoda: Spirosterptida: Harpagophoridae), with discussion of species groups in the genus	African Invertebrates
2009	Uys, C; Hamer, M; Slotow, R	Turnover in flightless invertebrate species composition over different spatial scale in Afrotropical forest in the Drakensberg, South Africa	African Journal of Ecology
2009	Daniels, SR, Picker, MD, Hamer M, et al	Unravelling evolutionary lineages among South African velvet worms (Onychophora: Peripatopsis) provides evidence for widespread cryptic speciation	Biological Journal of the Linnean Society
2009	Hamer, M, Slotow, R	A comparison and conservation assessment of the high-altitude grassland and forest-milliped (Diplopoda) fauna of the South African Drakensberg	Soil Organisms
2007	Horn, JL, Plisko, JD, Hamer, ML	The leaf-litter earthworm fauna (Annelida: Oligochaeta) of forests in Limpopo Province, South Africa: diversity communities and conservation	African Zoology
2007	Druce, D; Hamer, M; Slotow, R	Patterns of millipede (Diplopoda), centipede (Chilopoda) and scorpion (Scorpionida), diversity, in savanna habitats within the greater Makalali Conservancy, South Africa	African Zoology
2007	Lovell, S; Hammer, M; Slotow, R	Assessment of congruency across invertebrate taxa and taxonomic levels to identify potential surrogates	Biological Conservation
2007	Uys, C; Hamer,	The effect of long-term fire treatments on invertebrates: results from experimental plots at Cathedral Peak, South Africa	African Journal of Range & Forage Science
2006	Uys, C; Hamer, M; Slotow, R	Effect of burn area on invertebrate recolonization in grassland in the Drakensberg, South Africa	African Zoology
Professor Steven Johnson			
2010	Ellis Allan G.; Johnson Steven D.	<u>Gender differences in the effects of floral spur length manipulation on fitness in a hermaphrodite orchid</u>	INTERNATIONAL JOURNAL OF PLANT SCIENCES
2010	Ellis Allan G.; Johnson Steven D.	<u>Floral Mimicry Enhances Pollen Export: The Evolution of Pollination by Sexual Deceit Outside of the Orchidaceae</u>	AMERICAN NATURALIST
2010	Kotze M. J.; Jurgens A.; Johnson S. D.; et al.	<u>Volatiles associated with different flower stages and leaves of Acacia cyclops and their potential role as host attractants for Dasineura dielsi (Diptera: Cecidomyiidae)</u>	SOUTH AFRICAN JOURNAL OF BOTANY
2010	Suinyuy T. N.; Donaldson J. S.; Johnson S. D.	<u>Scent chemistry and patterns of thermogenesis in male and female cones of the African cycad Encephalartos natalensis (Zamiaceae)</u>	SOUTH AFRICAN JOURNAL OF BOTANY
2010	Van der Niet T.; Jurgens A.; Johnson S.	<u>Pollinators, floral morphology and scent chemistry in the</u>	SOUTH AFRICAN JOURNAL

	D.	<u>southern African orchid genus Schizochilus</u>	OF BOTANY
2010	Johnson S. D.; Hobbhahn N.	<u>Generalized pollination, floral scent chemistry, and a possible case of hybridization in the African orchid Disa fragrans</u>	SOUTH AFRICAN JOURNAL OF BOTANY
2010	Shuttleworth A.; Johnson S. D.	<u>Floral scents of chafer-pollinated asclepiads and a potential hybrid</u>	SOUTH AFRICAN JOURNAL OF BOTANY
2010	Steenhuisen S-L; Raguso R. A.; Jurgens A.; et al.	<u>Variation in scent emission among floral parts and inflorescence developmental stages in beetle-pollinated Protea species (Proteaceae)</u>	SOUTH AFRICAN JOURNAL OF BOTANY
2010	Johnson S. D.; Jurgens A.	<u>Convergent evolution of carrion and faecal scent mimicry in fly-pollinated angiosperm flowers and a stinkhorn fungus</u>	SOUTH AFRICAN JOURNAL OF BOTANY
2010	Vaughton Glenda; Ramsey Mike; Johnson Steven D.	<u>Pollination and late-acting self-incompatibility in Cyrtanthus breviflorus (Amaryllidaceae): implications for seed production</u>	ANNALS OF BOTANY
2010	Shuttleworth Adam; Johnson Steven D.	<u>The missing stink: sulphur compounds can mediate a shift between fly and wasp pollination systems</u>	PROCEEDINGS OF THE ROYAL SOCIETY B-BIOLOGICAL SCIENCES
2010	Abdelgadir H. A.; Jager A. K.; Johnson S. D.; et al.	<u>Influence of plant growth regulators on flowering, fruiting, seed oil content, and oil quality of Jatropha curcas</u>	SOUTH AFRICAN JOURNAL OF BOTANY
2010	Brown M.; Downs C. T.; Johnson S. D.	<u>Pollination of the red-hot poker Kniphofia laxiflora (Asphodelaceae) by sunbirds</u>	SOUTH AFRICAN JOURNAL OF BOTANY
2010	Linder H. Peter; Johnson Steven D.; Kuhlmann Michael; et al.	<u>Biotic diversity in the Southern African winter-rainfall region</u>	CURRENT OPINION IN ENVIRONMENTAL SUSTAINABILITY
2010	Hargreaves Anna L.; Harder Lawrence D.; Johnson Steven D.	<u>Native pollen thieves reduce the reproductive success of a hermaphroditic plant, Aloe maculata</u>	ECOLOGY
2010	Rodger James G.; van Kleunen Mark; Johnson Steven D.	<u>Does specialized pollination impede plant invasions?</u>	INTERNATIONAL JOURNAL OF PLANT SCIENCES
2010	Anderson Bruce; Alexandersson Ronny; Johnson Steven D.	<u>Evolution and coexistence of pollination ecotypes in an African gladiolus (Iridaceae)</u>	EVOLUTION
2010	Horsley T. N.; Johnson S. D.	<u>Relative success of self and outcross pollen after mixed- and single-donor pollinations in Eucalyptus grandis</u>	SOUTHERN FORESTS
2010	Johnson Steven D.	<u>The pollination niche and its role in the diversification and maintenance of the southern African flora</u>	PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY B-BIOLOGICAL SCIENCES
2010	Horsley Tasmien N.; Johnson Steven D.; Myburg Alexander A.	<u>Comparison of different control-pollination techniques for small-flowered eucalypts</u>	NEW FORESTS
2009	Johnson Steven D.; Manning John C.; Pauw Anton	<u>Advances in the pollination biology of South African plants</u>	SOUTH AFRICAN JOURNAL OF BOTANY
2009	Johnson S. D.; Harris L. Fabienne; Proches S.	<u>Pollination and breeding systems of selected wildflowers in a southern African grassland community</u>	SOUTH AFRICAN JOURNAL OF BOTANY

2009	Wilson Amy-Leigh; Ward David; Brown Mark; et al.	Seed production in a threatened Aloe is not affected by bird exclusion or population size	PLANT ECOLOGY
2009	Abdelgadir Hafiz A.; Johnson Steven D.; Van Staden Johannes	Promoting branching of a potential biofuel crop <i>Jatropha curcas</i> L. by foliar application of plant growth regulators	PLANT GROWTH REGULATION
2009	Abdelgadir H. A.; Johnson S. D.; Van Staden J.	Pollinator effectiveness, breeding system, and tests for inbreeding depression in the biofuel seed crop, <i>Jatropha curcas</i>	JOURNAL OF HORTICULTURAL SCIENCE & BIOTECHNOLOGY
2009	Abdelgadir H. A.; Johnson S. D.; Van Staden J.	Pollen viability, pollen germination and pollen tube growth in <i>Jatropha curcas</i> - A potential oil seed crop for biodiesel	SOUTH AFRICAN JOURNAL OF BOTANY
2009	van der Niet Timotheues; Johnson Steven D.	Patterns of plant speciation in the Cape floristic region	MOLECULAR PHYLOGENETICS AND EVOLUTION
2009	Proches Serban; Forest Felix; Veldtman Ruan; et al.	Dissecting the plant-insect diversity relationship in the Cape	MOLECULAR PHYLOGENETICS AND EVOLUTION
2009	Abdelgadir H. A.; Johnson S. D.; Van Staden J.	Promotion of seedling growth in <i>Jatropha curcas</i> - a potential oil seed crop for biodiesel	SOUTH AFRICAN JOURNAL OF BOTANY
2008	Abdelgadir H. A.; Johnson S. D.; Van Staden J.	Approaches to improve seed production of <i>Jatropha curcas</i> L.	SOUTH AFRICAN JOURNAL OF BOTANY
2008	Johnson S. A.; Addison P.	A survey of the grain chinch bug, <i>Macchiademus diplopterus</i> (Distant) (Hemiptera : Lygaeidae), in deciduous fruit orchards in the Western Cape, South Africa	AFRICAN ENTOMOLOGY
2009	Van Kleunen Mark; Manning John C.; Pasqualetto Vanessa; et al.	Phylogenetically independent associations between autonomous self-fertilization and plant invasiveness	AMERICAN NATURALIST
2008	van Kleunen Mark; Fischer Markus; Johnson Steven D.	Reproductive assurance through self-fertilization does not vary with population size in the alien invasive plant <i>Datura stramonium</i>	OIKOS
2007	Van Kleunen Mark; Johnson Steven D.	South African Iridaceae with rapid and profuse seedling emergence are more likely to become naturalized in other regions	JOURNAL OF ECOLOGY
2007	Van Kleunen Mark; Johnson Steven D.; Fischer Markus	Predicting naturalization of southern African Iridaceae in other regions	JOURNAL OF APPLIED ECOLOGY
2007	Rodger J.; Johnson S. D.	Is selfing advantageous for single colonising trees? A comparison of two exotic <i>Acacia</i> species with contrasting breeding systems	SOUTH AFRICAN JOURNAL OF BOTANY
2009	Knoesen, D.M. and Smithers, J.C	The Development and Assessment of a Daily Rainfall Disaggregation Model for South Africa	Hydrological Science Journal
2009	Moult, N.G., Lecler, N.L. and Smithers, J.C	A Catchment Scale Irrigation Systems Model For Sugarcane II: Model Application.	Water SA
2009	Moult, N.G., Lecler, N.L., Smithers, J.C.	A Catchment Scale Irrigation Systems Model For	Water SA

	and Clark, D.C	Sugarcane I: Model Development.	
2008	Knoesen, D.M. and Smithers, J.C	The development and assessment of a regionalised daily rainfall disaggregation model for South Africa	Water SA
2008	Frezghi, M.S. and Smithers, J.C	Merged rainfall fields for continuous simulation modelling	Water SA,
2007	Langton, M., Smithers, J., Bezuidenhout, C. and Lyne, P	Evaluation of the Illovo mechanical cane cutter	International Sugar Journal
2006	Clark, D. and Smithers, J.C	Hydrological Decision Support Framework (HDSF) - Initial Design	Water SA
2006	Smithers, J.C	Challenges for Bioresources Engineering Education in South Africa	International Journal of Engineering Education
2006	Tewelde, M.H. and Smithers, J.C.,	Flood routing in ungauged catchments using Muskingum methods	Water SA
2011	Chaplot, V; Brown, J G; Lorentz, S et al	Rainfall simulation to identify the storm-scale mechanisms of gully bank retreat	Agricultural Water Management
2011	Dlamini, P., Orchard, C., Jewitt, G., Lorentz, S., Titshall, L. and Chaplot, V	Controlling factors of sheet erosion under degraded grasslands in the sloping lands of KwaZulu-Natal, South Africa	Agricultural Water Management
2011	Kongo. M.V., Jewitt, G.W.P. and Lorentz, S.A. 2011	Evaporative water use of different land uses in the upper-Thukela river basin assessed from satellite imagery	Agricultural Water Management
2011	Podwojewski, P., Janeau, JL., Grellier, S., Valentin, C., Lorentz, S. and Chaplot, V	Influence of grass soil cover on water runoff and soil detachment under rainfall simulation in a sub-humid South African degraded rangeland.	<i>Earth Surf. Process. Landforms</i>
2011	Viviroli, D., Archer, D. R., Buytaert, W; Lorentz, S	Climate change and mountain water resources: overview and recommendations for research, management and policy.	Hydrol. Earth Syst. Sci.,
2010	Riddell, E.S., Lorentz, S.A. and Kotze, D.C	A geophysical analysis of hydro-geomorphic controls within a headwater wetland in a granitic landscape, through ERI and IP	Hydrol. Earth Syst. Sci
2010	van Tol J.J., le Roux P.A.L., Hensley M., Lorentz S.A	Soil as indicator of hillslope hydrological behaviour in the Weatherley Catchment, Eastern Cape, South Africa	Water SA
2011	Idowu O.A., Lorentz, S.A., Annandale, J.G et al	Comparative assessment of widespread irrigation with low quality mine-water in undisturbed and rehabilitated mine-lands in the upper Olifants using the <i>ACRU2000</i> model	Water SA
2010	Mchunu, C., Manson, A., Jewitt, G. Lorentz, S. and Chaplot, V	No-Till Impact on Soil and Soil Organic Carbon Erosion under Crop Residue Scarcity in Africa.	Soil Sci. Soc. Am. J
2009	van der Laan, M., Annandale, J.G., du Preez, C.C. and Lorentz, S.A	Obtaining the parameters required to model labile phosphorus for South African soils.	SA. J Plant and Soil
2008	Wenninger, J., Uhlenbrook, S., Lorentz, S. and Leibundgut, C	Identification of runoff generation processes using combined hydrometric, tracer and geophysical methods	Hydrological Sciences Journal

		in a headwater catchment in South Africa	
2007	Kongo, V., Rotich, J., Jewitt, G. and Lorentz, S.	Establishment of a catchment monitoring network through a participatory approach in the Potshini catchment-S.Africa	<i>Water SA</i> . (in review).
2007	Jacobs, S.M., Bechtold, J.S., Biggs, H.C., Grimm, N.B., Lorentz, S. et al	. Nutrient vectors and riparian processing: A review with special reference to African semiarid savanna ecosystems.	Ecosystems
2007	Kosgei, J.R., Jewitt, G.P.W.J., Kongo, V.M. and Lorentz, S.A	The influence of tillage on field scale water fluxes and maize yields in semi-arid environments: A case study of Potshini catchment, South Africa.	Physics and Chemistry of the Earth
2007	Idowu, O.A., Lorentz, S.A., Annandale, J.G., McCartney, M.P et al	Assessment of the Impact of Irrigation with Low-quality Mine Water on Virgin and Rehabilitated Soils in the Upper Olifants Basin	<u>Mine Water and the Environment</u>
2009	Clark, D.J., Smithers, J.C., Hughes, D.A. et al	Design and Development of a Hydrological Decision Support Framework. Water Research Commission, Pretoria, South Africa	WRC Report No. 1490/1/09, 148pp.
2007	Clark, D.J., Hughes, D.A., Meier, K.B. and Smithers, J.C	Development of a Hydrological Decision Support Framework	Thirteenth South African National Hydrological Symposium (SANCIHHS), Cape Town, RSA
2007	Lecler, N.L., Clark, D.J., Schulze, R.E., Griffiths, B.A; et al	Performance of irrigation systems and water user of sugarcane: A field to catchment scale perspective	XXVI Conference of International Society of Sugar Cane Technologists (ISSCT), Durban, RSA
2006	Clark, D.J. and Smithers, J.C	Hydrological Decision Support Framework (HDSF) - Initial Design	<i>Water SA</i> , 32(4): 465-472
2006	Kiker, G.A., Clark, D.J., Martinez, C.J. and Schulze, R.E	A Java-based, Object-Oriented Modelling System for Southern African Hydrology.	<i>Transactions of the ASAE</i>
2006	Moult, N.G., Lecler, N.L., Smithers, J.C. and Clark, D.J	A Catchment Scale Irrigation Systems Model For Sugarcane I: Model Development.	The Changing Face of Irrigation in South Africa - South African National Committee on Irrigation and Drainage, Aventura Swadini, Mpumalanga, RSA
2005	Smithers, J.C. and Clark, D.J	Hydrological Decision Support Framework - Initial Design	12th South African National Hydrology (SANCIHHS) Symposium, Johannesburg, RSA