



*Full CV and publications*

## **PHOEBE ELIZABETH BARNARD**

Updated: 19 May, 2020

B.Sc. Honours in Biology, 1983  
M.Sc. in Zoology, 1990 (distinction)  
Ph.D. in Animal Ecology, 1994

Acadia University, Canada  
University of the Witwatersrand, South Africa  
Uppsala University, Sweden

[www.phoebebarnard.com](http://www.phoebebarnard.com)  
<https://consbio.org/people/staff/phoebe-barnard>  
<https://uwbothell.academia.edu/wwwphoebebarnardcom>  
[https://www.researchgate.net/profile/Phoebe\\_Barnard](https://www.researchgate.net/profile/Phoebe_Barnard)

<http://www.acdi.uct.ac.za/acdi/affiliates-people/dr-phoebe-barnard> | [www.fitzpatrick.uct.ac.za/fitz/staff/research/barnard](http://www.fitzpatrick.uct.ac.za/fitz/staff/research/barnard)  
<https://www.facebook.com/Phoebe.Barnard.169>  
[www.pacificbiodiversity.org](http://www.pacificbiodiversity.org)

### ***Synopsis –***

I'm a highly motivated climate change ecologist, conservation biologist, sustainability strategist and environmental planner. From January 2017 through March 2018 the Executive Director of the US-based Pacific Biodiversity Institute, I'm now Chief Scientific and Policy Officer for the Conservation Biology Institute, and Affiliate (full) Professor at the University of Washington, Bothell, as well as honorary research associate of the University of Cape Town.

I've had a wonderful career so far, mostly in southern Africa, spanning academia, government, international organizations and initiatives, and national research institutes. Passionate about biodiversity and climate change globally, especially in Africa and the Americas, I operate almost equally comfortably at two levels, planetary and local, with science and society as the 'lenses' I use to observe.

Until December 2016, I held the posts at the South African National Biodiversity Institute of Lead Scientist for Climate Change BioAdaptation and Head of Biodiversity Futures (the latter one of several programs I've founded). From 2013-2016 I was President of BirdLife South Africa, and I remain Honorary Research Associate at the University of Cape Town, in both the African Climate and Development Initiative (ACDI) and the Centre of Excellence at the FitzPatrick Institute of African Ornithology.

On science: my main scientific interests are in the spatial and temporal responses of biodiversity and ecosystems to global change. Through 2016, I ran for 9 years a research team jointly between a university research institute and a government funded science-policy institute, to understand the vulnerability and adaptation of endemic species to complex global changes. To understand their responses, I used biogeography, population, community, behavioural and evolutionary ecology lenses, and collaborated with modellers, geneticists, and statistical ecologists.

On society: my main interests are in envisaging societal and environmental futures, in enabling powerful policy change, and in bringing about (peaceful) tipping points for a new economy and sustainable society. Science is a key element in the sustainability transition ahead, but only really quite a small one. Far greater elements are economics, human needs and wants, perception, emotion, faith and how ordinary people make decisions in complex situations. To understand these issues in Africa, I used systems analysis, horizon scanning, trends analysis, early warning systems, citizen science, and complex models (in collaboration with modellers!).

My work blends strategic planning, leadership, research, teaching, publication, writing, editing, public speaking, mentorship and citizen science. I teach young scientists and implementers in spatial ecology, biodiversity conservation, land use planning, climate change, environmental policy, and leadership. I have been fortunate to work with some of the best minds on the planet, and I hope a smidgen of their ideas and skills have rubbed off.

Apart from my day job, I'm a loving parent (to Cat and Julia Barnard Simmons) and wife (to filmmaker John Bowey), a climber of active volcanoes, a modest mountaineer, haphazard trail runner, community volunteer, and film co-producer. I love good music, eclectic and diverse people, beauty and diversity in nature, and yummy vegan cuisine.

## BACKGROUND and CONTACTS

Birth: 10 June 1961, Massachusetts, USA  
Residence: Citizen of USA, permanent resident of Namibia and South Africa  
Permanent base: Mount Vernon, Washington State, USA  
Tel +1 360 914 2307 (USA mobile)  
[Phoebe.barnard@consbio.org](mailto:Phoebe.barnard@consbio.org) (professional email)  
[phoebebarnard2018@gmail.com](mailto:phoebebarnard2018@gmail.com) (personal email)

## CURRENT POSITIONS

- Oct 2018- **Conservation Biology Institute: Chief Scientific and Policy Officer.** <http://consbio.org/>. I work within CBI's leadership team to advance and elevate its scientific, policy and communications strategy. I'm also adapting a successful model of evidence-based biodiversity decision support from southern Africa to pilot as a broad regional Cascadia bioregional coalition of agency, university, citizen science, nonprofit and corporate partners (seeking funding).
- March 2017 - **University of Washington, Bothell: Affiliate Professor** (conservation biology, environmental futures). This is an unsalaried position at full professorial level.
- 2013-present: **Univ of Cape Town, African Climate and Development Initiative: Honorary Research Associate.** I collaborate with ACDI on environmental futures, and co-supervise a 'biodiversity futures' PhD student, Lavinia Perumal, with ACDI Director/UCT Pro Vice Chancellor Prof Mark New and IIASA colleagues Matthias Jonas and Wei Liu. This is an unsalaried position.
- 2005-present: **University of Cape Town (UCT), DST/NRF Centre of Excellence at the FitzPatrick Institute of African Ornithology: Honorary Research Associate.** From 2008-2016 I led an international joint research program on climate change vulnerability and adaptation of fynbos endemic birds. From 2007-2012 I coordinated the climate change and conservation module of UCT's highly regarded MSc Course in Conservation Biology, and thereafter contributed annually as a guest lecturer on climate vulnerability and adaptation, national and global public policy in biodiversity and climate, conservation leadership, negotiation skills and conflict resolution. I still co-supervise postdocs and students. This is an unsalaried position.

## EARLIER PROFESSIONAL APPOINTMENTS

- June-Sept 2018: **Center for Large Landscape Conservation: Senior Science-Policy Consultant.** <http://largelandscapes.org/people/phoebe-barnard/>. I worked to advance the global and regional ecological connectivity policy work of the IUCN World Commission on Protected Areas' Connectivity Conservation Specialist Group, which the CLLC chairs. I helped establish a Marine Connectivity Working Group and advanced a global investment policy review of linear transportation infrastructure for the Transport Working Group. This was a half-time position, funded by the Packard Foundation.
- 2017-2018: **Pacific Biodiversity Institute (PBI): Executive Director.** I was the second and final executive director of this thinly-resourced nonprofit, from January 2017-March 2018. With the board of directors of PBI, I decided in 2018 to dissolve the organization and transition its programs to bigger and better-resourced organizations, for better critical mass and conservation impact.
- 2005-2016: **South African National Biodiversity Institute (SANBI): Principal (2005-14) & Lead Scientist (2014-16), Climate Change Adaptation, and founding Biodiversity Futures Program Head (2016),** Kirstenbosch Research Centre. This was an exciting post at an internationally respected institute. As Lead Scientist, I did national and institutional strategic planning for biodiversity futures and climate vulnerability science in biodiversity. I worked especially on global change futures, climate vulnerability of endemic species, and the roles of research, citizen science and partnerships in conservation.

Our biodiversity futures work explicitly confronted the large-scale, societal curve balls of technology, infrastructure, public policy and governance which increasingly undermine our conventional efforts to conserve species and ecosystems. From late 2015 through 2016, I put together a research team to work with systems analysis and modelling partners at IIASA and the universities of Stellenbosch, Boston, Maine, Queensland and Cambridge to tackle emerging issues and model plausible global, African and South African futures. I also restructured SANBI's approach to climate change bioadaptation research and integrated its climate change work across this national institute.

I also led a joint SANBI/University of Cape Town research team on bird vulnerability to climate change and land use change (biogeography, palaeoenvironments, fire and invasion biology). This team included postdocs, PhD and MSc students. I developed and implemented research programs, media outreach and fundraising. Our research strongly supported policy and planning needs, focused on vulnerability and adaptation of African biodiversity to rapidly changing landscapes, and drew on citizen science projects which I helped launch and fund. I've also coordinated numerous technical, scientific and policy fora on global change, including the international scientific program of South Africa's National Climate Change Conference in 2005, opened by the Deputy President. I've been very involved in pan-African capacity building, mentorship and media.

- 2016: **Stellenbosch Business School, Institute for Futures Research: Honorary Research Associate.** I initiated this new collaboration to enable stronger dialogue between SANBI, UCT and the IFR on environmental, policy and economic futures in Africa.
- 2003-2005 **South African National Biodiversity Institute (SANBI): Scientific & technological coordinator, Global Invasive Species Program Secretariat.** This 18-month contract brought me to South Africa to lead the science aspects of the Global Invasive Species Program, a partnership between the IUCN, The Nature Conservancy and CABI. I produced 6 regional workshop reports and a synthesis, as well as contributing to GISP's work with the Convention on Biological Diversity and the Global Strategy for Plant Conservation.
- 1994-2003 **Ministry of Environment and Tourism, Directorate of Environmental Affairs: Founding National Coordinator, Namibian National Biodiversity Program.** This senior position (*de facto* director) involved a great deal of autonomy and responsibility in DEA, the Namibian Government's environmental policy and planning directorate. I led strategic national planning, coordination, policy formulation, analysis and drafting; I chaired the National Biodiversity Task Force (BDTF) and 4 of its 18 working groups. I was responsible for coordinating, drafting and editing Namibia's national biodiversity strategy and action plan, biodiversity country study and scientific outputs based on these; developing, implementing and overseeing biodiversity research and conservation projects; workshop organization and facilitation; supervising professional and administrative staff, trainees and consultants; team-building among national biodiversity scientists, economists, lawyers and resource managers; proposal development and fundraising; technical and policy advice to senior national politicians; and negotiation on behalf of Namibia at meetings of the Convention on Biological Diversity (CBD), Southern African Development Community (SADC) and other fora. I was CBD national focal point, 1997-2002.
- 2002-04 **IUCN Botswana: Technical advisor,** biodiversity strategic planning (18 months). I advised a national consultancy team contracted via IUCN by the National Conservation Strategy Agency on the review of Botswana's national biodiversity strategy and action plan, country study and information clearing-house mechanism.
- 2001 **Ministry of Environment and Tourism, Directorate of Environmental Affairs: Founding National Coordinator, Namibian National Climate Change Program.** At the same time as my responsibilities above, running the National Biodiversity Program, I established the Namibian Committee on Climate Change and a public forum, set up a national program in the Directorate of Environmental Affairs, and ran it for just under a year.

- 1996 **Land Use Planning Training Program / DANCED, Namibia: Lecturer**  
Course taught: Sustainable land use planning (one week) to Namibian land-use planners.
- 1995, 2014 **Tropical Biology Association, Cambridge, UK: Course coordinator & lecturer.** I coordinated and/or lectured on postgraduate tropical ecology and conservation biology courses (one month, Uganda and Tanzania) for African and European postgraduate biologists from 12 nations.
- 1993-94 **Zoology Department, Uppsala University, Sweden: Doctoral researcher.** I wrote publications and a PhD thesis from my work on ornamented African passerine birds with collaborators from Oxford & Cambridge Universities on a Fulbright scholarship, and completed exams and coursework.
- 1993 **Zoology Department, Trondheim University, Norway: Guest lecturer (1 week)**  
Course taught: Advanced sexual selection, to Norwegian MSc students
- 1993 **Forestry Training Program / FINNIDA, Namibia: Guest lecturer (3 days)**  
Course taught: Sustainable resource management to Namibian foresters
- 1989-91 **Department of Zoology, University of Namibia: Lecturer (2.5 years)**  
Courses taught: Evolution, biogeography and speciation; coevolution; life-history strategies; population ecology; conservation biology; integrated pest management; community ecology; human ecology; ornithology; ichthyology; arthropod reproduction & development; scientific method & statistics. Ran a numeracy component of a university bridging year for teachers; very involved in transformative committee work.
- 1989 **Department of Zoology, University of Namibia: Guest lecturer (2 months)**  
Courses taught: Conservation biology, human ecology
- 1987-88 **Department of Zoology, Univ of the Witwatersrand, Junior lecturer**  
Courses taught: Conservation biology and resource politics (founded the course)
- 1987 **University of the Witwatersrand: Histology lab demonstrator (8 weeks),** undergrad med students
- 1985-87 **University of the Witwatersrand: Ecology field lecturer (week-long trips),** undergrad students

## PROFESSIONAL MENTORING – YOUNG AFRICAN SCIENTISTS

The nurturing and inspiration of young scientists has been deeply important to me since my first job at a small African university, University of Namibia, where some students struggle against long odds to get to university from humble rural beginnings. Women especially often suffer repeated obstacles – financial, cultural, health - to their quest for education.

Postdoctoral fellows, PhD students, MSc students, BSc (Hons) students supervised through the South African National Biodiversity Institute (SANBI) & University of Cape Town (UCT), University of Stellenbosch (SU) or University of Kwazulu-Natal (UKZN):

<b>Postdoctoral fellows:</b>	Dr Clelia Sirami	(2007-10)
	Dr Alan T.K. Lee	(2011-16)
	Dr Samuel Temidayo Onisubi	(2014-19) – all UCT
<b>PhD students:</b>	Daniël Cloete	(2015-18, UCT)
	Lavinia Perumal	(2016-18, UCT)
<b>MSc student:</b>	Fleming Campbell	(2016-18, UCT)
<b>Past PhD students:</b>	Sebataolo Rahlao	(2007-10, SU)
	Thabiso Mokotjomela	(for first year 2007, SU)
	Zingfa Wala	(for first two years 2011-12, UCT)
	Sally Hofmeyr	(2008-12, UCT)

	Anina Heystek	(2013-16, SU)
	Mukundi Mukundamago	(2016, studies truncated)
	Pfananani Ramulifho	(2016-18, UKZN, affiliated student)
<b>Past MSc students:</b>	Loïc Chalmandrier	(2008-09, Ecole Normale Superieure)
	Anina Heystek	(2011-12, SU)
	Beth Mackay	(2013-14, UCT)
<b>Past Hons students:</b>	Anina Heystek	(2011, SU)
	Lara Croxford	(2011, SU)
	Will Wyness	(2011, UCT).

#### Other mentoring

- **Mentor, Coalition Wild**, IUCN's global mentorship network on biodiversity & protected areas.
  - **Staff mentor, Conservation Biology Institute**
  - **Initiator and mentor** of SANBI Climate Change Science Journalism Internship Program (and first intern, UCT conservation biology MSc student Kimon de Greeff 2012-13).
  - I developed concept for **Global Invasive Species Program's international internship-mentorship program** to pair late-career or retired mentors with young professionals to transfer invasive species management or policy skills, approaches and wisdom. This model was applied in 2010 within South Africa's EDRR Program.
  - Am an **informal mentor** for younger colleagues in SANBI's Climate Change Adaptation Division and elsewhere in the institute.
  - **Panellist or examiner** for the following proposal and/or thesis defences:
    - **PhD students** Amrei von Häse and Mao Angua Amis (UCT, 2008)
    - **MSc student** Marius Kieck (2009, Stellenbosch)
    - **MSc student** Phineas Sadondo (2014, UCT)
    - **MSc students** Emmanuel Nwankwo, Olayinka Daodu, Braimoh Bukola, Olumoh Abdulrahman, Kongvong Shedrach, Agbo Boniface, Andong Felix and Benedictus Freeman (2014, University of Jos, AP Leventis Ornithological Research Institute).
  - I also informally mentor other **PhD, MSc, Honours students and young professionals** (Stephen Awoyemi, Dr Folaranmi Babalola, Joyce Katjirua, Dr Karine Payet, Morgan Commins, Krista Oswald, Jennifer Angoh, Josheena Naggea, Kristina Bartowitz, Lucila Castro, Onajite Henrietta Abigail Okagbare).
- **Society for Conservation Biology (Africa Section) 2004-2015** - I was founding chair of the pan-African 'Young Women Conservation Biologists' working group which supports, networks and encourages women conservation biologists in their careers. As the committee developed, I handed chairmanship to co-chairs in Cameroon, Nigeria and Tanzania, but remain an active member, mentoring young early-career women and students via email, helping shape ideas, and profiling up-and-coming conservation biologists in the Africa section newsletter. Until 2015 I chaired the Africa Section YWCB's Awards Panel, which since 2007 has made an annual non-monetary award to an outstanding and passionate young African woman conservation biologist. I help students to write scientific papers and proposals, and to remain focused and passionate about their work in difficult conditions. I've also been on the Africa Section's Mentoring Program Advisory Committee.
  - **Tropical Biology Association 1995 and 2014** - Organized and ran a month-long TBA course 1995 (Uganda) and contributed as core teacher to another in 2014 (Tanzania). TBA's programs train 12 African and 12 European postgraduates to learn conservation biology, evolution and ecology, global change biology and detailed field research skills. I give ongoing mentorship to young graduates.
  - **National Biodiversity Program 1994-2003** – Nurtured young colleagues in on-the-job training: biodiversity inventory, bird ringing, policy analysis, career development, international negotiations!
  - **University of Namibia 1989-1991** – Was involved in several committees and initiatives to improve the teaching/learning environment, introducing regular student course evaluations of lecturers and devoting much time to helping students think and write independently.
  - **University of the Witwatersrand 1988-89** – I set up and ran its first Conservation Biology course for 2 years, devoting much time to helping students write and think independently.

## COLLABORATIONS

- **Environmental and Biodiversity Futures - International Institute for Applied Systems Analysis (IIASA), Universities of Stellenbosch, Cape Town, Cambridge and Boston (2016-18)** – For the Biodiversity Futures Program at SANBI, I initiated research partnerships with three research groups (ASA, RISK and ESM) at IIASA; with the Centre for Complex Systems in Transition and Business School (Institute for Futures Research) at the University of Stellenbosch; with the African Climate and Development Initiative at the University of Cape Town; with Bill Sutherland’s global conservation horizon-scan team at the University of Cambridge; with the Frederick S. Pardee Center for Study of the Longer-Range Future at Boston University; and (nascently) with the Climate Change Institute at the University of Maine, Orono. The work initially focuses on application of modelling and systems analysis tools to biodiversity loss and ecosystem service and function change as a result of large infrastructure developments in Africa and South Africa due to foreign direct investments, such as the Forum on China-Africa Cooperation.
- **Universities of Durham, Cambridge, Queensland, Magallanes, North Texas, Cape Town, Wildlife Conservation Society and Australian Dept of Environment (2015-16)** – I was Principal Investigator and chief fundraiser for the Gondwana Edges Project, a back-burnered three-year interdisciplinary research collaboration on the vulnerability of terrestrial endemic species at the continental margins of Africa, South America, Australia and New Zealand, using topographic, microclimatic and coupled oceanic-atmosphere-land circulation models. My team consists of senior and young up-and-coming specialists in the fields of global change biology, conservation planning, policy and implementation, microclimate modelling, population and community ecology, spatial statistics and oceanography. If funded, we will work at the southern and western continental margins of South Africa, Patagonia, New Zealand’s South Island and Australia. The collaboration was launched at the Southern Connection Congress 2016 in Punta Arenas, Chile, but in 2017 was back-burnered while I took the helm of the Pacific Biodiversity Institute, initiated major new coalitions and raised funds. We hope to raise USD370 000 in research funds across participating institutes, and engage bright students and postdocs on solving problems.
- **University of Durham, University of Cambridge, University of Cape Town – Climate change and bird vulnerability (2008-15)** - In 2008 I initiated this highly productive collaboration with Professor Brian Huntley (Durham) and Professor Rhys Green (Cambridge) which used climate envelope modelling and palaeoecological modelling approaches to understand spatial and temporal bird vulnerability in southern Africa, especially in the fynbos biodiversity hotspot. It was funded by the Royal Society and Leverhulme Foundation (UK), with minor support from the South African National Biodiversity Institute and my National Research Foundation incentive grant. Other researchers involved in this collaboration have been Dr Y Collingham, Dr SG Willis, Dr D Hole and Dr O Beveridge (all Durham), Professors PG Ryan, LG Underhill and the late PAR Hockey (all UCT), as well as my postdoc Alan Lee. This collaboration has spawned 6 papers in high-impact journals, with another two in prep.
- **University of Cape Town and partners – Intra-African bird migration – genetics, ecology, and vulnerability to climate and land use change (2013-ongoing)** – In 2011 I initiated this collaboration on migration with the late Prof Phil Hockey, although it only gained significant momentum after the Pan-African Ornithological Conference in 2012, where I met Dr Samuel Temidayo (“Dayo”) Osinubi. After Phil Hockey’s death in 2013, Prof Peter Ryan and I have co-supervised Dayo Osinubi’s postdoctoral leadership of the program. The research is done in collaboration with geneticist Desire Dalton at the National Zoological Gardens of South Africa (see <https://theconversation.com/sights-are-set-on-understanding-bird-movements-across-africa-58943>) and [http://www.fitzpatrick.uct.ac.za/fitz/research/programmes/understanding/intra-african\\_bird\\_migration](http://www.fitzpatrick.uct.ac.za/fitz/research/programmes/understanding/intra-african_bird_migration)).
- **University of Stellenbosch, University of Cambridge, University of Cape Town, Potsdam University, University of KwaZulu-Natal (2011–16) – Fynbos bird pollinators, proteas and ericas** - I collaborated with Professor Anton Pauw (Stellenbosch) to co-supervise student Anina Heystek from BSc Hons to PhD levels. I started a collaboration with Dr Claire Spottiswoode (Cambridge) on ericas and sunbirds but left the country before this could develop. I have also collaborated with Professor Jeremy Midgley (UCT) to co-supervise BSc Honours student William Wyness on sugarbirds and proteas, and with Professor Frank Schurr (Potsdam) and his German colleagues and students on sugarbirds and proteas. In 2011 I collaborated with PhD student Ross Turner (UKZN) on a paper on a novel pollinator of *Erica halicacaba*.

- **University of Queensland (2011–16) – climate change and resources** - In 2011, 2014 and 2015 I agreed to host Professor Martine Maron on her sabbatical and other research visits. This led to one paper in *Diversity and Distributions* and a symposium at the Southern Connection Congress in January 2016. We plan more papers on resource constraints under climate change.
- **University of Cape Town, University of Stellenbosch, US Geological Survey (2010–14) – Climate change and bird ranges** – I was a participating partner with Professor Res Altwegg (UCT) on his National Research Foundation’s Blue Skies and Competitive Grants programs, also involving statistical ecologists Dr Birgit Erni and Professor Les Underhill (both UCT), Professor Guy Midgley (formerly SANBI, now University of Stellenbosch) and Dr James D Nichols (USGS). This collaboration led to a paper in *Proceedings of the Royal Society B*, as well as a number of PhD students and postdocs.

## FELLOWSHIPS AND AWARDS

- 2019 **Esther Forbes (1907) Award for Distinguished Professional Achievement (Bancroft School, USA)**  
*For pursuing big-picture global and national initiatives broader than science.*
- 2017 **Affiliate Full Professorship (University of Washington)** awarded by university panel on motivation by Professors Martha Groom and David L Stokes. University of Washington is ranked 9<sup>th</sup> in the world by the 2017 Center for World University Rankings.
- 2002 **Distinguished Achievement Award (Society for Conservation Biology)**  
Plaque citation: *“For her extraordinary contribution to conservation in Namibia, especially for putting science into practice”*
- 1993-94 **Fulbright Fellowship - Doctoral Grant (Fulbright Commission, USA/Sweden)**  
*For PhD studies in evolutionary biology*
- 1991 **Faculty Ad-hoc Research Grant (University of Namibia, Namibia)**  
*For preparation of a book chapter for Oxford University Press*
- 1988 **Leslie Brown Memorial Award (Raptor Research Foundation, USA)**  
*For research on the conservation and ecology of African birds of prey*
- 1987 **Postgraduate Research Bursary (RSA Foundation for Research Development)**  
*For MSc studies in behavioural ecology and evolution*
- 1984-86 **University Senior Bursary (University of the Witwatersrand, RSA)**  
*For MSc studies in behavioural ecology and evolution*
- 1982 **Research/Education Grant (Hawk Mountain Sanctuary, USA)**  
*For an institutional internship in conservation research and education*
- 1979-80 **University Scholarship (Acadia University, Canada)**  
*Partial scholarship for first undergraduate year*
- 1979 **Creative Writing / Journalism and Studio Art Awards (Bancroft School, USA)**  
*For achievement in creative writing and fine arts (especially painting and drawing)*

## PUBLIC SPEAKING and LECTURING on SUSTAINABILITY and CLIMATE CHANGE

Increasingly, the urgent issues of our day compel us to move society towards a tipping point of sustainability - to try to influence positively the way others work, live and consume. With the involvement of top colleagues, I’ve designed, run and delivered courses for the general public, provincial and municipal government officials, and graduate conservation biologists. Some recent courses and lectures (many organized by University of Cape Town) are:

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- **FutureFest (sustainability options and pathways festival) 2018:** The Future Needs You: Citizen Science in a Rapidly Changing World. Public workshop, Earth Day 2018, Anacortes, Washington.
- **University of Cape Town, Conservation Biology MSc course 2007-16:** Climate change and conservation biology, conservation and climate policy, and conservation leadership and negotiating skills – module coordinator 2007-2012, lecturer 2013-16 (12-15 graduate scientists).
- **University of Cape Town, Globalization Honours course, 2009-16:** Globalization, and ecosystems (c. 16 graduate students in economics, law, science and social sciences)
- **University of Cape Town, EGS Climate Change Short Course, 2009-16:** Climate change vulnerability and adaptation across sectors (30 mid-career professionals, all fields)
- **University of Cape Town, Summer School 2008:** Climate change: transforming society (c. 200 participants - civil society, corporate, agricultural, educational, technology sectors)
- **Sustainability Institute 2008:** Climate change preparedness, maximizing resilience in ecosystems and biodiversity (c. 20 senior planners, Western Cape Premier's Office)
- **South African Local Government Association 2008:** Understanding climate change risks and impacts (c. 34 mostly senior municipal planners and councillors, Western Cape)
- **Western Cape Dept of Environmental Affairs and Development Planning 2009:** Understanding climate change risks and impacts (c. 80 mostly senior provincial planners)

#### Media clips and interviews (a smattering):

- **Social change for sustainability** – panel discussion of Franny Armstrong's film, The Age of Stupid: <https://www.youtube.com/watch?v=Mx5srn8Skfo> (2010)
- **On Homeward Bound**, an Antarctic global science women's leadership initiative for social change, for which I was one of the first 47 women selected worldwide: <https://www.youtube.com/watch?v=oNqxpvdWZcc> (2015)
- **Film interviews for fynbos conservation projects** by Bird Matters (2016), SANBI (2015); Lemur Productions (2013), Big Fish School of Digital Filmmaking (2013). I provided logistic/ research support for BBC (2013) and Homebrew Films (2014). I give regular national radio interviews to veteran and young reporters and commentators in South Africa.
- **Media production:** As part of my interest in engaging mainstream society in nature and biodiversity conservation, I'm a business partner (with my filmmaker husband John Bowey) of the conservation and education storytelling work for Transmediavision. John and I also founded and produced Bird Matters (2015-17), an online biweekly news magazine about birding, bird photography and conservation for the general public.

#### INSTITUTIONAL REVIEWS and other INTERNATIONAL RECOGNITION (last decade only)

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|--------------|--|
| Dec 2017 -   | <b>American Association for the Advancement of Science (AAAS)</b> "SciLine" platform to link experts in scientific fields with journalists to improve media reporting – invited member |
| Dec 2017 -   | <b>United Nations Development Program (UNDP)</b> "BES-Net" platform to link experts on biodiversity and ecosystem services with journalists and others – invited member                |
| Sept 2015-20 | <b>University of Zürich, Switzerland, University Research Priority Program "Global Change</b>  |



**and Biodiversity” (UZH-URPP-GCB) Scientific Review Panel** (Prof Ghassem Asrar, former NASA Lead Scientist Administrator, and myself)

- 2013-18 **United Nations Environment Program – World Conservation Monitoring Centre’s ‘African Leadership Group,’ invited member**, National Biodiversity Strategy & Action Plan 2.0 Project, expert advisor to African countries on second round of national strategies and action plans
- Nov 2012 **United Nations Environment Program horizon-scanning 2012 Foresight Report, Invited Reviewer**, “*21 Issues for the 21<sup>st</sup> Century: Results of the UNEP Foresight Process on Emerging Environmental Issues.*”
- July 2012 **National Geographic Expert Review Panel**, Cheetah Conservation Fund (chair Prof Tom Lovejoy)
- March 2007 **University of Cape Town, South Africa, Conservation Biology Masters of Science Program, Review Team** (Prof David Cumming, Prof Graeme Cumming, Dr Colin Attwood, Prof Morne du Plessis, Dr Peter Ryan and myself)

## OWN EDUCATION

### Ph.D. degree, 1992-1994, Uppsala University, Sweden

*Ornament and body size variation in some African passerine birds* (ISBN 91-554-3255-7)

An experimental and correlative study of evolution, behaviour and ecology of African passerines - generated 6 refereed and several oral papers (see Publications).

**Ph.D. courses:** Natural selection & genetic variation; GIS & remote sensing (Nordic Council for Ecology); Biological diversity (Botanical Ecology Institute, Uppsala University)

### M.Sc. degree, 1984-1989, University of the Witwatersrand, South Africa

*Comparative mating systems and reproductive ecology of the African whydahs, Vidua*

This was a study (awarded with distinction) of sexual selection in these brood parasitic finches, using experimentation and correlation. It generated 7 refereed and 4 unrefereed papers, and 5 oral papers for seminars or conferences (see Publications).

**Masters courses:** Mainframe-based statistics and operating languages (Xedit, CMS, SAS)

### Postgraduate independent research, 1983-1984, Drakensberg escarpment, South Africa

*The foraging ecology and energetics of three African raptors in a montane grassland*

This was a 7-month independent (non-degree) study of foraging energetics and habitat use of three birds of prey. It generated two refereed and one unrefereed papers, and an oral paper on habitat use and fire management at a symposium organized to assist countries in developing conservation policy. See Publications.

### Undergraduate independent research, 1982, Hawk Mountain Sanctuary, USA

*Population ecology and reproductive failure in American kestrels, Falco sparverius*

In a four-month research and public education internship, I studied mortality in a population of American kestrels *Falco sparverius*, later leading to a refereed short chapter in an international technical book (see Publications). Academic credit (grade A) was granted by Acadia University. I was also a public environmental educator there, see Teaching Experience.

### B.Sc. honours degree, 1979 – 1983, Acadia University, Canada

*Foraging behaviour and energetics of northern harriers, Circus cyaneus (awarded with distinction)*

This study in eastern Canada quantified the diet, behaviour and energetics of breeding harriers (birds of prey), and criticized logical weaknesses in short-term energetics studies. Together with related work, this thesis led to five refereed papers and four oral papers (see Publications).

### Secondary School, 1975-1979, Scituate High School and Bancroft School

1975-76 Scituate (Massachusetts, USA) public high school  
1976-79 Bancroft School (Worcester, Massachusetts, USA)

Graduated *cum laude*, highest honours in final year, prizes in writing and art, advanced university placement in biology, maths, and art. Managed waste recycling depot as a community service, was biology department lab assistant, was assistant marine biology teacher for summer field course. Intern with Regional Environmental Council, an environmental quality monitoring group.

### Internet self-study and other relevant courses

- 2014-15 Greening the Economy: Lessons from Scandinavia <https://www.coursera.org/course/greeningtheeconomy>
- 2015 Marine and Antarctic Science <https://www.open2study.com/courses/marine-and-antarctic-science>
- 2015 Identification of Fynbos Plant Species (Kirstenbosch, Cape Town, South Africa)

### **EDITORIAL EXPERIENCE**

- 2016- Editorial board, subject editor, **Ecography** (the Nordic Society, Oikos), latest IF = 5.36.
- 2006-14 Editorial board, **Animal Conservation** (Institute of Zoology, London), latest IF = 3.286.
- 2008- Editorial board, **African Journal of Ecology** (Blackwells), latest IF = 0.853.
- 2013-16 Editorial board, **Climate Change Responses** (BioMedCentral, London). (Now closed for publication.)
- 2005-11 Editorial board, **Biology Letters** (The Royal Society, UK), latest IF = 3.425. Co-edited 2008 special feature of *Biology Letters* on global change and biodiversity (with Wilfried Thuiller), top download
- 1993-97; 2016-19 Editorial board, **Ostrich – Journal of African Ornithology**, latest IF = 0.44.
- 1986-88 Co-founder and copy editor, **GABAR – Journal of African Raptor Biology**
- 1996-97 Guest editor, special Namibian issue of *Biodiversity & Conservation* (vol. 7, no. 4, 1998)
- 1987- Scientific referee for (alphabetical order): **African Journal of Ecology, African Zoology, Animal Behaviour, Behavioral Ecology, Biodiversity & Conservation, Biological Conservation, Cimbebasia, Conservation Biology, Conservation Letters, Diversity & Distributions, Ecological Applications, Emu (CSIRO), Environmental Management, Environmental Research Letters, Global Change Biology, Global Ecology & Conservation, Ibis, International Journal of Biodiversity and Conservation, Journal of Arid Environments, Journal of Biogeography, Memoirs of the Geological Survey of Namibia, Nature Climate Change, Ostrich, Pacific Conservation Biology, Proceedings of the National Academy of Sciences USA, Proceedings of the Pan-African Ornithological Congress, South African Journal of Botany, South African Journal of Wildlife Research, South African Journal of Science, Trends in Ecology & Evolution**
- 2012-16 Co-editor, book in preparation on inspiring African women in conservation biology (with Stephen Awoyemi and Amber Abrams, all voluntary, slow to emerge!)
- 1984- Editorial referee for colleagues' environment & development-related books / manuscripts
- 1999-02 Co-edited/authored national biodiversity strategy & action plan, **Biodiversity & Development in Namibia**
- 1995-98 Edited/co-authored book, **Biological diversity in Namibia: a country study**

### **MEMBERSHIP OF OTHER EXPERT COMMITTEES, PANELS AND BOARDS**

- 2015 - Society for Conservation Biology, Urban Conservation Working Group
- 2014- Society for Conservation Biology, Conservation Marketing and Engagement Working Group
- 2013- African Leadership Group, UNEP-WCMC-IIED Program on African National Biodiversity Strategies and Action Plans Round 2.0
- 2012- National Scientific Advisory Committee on the Convention on Migratory Species
- 2007-08 Provincial Climate Change Committee, Western Cape Province, South Africa
- 2006- South African National Biodiversity Monitoring & Reporting Framework Advisory Team

2005-07 Scientific Program & Plenary Committees, Society for Conservation Biology 2007 Conference  
 2005-06 Western Cape Climate Change Reference Group (now amalgamated into provincial committee)  
 2004- Society for Conservation Biology (Africa Section) Young Women Conservation Biologists (YWCB) Committee (chair 2004-05) and YWCB Awards Panel (chair 2007-2014)  
 2004-05 DST Centre for Invasives Biology Board, Stellenbosch University (declined invitation to chair)  
 2004-05 Working for Water Nurseries Partnership Steering Committee  
 2003 Global Ballast Water Management Program Regional Task Force  
 2002 IUCN Commission for Ecosystem Management (declined invitation to be southern African vice-chair)  
 2002-03 (Alternate) Benguela Current Large Marine Ecosystem Program Steering Committee  
 2001-03 Millennium Ecosystem Assessment - Global Scenarios and Sub-Global Working Groups  
 2001-03 (Founding member) Namibian Committee on Climate Change (govt); Contact Group on Climate Change (public forum)  
 2000-05 Millennium Ecosystem Assessment Global Board, Executive Committee (2003-05), and selection panels  
 2000-03 Succulent Karoo Ecosystem Planning (SKEP) Biodiversity Advisory Group  
 1999-03 Namibia's Program to Combat Desertification (Phase III) Steering Committee  
 1999-03 Southern African Botanical Diversity Network, Namibian National Working Group  
 1997-99 Namibian Climate Change Advisory Committee (interim)  
 1997-01 Benguela Current Large Marine Ecosystem Program (interim) Management Committee  
 1994-2003 (Founding member) Namibian National Biodiversity Task Force (and most of its 18 working groups)  
 1988-92 African Raptor Information Centre Advisory Board

I have also joined many ad-hoc advisory groups for project and program formulation and evaluation, and declined several others, e.g. the International Council for Science (ICSU) grants review committees (Paris, 2006).

### **ORGANISATION OF SCIENTIFIC CONFERENCES, SYMPOSIA, COURSES AND WORKSHOPS**

In the course of my work, I have organized at least 20 national or international conferences, symposia and consortium meetings (including some very high level, opened by prime minister and a deputy president), and am adept at doing so. A full list of these meetings is available on request.

### **RESEARCH EXPERIENCE BY HABITAT**

2004- Montane fynbos (Southwestern Cape, South Africa)  
 1996-03 Succulent karoo and southern Namib desert (southwestern Namibia)  
 1995- Tropical arid savanna/ Nama-Karoo with granite mountains and domes (central Namibia)  
 1994 Temperate open woodland (southeast Sweden)  
 1990-02 Hyperarid desert, coastal dunes (Sandwich Harbour, Sylvia Hill and environs, Namibia)  
 1990-95 Semiarid *Acacia* savanna/rocky highland plateau (Windhoek district, central Namibia)  
 1988-89 Subtropical marula/knobthorn lowveld savanna (Sabi Sand Reserve, South Africa)  
 1985-87 Subhumid *Acacia* savanna/agricultural ecotone (Springbok Flats, South Africa)  
 1985-87 Subtropical ephemeral floodplain (Nyl Floodplain, South Africa)  
 1984-86 Temperate estuary, fynbos and coastal dunes (Wilderness Lakes Area, South Africa)  
 1983-84 Temperate montane fire-climax *Themeda* savanna (Natal Drakensberg, South Africa)  
 1982 Temperate deciduous woodland/agricultural ecotone (Appalachian Mountains, USA)  
 1981 Temperate maritime freshwater wetland (Tantramar Marsh, Bay of Fundy, Canada)

### **INTERESTS:**

Sustainability tipping points in global society and the economy, African biogeography and conservation biology, global and African resource politics and development, climate change, future scenarios, behavioural and evolutionary ecology, environmental & science education, tropical resource ecology, mountain & wetland ecosystems, bird ringing, environmental toxicology, volcano-climbing, trail running, sailing, long-distance cycling, mountain & rock climbing, ashtanga and kundalini yoga, skydiving, classical & folk music, vigorous debates, iconoclasts, physics, filmmaking, innovation and the history of ideas.

### **REFEREES – Any or all of the following could be approached for comment:**

Dr Craig Olson, Board President: Pacific Biodiversity Institute, 96a Benson Creek Drive, Twisp, Washington 98856, USA (colleague, former board president). Tel. +1 760 518 0364 or +1 509 997 0446, [craig96a@gmail.com](mailto:craig96a@gmail.com).

Dr Diana Gale, Advisory Council member: Pacific Biodiversity Institute, Seattle, Washington, USA (colleague, advisor). Tel. +1 206

321 9422, [dianagale3@gmail.com](mailto:dianagale3@gmail.com).

Prof Richard M Cowling, Research Professor: Terrestrial Ecology Research Unit and Department of Botany, University of Port Elizabeth, South Africa (colleague and friend). Tel: +27 42 298 0259; +27 41 504 2493; Fax: +27 42 298 0259 or +27 41 504 2317; email: [rmc@kingsley.co.za](mailto:rmc@kingsley.co.za); [btarmc@upe.ac.za](mailto:btarmc@upe.ac.za)

Dr Walt Reid, Former Director: Millennium Ecosystem Assessment, now David and Lucile Packard Foundation (colleague). Email: [wreid@packard.org](mailto:wreid@packard.org), Tel. +1 650 948 7658

Dr Kathy Mackinnon, Chair, IUCN World Commission on Protected Areas, formerly Senior Biodiversity Scientist, The World Bank, Washington DC, USA (colleague and friend) E-mail: [kathy.s.mackinnon@gmail.com](mailto:kathy.s.mackinnon@gmail.com)

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Prof Joel Berger, Wildlife Conservation Society and Colorado State University, Cox Chair of Conservation Biology (colleague and friend). [jberger@wcs.org](mailto:jberger@wcs.org) and [jbergerjb@gmail.com](mailto:jbergerjb@gmail.com)

Prof Beth Kaplin, Dept of Environmental Studies, Antioch University New England, 40 Avon Street, Keene, New Hampshire 03431, USA; also Acting Vice Dean, School of Science, College of Science & Technology, and Acting Director, Center of Excellence in Biodiversity and Natural Resource Management (<https://coebiodiversity.wordpress.com>), University of Rwanda, BP 512, Butare, Rwanda (colleague), tel. +250 788 664 551 or +250 739 505 545, [bkaplin@antioch.edu](mailto:bkaplin@antioch.edu)

Dr Peter W Tarr, Executive Director: Southern African Institute for Environmental Assessment, P O Box 6322, Windhoek, Namibia (former department head). Tel: +264-61-22-0579; Fax: +264-61-25-9183; e-mail: [Peter.Tarr@saiea.com](mailto:Peter.Tarr@saiea.com)

Dr Sem Taukondjo Shikongo, Director of Tourism, Ministry of Environment and Tourism, Namibia (friend, former assistant, former division head). e-mail: [sts@dea.met.gov.na](mailto:sts@dea.met.gov.na), [s\\_shikongo@hotmail.com](mailto:s_shikongo@hotmail.com)

Dr Chris Brown, former Executive Director, Namibia Nature Foundation, Box 245, Windhoek, Namibia (former department head). e-mail: [cb@nnf.org.na](mailto:cb@nnf.org.na), [http://www.bmw-stiftung.de/fileadmin/user\\_upload/Dateien/6.CVs/Chris\\_Brown\\_CV.pdf](http://www.bmw-stiftung.de/fileadmin/user_upload/Dateien/6.CVs/Chris_Brown_CV.pdf)

Prof Bob Scholes, University of the Witwatersrand, School of Animal, Plant and Environmental Sciences (colleague on global change matters and Millennium Ecosystem Assessment) [bob.scholes@wits.ac.za](mailto:bob.scholes@wits.ac.za)

Prof Staffan Ulfstrand, Dept of Zoology, Uppsala University, Villavägen 9, S-752 36 Uppsala, Sweden. (PhD advisor, former departmental head) Fax: +46-18-55-9888; e-mail: [staffan.ulfstrand@ebc.uu.se](mailto:staffan.ulfstrand@ebc.uu.se)

Dr Robert B Payne, Museum of Zoology, University of Michigan, Ann Arbor, MI 48109, USA (MSc external referee) Fax: +1-313-763-4080; e-mail: [rbpayne@umich.edu](mailto:rbpayne@umich.edu)

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## **PUBLICATIONS and SEMINARS: Phoebe Barnard**

[phoebe.barnard@consbio.org](mailto:phoebe.barnard@consbio.org) (w), [phoebebarnard2018@gmail.com](mailto:phoebebarnard2018@gmail.com) (h)

Last updated: 19 May, 2020

- 1. Scientific, technical and popular publications, national policies and strategies, and theses**  
**In reverse chronological order – Unpublished conference presentations are listed below.**  
**Blog articles at <https://www.phoebebarnard.com> and on <https://www.facebook.com/phoebe.barnard.169>.**

### **Forthcoming (in review or in preparation)**

ZIERVOGEL G, BARNARD P, CHAPMAN A, HOLLOWAY A & SMALL J, In prep. Incorporating climate change preparedness into municipal and provincial planning. Draft manuscript on lessons learned from workshop series held in Western Cape, South Africa.

**2020**

LEE ATK, BARNARD P, FRASER M, LENNARD C, SMIT B, OSCHADLEUS HD. 2020. Body mass and condition of a fynbos bird community: investigating impacts of time, weather and raptor abundance from long-term citizen- science datasets. *Ostrich*. <https://doi.org/10.2989/00306525.2019.1683093>.

RIPPLE WJ, WOLF C, NEWSOME TM, BARNARD P, MOOMAW WR, LAW BE, MAAS B. 2020. The climate emergency, forests, and transformative change. *BioScience* 70(6): 446-447. <https://doi.org/10.1093/biosci/biaa032>

## 2019

BARNARD P. 2019. Tracking species in space and time: citizen science in Africa. In: Wilson J & Primack, RB (eds). *Conservation Biology in Sub-Saharan Africa*. Sinauer Associates. Published online 9 September 2019 at <https://www.openbookpublishers.com/product/1013>.

RIPPLE WJ, WOLF C, NEWSOME TM, BARNARD P, MOOMAW WR and 10,205 scientist signatories from 153 countries. 2019. World scientists' warning of a climate emergency. *BioScience*. Published online 5 November 2019. <https://academic.oup.com/bioscience/advance-article/doi/10.1093/biosci/biz088/5610806>.

## 2018

COETZEE A, BARNARD P, PAUW A. 2018. Urban nectarivorous bird communities in Cape Town, South Africa are structured by ecological generalisation and resource distribution. *Journal of Avian Biology* 49(6): doi: 10.1111/jav.01526.

COETZEE A & BARNARD P. 2018. Nectar quandary: surviving the suburbs. *African Birdlife*: July/August 2018: 70-72.

OSINUBI ST, DALTON D, BARNARD P & RYAN P. 2018. A tale of three kings: study of the intra-African migration of the woodland kingfisher. Poster paper, *International Ornithological Congress*, Vancouver, Canada, August 2018.

## 2017

BARNARD P. 2017. Climate change, biodiversity early warning systems, and Africa's future. *Africa Conservation Telegraph* 12 (1). Published January 2017 online at <https://conbio.org/groups/sections/africa/act/climate-change-biodiversity-early-warning-systems-and-africas-future>

BARNARD P, ALTWEGG R, EBRAHIM I, UNDERHILL LG. 2017. Early warning systems for biodiversity in southern Africa – how much can citizen science mitigate imperfect data? *Biological Conservation* 208:183-188 (published online 27 Sept 2016, <http://dx.doi.org/10.1016/j.biocon.2016.09.011>).

CHAMBERS LE, BARNARD P, POLOCZANSKA ES, HOBDAJ AJ, KEATLEY MR, ALLSOPP N & UNDERHILL LG. 2017. Southern hemisphere biodiversity and global change: data gaps and strategies. *Austral Ecology* 42:20-30. (Published online 24 Aug 2016).

LEE ATK, BARNARD P. 2017. How well do bird atlas reporting rates reflect bird densities? Correlates of detection from the Fynbos biome, South Africa, with applications for population estimation, *Ostrich* 88:1, 9-17, DOI: 10.2989/00306525.2016.1219413.

LEE ATK, ALTWEGG R, BARNARD P. 2017. Estimating conservation metrics from atlas data: the case of southern African endemic birds. *Bird Conservation International* (in press): DOI: 10.1017/S0959270916000307.

LEE ATK, WRIGHT D, BARNARD P. 2017. Hot bird drinking patterns: drivers of water visitation in a fynbos bird community. *African Journal of Ecology* 55:541-553.

MACKAY B, LEE ATK, BARNARD P, MØLLER AP, BROWN M. 2017. Urbanization, climate and ecological stress indicators in an endemic nectarivore, the Cape sugarbird. *Journal for Ornithology* 158: 1013-1024. Published online 12 May 2017.

SUTHERLAND WJ, BARNARD P, BROAD S, CLOUT M, CONNOR B, CÔTÉ IM, DICKS LV, DORAN H, ENTWISTLE AC, FLEISHMAN E, FOX M, GASTON KJ, GIBBONS DW, JIANG Z, KEIM B, LICORISH FA, MARKILLIE P, MONK KA, PEARCE-HIGGINS JW, PECK LS, PRETTY J, SPALDING MD, TONNEIJCK FH, WINTLE BC, OCKENDON N. 2017. A 2017 horizon scan of emerging issues for global conservation and biological diversity. *Trends in Ecology & Evolution* 32: 31-40 (published online 9 Dec 2016, DOI: [http://www.cell.com/trends/ecology-evolution/pdf/S0169-5347\(16\)30218-X.pdf](http://www.cell.com/trends/ecology-evolution/pdf/S0169-5347(16)30218-X.pdf)).

## 2016

BARNARD P. 2016. Meet the conservationist: a passion for the ocean – Kerry Sink. *Africa Conservation Telegraph* 10(1). <https://conbio.org/groups/sections/africa/act/meet-the-conservationist-a-passion-for-the-ocean-kerry-sink>. Published online 22 April 2016).

BARNARD P. 2016. Biodiversity horizons. *SANBI Science*. <http://www.sanbi.org/news/biodiversity-horizon>. Published online 29 June 2016.

BARNARD P. 2016. Women in science, changing how the world works. *SANBI Science*. <http://www.sanbi.org/news/women-science-changing-how-world-works>. Published online 27 Sept 2016.

COETZEE A, PAUW A, GEERTS S & BARNARD P. 2016. Do sunbirds like pink flowers? *Promerops, Magazine of the Cape Bird Club* 305:13 (July).

CUNNINGHAM S, MADDEN C, BARNARD P, AMAR A. 2016. Electric crows: power lines, climate change and the emergence of a native invader. *Diversity & Distributions* 22:17-29. (Published online 18-12-2015; published in hard copy Jan 2016)

HUNTLEY B, COLLINGHAM YC, SINGRAYER JS, VALDES PJ, BARNARD P, MIDGLEY GF, ALTWEGG R, OHLEMUELLER R. 2016. Explaining patterns of avian diversity and endemism: climate and biomes of southern Africa over the last 140,000 years. *Journal of Biogeography* 43(5):874-886. (Print May 2016; online Feb 2016). DOI: 10.1111/jbi.12714.

LEE ATK & BARNARD P. 2016. How well do bird atlas reporting rates reflect bird densities? Correlates of detection from the fynbos biome, South Africa, with applications for population estimation. *Ostrich* Received 10 Mar 2016, Accepted 14 Jul 2016, Published online: 08 Nov 2016. <http://dx.doi.org/10.2989/00306525.2016.1219413>

LEE ATK, WRIGHT D, BARNARD P. 2016. Hot bird drinking patterns: drivers of water visitation in a fynbos bird community. *African Journal of Ecology* (in press, 12 Sept 2016).

OSINUBI ST, HAND K, VAN OIJEN DCC, WALTHER BA, BARNARD P. 2016. Linking science and policy to address conservation concerns about African land use, land conversion and land grabs in an era of globalization. *African Journal of Ecology* 54:265-267. (August 2016).

## 2015

BARNARD P. 2015. Lanner Falcon hunting large forest hornbills in the east Usambara Mountains, Tanzania. *Ornithological Observations* 6: 26-28. ISSN 2219-0341, <http://oo.adu.org.za/content.php?id=168>.

BARNARD P. 2015. South Africa must start managing its retreat from the coast. *The Conversation* 8 May 2015. <https://theconversation.com/south-africa-must-start-managing-its-retreat-from-the-coast-41198>.

BARNARD P. 2015. Fast, cheap calories may make city birds fat and sick. *The Conversation* 4 June 2015. <https://theconversation.com/fast-cheap-calories-may-make-city-birds-fat-and-sick-42269>.

BARNARD P. 2015. The health of city birds can tell us what we're doing wrong. *Sunday Weekend Argus* 7 June 2015. <https://www.gate5.co.za/read/47340/qv/33621905/134123259/83457/j>.

BARNARD P. 2015. Early warning systems help track the weather and can do the same for species. *The Conversation* 28 August 2015. <https://theconversation.com/early-warning-systems-help-track-the-weather-and-can-do-the-same-for-species-46702>.

BARNARD P & RYAN P. 2015. Fire in the city. *African Birdlife* May/June 2015: 14-16.

HEYSTEK A, PAUW A & BARNARD P. 2015. Proteaceae nectar sources for nectarivorous birds at landscape level. *South African Journal of Botany* 98:179-180, May 2015, doi:10.1016/j.sajb.2015.03.047 (abstract only of conference talk).

LEE ATK & BARNARD P. 2015. Endemic birds of the Fynbos biome: a conservation assessment and impacts of climate change. *Bird Conservation International*, Available on CJO 2015 doi:10.1017/S0959270914000537.

LEE ATK & BARNARD P. 2015. Spatial and temporal patterns of insect-order activity in the fynbos, South Africa. *Journal of Entomology and Zoology Studies* 3 (6):95-102.

LEE ATK, BARNARD P & HOCKEY PAR. 2015. Population metrics for fynbos birds, South Africa: densities, detection- and capture rates from a Mediterranean type ecosystem. *Ostrich: Journal of African Ornithology*, special commemorative issue for Professor PAR Hockey. DOI: 10.2989/00306525.2015.1021287.

MARON M, McALPINE C, WATSON JEM, MAXWELL S & BARNARD P. 2015. Climate-induced resource bottlenecks exacerbate species vulnerability: a review. *Diversity & Distributions*. DOI: 10.1111/ddi.12339.

## 2014

BARNARD P. 2014. Letter to the Editor [Volume 14 No. 4 (2014)] on gluten, nutrition, food security and health in Africa. *African Journal of Food, Agriculture, Nutrition and Development* 14(4), 9 June 2014. ISSN 1684 5374.

BARNARD P. 2014. Climate change adaptation. *Tsevhí – the Informer*. August 2014: 5-6.

DOWNS C, HAREBOTTLE D, DODMAN T, NDIAYE A, BARNARD P, HUNTLEY B, OGADA D, BOTHA A & NG'WENO F. 2014. Birds in a changing environment: Report on the 13th Pan-African Ornithological Congress in Arusha, Tanzania. *Ostrich: Journal of African Ornithology* 85:1, iii-vi. DOI: 10.2989/00306525.2014.912452. (May 2014)

COLLINGHAM YC, HUNTLEY B, ALTWEGG R, BARNARD P, BEVERIDGE OS, GREGORY RD, MASON LR, OSCHADLEUS HD, SIMMONS RE, WILLIS SG, & GREEN RE. 2014. Prediction of mean adult survival rates of southern African birds from demographic and ecological covariates. *Ibis*, published 27 August 2014 online: doi: 10.1111/ibi.12195.

HEYSTEK A, GEERTS S, BARNARD P & PAUW A. 2014. Pink flower preference in sunbirds does not translate into plant fitness differences in a polymorphic *Erica* species. *Evolutionary Ecology*, DOI 10.1007/s10682-014-9693-z. (19 Feb 2014)

HUNTLEY B, MIDGLEY GF, BARNARD P & VALDES PJ. 2014. Suborbital climatic variability and centres of biological diversity in the Cape region of southern Africa. *Journal of Biogeography*, 41: 1338-1351. (15 Feb 2014 in earlyview, 14 June 14 hard copy)

LEE ATK & BARNARD P. 2014. Aspects of the ecology and morphology of the protea seedeater, *Crithagra leucopterus*, a little-known Fynbos endemic. *African Zoology* 49(2):295-300 (October 2014). With electronic supplementary material.

LEE ATK & BARNARD P. 2014. Have elaborately ornamented birds evolved extra means to escape predators? *Fynbos Endemic Birds Survey Blogspot* 4 January 2014, <http://bluehillescape.blogspot.com/2014/01/have-elaborately-ornamented-birds.html>.

LEE A, BARNARD P & WRIGHT D. 2014. The bold and the beautiful: Orange-breasted Sunbird. *African Birdlife* 2(3):61.

RAH LAO SJ, MILTON SJ, ESLER KJ & BARNARD P. 2014. Performance of invasive alien fountain grass (*Pennisetum setaceum*) along a climatic gradient through three South African biomes. *South African Journal of Botany*, 91:43-48.

## 2013

CHALMANDRIER L, MIDGLEY GF, BARNARD P, SIRAMI C. Effects of time since fire on birds of a plant diversity hotspot. *Acta Oecologica* 49:99-106.

CHAMBERS LE, ALTWEGG R, BARBRAUD C, BARNARD P, BEAUMONT L, CRAWFORD R, DURANT J, HUGHES L, KEATLEY M, LOW M, MORELLATO P, POLOCZANSKA E, RUOPPELO V, VANSTREELS R, WOEHLE E, WOLFAARDT A. 2013. Phenological changes in the southern hemisphere. *PLoS ONE* 8(10): e75514. doi:10.1371/journal.pone.0075514

HEYSTEK A, GEERTS S, BARNARD P, PAUW A. 2013. Flower colour preference of sunbird pollinators. Abstract SAAB Annual Meeting. *South African Journal of Botany* 86:160. **IF 1.659**

HUNTLEY B, ALLEN JRM, BARNARD P, COLLINGHAM YC, HOLLIDAY PR, 2013. Species distribution models indicate contrasting late Quaternary histories for southern and northern hemisphere bird species. *Global Ecology and Biogeography* 22(3): 277-288.

LEE ATK, BARNARD P. 2013. The birds of Blue Hill Nature Reserve: the Fynbos Endemic Bird Survey. *Afring News* 42: 21-28. [http://safring.adu.org.za/downloads/afrn\\_42\\_21.pdf](http://safring.adu.org.za/downloads/afrn_42_21.pdf)

## 2012

ALTWEGG R, BROMS K, ERNI B, BARNARD P, MIDGLEY GF & UNDERHILL LG. 2012. Novel methods reveal shifts in migration phenology of barn swallows in South Africa. *Proceedings of the Royal Society B* 279:1485-1490.

ANONYMOUS (HAREBOTTLE D, BARNARD P & SMIT H), 2012. Monitoring changes in farmland birds. *Farmers Weekly* 27 January 2012:30.

BARNARD P. 2012. Water and climate change. *Important Bird Areas Program Newsletter* 2:3.

BARNARD P, DE VILLIERS M. 2012. *Biodiversity early warning systems: South African citizen scientists monitoring change*. South African National Biodiversity Institute, Pretoria, South Africa. 14 pp. ISBN: 978-0-620-51837-6. <http://www.sanbi.org/sites/default/files/documents/documents/biodiversitybooklet2012barnard.pdf>

EVANS D, BARNARD P, KOH LP, CHAPMAN CA, ALTWEGG R, GARNER TWJ, GOMPPER ME, GORDON IJ, KATZNER TE, PETTORELLI N. 2012. Funding nature conservation: who pays? *Animal Conservation* 15(3):215-216.

HUNTLEY B, ALTWEGG R, BARNARD P, COLLINGHAM YC & HOLE DG. 2012. Modelling relationships between species' spatial abundance patterns and climate. *Global Ecology and Biogeography* 21(6): 668-681.

HUNTLEY B, BARNARD P, 2012. Potential impacts of climatic change on southern African birds of fynbos and grassland biodiversity hotspots. *Diversity & Distributions* 18: 769-781.

LEE ATK, BARNARD P, 2012. Endemic fynbos avifauna: comparative range declines a cause for concern. *Ornithological Observations* 3: 19-28. (Published online 6 June 2012) ISSN: 2219-0341, [http://oo.adu.org.za/pdf/OO\\_2012\\_03\\_019-028.pdf](http://oo.adu.org.za/pdf/OO_2012_03_019-028.pdf)

TURNER RC, MIDGLEY JJ, BARNARD P, SIMMONS RE, JOHNSON SD. 2012. Experimental evidence for bird pollination and corolla damage by ants in the short-tubed flowers of *Erica halicacaba* (*Ericaceae*). *South African Journal of Botany* 79: 25-31.

## 2011

BARNARD P. 2011. Protecting biodiversity. Pp. 118-119 in *Climate Change: the Global Commitment. Special Publication for the COP17/CMP7 of the United Nations Framework Convention on Climate Change*. Republic of South Africa, Pretoria.

BARNARD P. 2011. Species' vulnerability to climate and land use change in a biodiversity hotspot. Percy FitzPatrick Institute of African Ornithology, DST/NRF Centre of Excellence, 50<sup>th</sup> Anniversary Annual Report 2010, pp. 52-55.

BARNARD P. 2011. Civil society participation projects identify Red Data species that are falling through the cracks. *uGREAT News*, Newsletter of the South African National Biodiversity Institute, December 2011:1.

BARNARD P. 2011. Ringed endemics in your garden...? *Promerops* 287:9. (Unrefereed research note)

SIMMONS R & BARNARD P. 2011. Pied pirates: crow threat to raptors? *Africa Birds & Birding* October/November 2011: 51-54.

## 2010

BARNARD P & MIDGLEY GF. 2010. No going back for species and ecosystems. Review of *Heatstroke: Nature in an age of global warming* (Island Press, Shearwater Books). *Trends in Ecology & Evolution* 25:9-10.

BARNARD P & UNDERHILL LG. 2010. Climate change: biodiversity on the move. *Quest* 6(2):14-17. Special biodiversity issue for International Year of Biodiversity 2010, coordinated in collaboration with the Academy of Science of South Africa.

HUNTLEY B, BARNARD P, ALTWEGG R, CHAMBERS L, COETZEE BWT, GIBSON L, HOCKEY PAR, HOLE DG, MIDGLEY GF, UNDERHILL LG, WILLIS SG. 2010. Beyond bioclimatic envelopes: dynamic species' range and abundance modelling in the context of climate change. *Ecography* 33:621-626.

RAHLAO SJ, ESLER KJ, MILTON SJ, BARNARD P. 2010. Nutrient addition and moisture promote the invasiveness of crimson fountaingrass (*Pennisetum setaceum*). *Weed Science* 58(2):154-159

RAHLAO SJ, MILTON SJ, ESLER KJ & BARNARD P. 2010. The distribution of invasive *Pennisetum setaceum* along roadsides in western South Africa: the role of corridor interchanges. *Weed Research* 50(6):537-543.

## 2009

BARNARD P. 2009. Sustainable living: Hypermiling. (Series co-coordinated by Phoebe Barnard and Lesley Shackleton). *Full Circle* June 2009: 62.

BARNARD P. 2009. Sustainable living: Climate change denialism - making sense of the myths about climate change. (Series co-coordinated by Phoebe Barnard and Lesley Shackleton). *Full Circle*, August 2009: 60-62.

BARNARD P. 2009. Sustainable living: Fortress or community? (Series co-coordinated by Phoebe Barnard and Lesley Shackleton). *Full Circle*, September 2009: 62.

BARNARD P & SIMMONS R. 2009. Birds of the South: Elsie's Peak - birds on the edge. *Full Circle* July 2009:52.

BARNARD P & SIMMONS R. 2009. How will birds cope with climate change? *Africa Birds & Birding* 14(6): 78-79.

BARNARD P & SIMMONS R. 2009. Rooi Els' jewels in the breeze - observers needed! *Rooi Els Breeze/Bries - Newsletter of the Rooi Els Conservancy* 2(2):3-4.

BARNARD P & SIMMONS R. 2009. The Southern African Bird Atlas Project 2 (SABAP2). *Rooi Els Breeze/Bries - Newsletter of the Rooi Els Conservancy* 2(2): 25.

DEAN WRJ, BARNARD P, ANDERSON MJ. 2009. When to stay, when to go: tradeoffs for arid zone birds in times of drought. *South African Journal of Science* 105: 24-28. (Arid Zone Ecology Forum special issue)

DE VILLIERS M.S. (ed.) 2009. *Birds and environmental change: building an early warning system in South Africa*. SANBI, Pretoria, South Africa, 14 pp. (led and contributed to this multi-contributor book on the concept I developed)  
<http://www.sanbi.org.za/sites/default/files/documents/documents/brdsc.pdf>

RAHLAO SJ, MILTON SJ, ESLER KJ, VAN WILGEN B & BARNARD P. 2009. Effects of invasion of fire-free arid shrublands by a fire-promoting invasive alien grass (*Pennisetum setaceum*) in South Africa. *Austral Ecology* 34:920-928.

SIRAMI C, SEYMOUR C, MIDGLEY GF & BARNARD P. 2009. Shrub encroachment impact on savanna bird diversity from local to regional scale. *Diversity & Distributions* 15: 948-957.

TRIPLET P & BARNARD P. 2009. Intégrer les changements climatiques à la gestion (= Integrating climate change into conservation management). Pp. 515-520 in : TRIPLET P (ed.). *Manuel des conservateurs des aires protégées d'Afrique francophone*. A wide-ranging handbook for West African protected area planners and managers, published online December 2009 ([http://hal.archives-ouvertes.fr/docs/00/66/91/57/PDF/manuel\\_gestion\\_afrique.pdf](http://hal.archives-ouvertes.fr/docs/00/66/91/57/PDF/manuel_gestion_afrique.pdf)).

UNDERHILL LG & BARNARD P. 2009. SABAP2 and climate change. *Africa Birds & Birding* 14(6): 79.

## 2008

BARNARD P & THUILLER W. 2008. Introduction -- Global change and biodiversity: future challenges. *Biology Letters* 4(5):553-555. (free-access online July 2008). This was the introduction to our special issue of *Biology Letters*.

BARNARD P (ed.). 2008. Integrated modeling of range shifts of highly dispersive animals under climate change. Proceedings of an Expert Workshop, 2-5 September 2008, Centre for Biodiversity Conservation, Kirstenbosch, South Africa. Unpublished technical workshop output. South African National Biodiversity Institute, Cape Town, 14 pp.

BARNARD P. 2008. Meet a conservationist: Wendy Foden. *Africa Conservation Telegraph (Newsletter of the Society for Conservation Biology, Africa Section)* 3(1):4-5.

BARNARD P. 2008. Meet a conservationist: Mao Angua Amis. *Africa Conservation Telegraph* 3(1):6-7.

BARNARD P. 2008. Sustainable living: The choice is ours. (Series co-coordinated by Phoebe Barnard and Lesley Shackleton). *Full Circle* May 2008: 52.

BARNARD P. 2008. Birds of the South: coping with climate change. *Full Circle* August 2008:52.



BARNARD P. 2008. Sustainable living: Time to take back the streets. (Series co-coordinated by Phoebe Barnard and Lesley Shackleton), *Full Circle* August 2008:64.

BARNARD P & SIMMONS R. 2008. Vanishing Glencairn dunes. *Full Circle* August 2008:56.

BARNARD P. 2008. Sustainable living: Do good lives have to cost the Earth? (Series co-coordinated by Phoebe Barnard and Lesley Shackleton), *Full Circle* October 2008:62.

BARNARD P. 2008. Birds of the South: Birds and people. *Full Circle* November 2008: 56.

BARNARD P, UNDERHILL LG, MIDGLEY GF. 2008. Building an early warning system for biodiversity under climate change in southern Africa. 6<sup>th</sup> Annual Global Biodiversity Information Facility Science Symposium, Arusha, Tanzania. <http://www2.gbif.org/SS6barnard.pdf>.

HARRISON J, UNDERHILL LG & BARNARD P. 2008. The legacy of the Southern African Bird Atlas. *South African Journal of Science*, 104:82-84.

MIDGLEY GF, RUTHERFORD MC, BOND WJ & BARNARD P. 2008. *The heat is on....impacts of climate change on plant diversity in South Africa*. Revised and reprinted with new information. South African National Biodiversity Institute, Claremont. 13 pp. ISBN 978-1-919684-55-0.

## 2007

BARNARD P. 2007. Board member favourites: article reviews from Volumes 2 and 3. *Biology Letters Online*, first posted 15 Mar 2007. <http://www.pubs.royalsoc.ac.uk/index.cfm?page=1005>

BARNARD P. 2007. A national Birds and Environmental Change Partnership at SANBI. *SANBI News* 1(1): 8.

BARNARD P & MIDGLEY GF. 2007. Putting it on the line. Review of *The Atlas of Climate Change, Mapping the World's Greatest Challenge*. *Trends in Ecology and Evolution* 22:177-178. <http://dx.doi.org/10.1016/j.tree.2007.01.009>.

NORGAARD RG, BARNARD P & LAVALLE P. 2007. Assessing and restoring natural capital across scales: lessons from the Millennium Ecosystem Assessment. In: Aronson J, Milton SJ & Blignaut JA (eds.). *Restoring Natural Capital: Science, Business and Practice*. Island Press: Washington, D.C., pp. 36-43. ISBN 13: 978 1 59726 076 3. Entire book available at <http://biblio.telug.ca/LinkClick.aspx?fileticket=ZWYgaFpOxY%3D&tabid=42141&language=fr-CA>.

SIMMONS R & BARNARD P. 2007. Breeding booted eagles at Brukkaros, Namibia? *Gabar – Journal of African Raptor Biology*, 18(1): 9-15.

## 2006

BARNARD P. 2006. Momentum increases for climate change and IAS research. *GISPNews – Newsletter of the Global Invasive Species Program* 5:6.

McCLEAN CJ, DOSWALD N, KÜPER W, SOMMER JH, BARNARD P & LOVETT JC. 2006. Potential impacts of climate change on sub-Saharan African plant priority area selection. *Diversity and Distributions* 12:645-655. Also published online Sept 2006: DOI: 10.1111/j.1366-9516.2006.00290.x © [www.blackwellpublishing.com/ddi](http://www.blackwellpublishing.com/ddi)

## 2005

BARNARD P & JACKSON L. 2005. Invasive species – a global issue, with global solutions. In Subtheme *Invasive alien species – coping with aliens*. In *Proceedings of Biodiversity Loss and Species Extinctions: Managing Risk in a Changing World, a Global Synthesis Workshop convened at the IUCN World Conservation Forum*, 18-20 November, 2004, Bangkok, Thailand.

BARNARD P, THUILLER W & MIDGLEY G. 2005. Invasive species under global change – signs from a homogenized world. *GISPNews - Newsletter of the Global Invasive Species Program* 4: 8-11.

FRAZEE S, BARNARD P & COWLING RM. 2005. |Ai-|Ais-Richtersveld-Sperrgebiet: Transboundary conservation in an arid hotspot. In: Mittermeier RA, Kormos CF, Mittermeier CG, Robles Gil P, Sandwith T & Besançon C (eds.). *Transboundary conservation: a new vision for protected areas*. CEMEX/ Conservation International: pp. 257-263. ISBN: 968 6397 83 3.

LOVETT JC, BARNARD P & MIDGLEY GF. 2005. Policy piece: National climate change conference in South Africa. *African Journal of Ecology* 43: 279-281.

LOVETT JC, MIDGLEY GF & BARNARD P. 2005. Policy piece: Climate change and ecology in Africa. *African Journal of Ecology* 43: 167-169.

SIMMONS R & BARNARD P. 2005. Turning up the heat – looking at climate change impacts on African birds. *Africa Birds and Birding* 10(5): 52-60.

## 2004

BARNARD P & WAAGE J.K. 2004. *Tackling biological invasions around the world – regional responses to the alien invasive species threat*. Global Invasive Species Program, Cape Town, South Africa. 40 pp. ISBN no. 1-919684-43-3. (Senior panel-reviewed booklet synthesizing eight regional workshop proceedings) - available at [www.gisp.org](http://www.gisp.org).

GISP. Undated (2004). Protecting plants and plant habitats from invasive alien species: a look at the Global Strategy for Plant Conservation. Implementing Target 10: Tackling invasive species which threaten plant diversity. The Global Invasive Species Program/ Convention on Biological Diversity (peer-reviewed information leaflet drafted by Phoebe Barnard), Cape Town, South Africa. Available at: [www.gisp.org](http://www.gisp.org).

GISP. 2004. [Six regional workshop volumes from South-Southeast Asia, Southern Africa and the Austral Pacific region, totalling c. 680 pp., edited and finalized by Phoebe Barnard, but without editorial credit]. Global Invasive Species Program, Cape Town, South Africa. Available at: [www.gisp.org](http://www.gisp.org).

SIMMONS R, BARNARD P, DEAN WRJ, MIDGLEY GF, THUILLER W & HUGHES G. 2004. Climate change and birds: perspectives and prospects from southern Africa. *Ostrich* 75(4): 295-308. (models current and predicted bird distributions under climate change, and proposes a framework of testable hypotheses for research)

## 2003

BURKE A, ESLER K, PIENAAR E & BARNARD P. 2003. Species richness and floristic relationships between mesas and their surroundings in southern African Nama Karoo. *Diversity and Distributions* 9(1): 43-53.

ESLER KJ, LAROS MT, JONES FE, BARNARD P & BURKE A. 2003. Views on policy from a joint European – southern African funded project: The role of isolated mountains in the sustainable rangeland management of the Nama-Karoo. *African Journal of Range and Forage Science* 20(2): 227-230 (abstract only).

MILTON S & BARNARD P (conveners). 2003. Rangelands as dynamic systems – biodiversity conservation in rangelands: why and how. *African Journal of Range and Forage Science* 20(2): 80-88 (abstracts only).

SEELY MK, ZEIDLER J, HENSCHER JR & BARNARD P. 2003. Creative problem solving in support of biodiversity conservation. *Journal of Arid Environments* 54(1): 155-164.

SHANYENGANA, ES, BARNARD P & SHIKONGO ST. 2003. Biodiversity conservation in Namibia: providing incentives for sustainable use of natural resources and biotechnology. In: Sandlund OT & Schei PJ (eds). *Proceedings of the Norway/UN Conference on Technology Transfer and Capacity Building*. Trondheim Biodiversity Conferences, 23-27 June 2003. Directorate for Nature Management, Norwegian Institute for Nature Research, pp. 131-136.

## 2002

BARNARD P. 2002. The fitful evolution of the Sperrgebiet National Park, a Namibian wilderness in a biodiversity hotspot. *Society for Conservation Biology Newsletter* 9(3), September 2002. Available online at: [http://conservationbiology.org/SCB/Publications/Newsletter/Archives/2002-9-September/v9n3\\_007.cfm#A14](http://conservationbiology.org/SCB/Publications/Newsletter/Archives/2002-9-September/v9n3_007.cfm#A14).

BARNARD P & HENSCHER J. 2002. Monitoring, predicting and adapting to environmental change: a framework for applying State of the Environment Reporting indicators through the Environmental Observatories Network of Namibia. In: Noongo N, Reinikainen T, Smit W and Hashiyana E (compilers and editors). *Environmental Monitoring and Indicators Network II: Proceedings of the EMIN II Workshop*, 13-14 June 2002, pp. 39-44. Available on request, as no longer served online at Namibian Government website

BARNARD P and FRAZEE S. 2002. The Succulent Karoo hotspot in Namibia - securing the Sperrgebiet wilderness and its biodiversity. Unpublished conservation area proposal for Conservation International and Global Conservation Fund (Sperrgebiet National Park is in 2004/5 being established by the Namibian Government).

BARNARD P, ROBERTS K, SIMMONS R, SEELY M, NAKANUKU L, KOLBERG H, HAY C. 2002. An integrated framework for wetland health monitoring in dryland Namibia. *Proceedings of the International Conference on Environmental Monitoring of Tropical and Subtropical Wetlands*, Maun, Botswana, 4-7 December 2002. [www.ees.ufl.edu/homepp/brown/hoorc/docs/5Papers&PaperAbstracts/Barnard.et.al.2.1.doc](http://www.ees.ufl.edu/homepp/brown/hoorc/docs/5Papers&PaperAbstracts/Barnard.et.al.2.1.doc)

ESLER, KJ, JONES FE, BURKE A, SAMWAYS M, BARNARD P, GILBERT F & WISSEL C. 2002. *Guidelines for sustainable rangeland management: recommendations on ecological restoration of rangelands in the semi-arid Nama Karoo biome*. Magenta Media, Cape Town, 36 pp. ISBN: 0-620-29382-9.

GOVERNMENT OF THE REPUBLIC OF NAMIBIA (BARNARD P, SHIKONGO ST & ZEIDLER J, eds). 2002. *Biodiversity and development in Namibia: Namibia's ten-year strategic plan of action for sustainable development through biodiversity conservation 2001-2010*. Government of the Republic of Namibia, National Biodiversity Task Force, Windhoek. 137 pp, ISBN 0-86976-587-6. Available at: [www.dea.met.gov.na](http://www.dea.met.gov.na).

## 2001

ANONYMOUS. 2001. *Biodiversity and development – an overview of Namibia's ten-year strategic plan of action for sustainable development through biodiversity conservation 2001-2010*. National Biodiversity Task Force, Ministry of Environment and Tourism, Windhoek. A5 colour brochure for Parliamentarians and planners, 11 pp. (prepared by Phoebe Barnard) Available at: [www.dea.met.gov.na](http://www.dea.met.gov.na).

BARNARD P & SHIKONGO ST. 2001. Implementing Namibia's Biodiversity Strategy and Action Plan – land use, management, tenure and environmental sustainability. In: Ziedler J & Katjua M (eds). *Proceedings of the National Design Workshop: National Analysis of Land Uses, Management and Tenure on Biodiversity and Environmental Sustainability*. Ministries of Environment & Tourism and Lands, Resettlement & Rehabilitation, Windhoek, November 5, 2001, pp 8-10.

BARNARD P & SHIKONGO ST. 2001. Namibia's biodiversity and biological resources. *Conservation 2001 – the Importance of the Environment for Development in Namibia* (special edition) 2001: 30-31.

## 2000

ANONYMOUS. 2000. What is this thing called biodiversity? Information poster (A0) and accompanying information sheet for the Namibian public. Namibian National Biodiversity Program, Directorate of Environmental Affairs, Ministry of Environment and Tourism, Windhoek. (Prepared by Rob Simmons, Phoebe Barnard, Sem Shikongo and others.) Available at: [www.dea.met.gov.na](http://www.dea.met.gov.na).

HENSCHER J, BARNARD P, BROWN C, KRUGER B, MacGREGOR J, SIMMONS R, STROHBACH B, ZEIDLER J. 2000. The Namibian Long-Term Ecological Research Network (Na-LTER). *Proceedings of the LTER All Scientists Meeting*, Snowbird, Utah, USA, 2-4 August 2000.

## 1999

BARNARD P, ROBERTSON M, ZEIDLER J. 1999. Developing an early warning system for environmental degradation in Namibia. In: Eldridge D & Freudenberger D (eds.). *People and rangelands: building the future, vol. 2. Proceedings of the VI International Rangeland Congress*. International Rangeland Congress, Townsville, Australia, July 17-23, 1999, pp. 662-663.

BARNARD P, SIMMONS RE & ULFSTRAND S (co-convenors). 1999. Evolutionary and behavioural ecology in the real world of dust and flies. Roundtable discussion. P 3200 in: Adams NJ & Slotow RH (eds.). *Proceedings of the 22<sup>nd</sup> International Ornithological Congress, Durban, South Africa*. BirdLife South Africa, Johannesburg.

DESERT RESEARCH FOUNDATION OF NAMIBIA. 1999. Conserving biodiversity: the next steps. *Update: a regular briefing on aspects of sustainable development in Namibia* 4(7):1-2. Information leaflet for Parliamentarians and others. Desert Research Foundation of Namibia and National Biodiversity Program, Windhoek. (Prepared by Phoebe Barnard and Sharon Montgomery)

GOVERNMENT OF THE REPUBLIC OF NAMIBIA. 1999. *National policy document: enabling the safe use of biotechnology*. Windhoek, 24 pp. (Prepared by Phoebe Barnard and the Namibian Biotechnology Alliance on behalf of the Government of Namibia, Ministries of Science and Technology; Environment and Tourism; and Agriculture, Water and Rural Development.) Available at: [www.dea.met.gov.na](http://www.dea.met.gov.na).

PETRIE M & BARNARD P (co-convenors). 1999. Sexual selection. Symposium. P. 1088 in: Adams NJ & Slotow RH (eds.). *Proceedings of the 22<sup>nd</sup> International Ornithological Congress*, Durban, South Africa. BirdLife South Africa, Johannesburg. DOI: 10.13140/2.1.1637.4565

## 1998

BARNARD P (ed). 1998a. *Biological diversity in Namibia: a country study*. Namibian National Biodiversity Task Force / Ministry of Environment and Tourism, Windhoek. 332 pp, full-colour A4 format book, ISBN 0-86976-436-5. Selected sections available at: [www.dea.met.gov.na](http://www.dea.met.gov.na).

BARNARD P (ed). 1998. Special issue: the biological diversity of Namibia. *Biodiversity and Conservation* 7(4).

BARNARD P. 1998. Guest editorial: Biological diversity in Namibia -- a clash of sea and land, fog and dust. *Biodiversity and Conservation* 7:415-417.

BARNARD P. 1998. Variability in the mating systems of parasitic birds. In: Rothstein SI & Robinson, SK (eds.). *Parasitic birds and their hosts: studies in coevolution*. Oxford University Press, Oxford/ New York, pp. 339-353. ISBN: 0 19 509976 1.

BARNARD P, BROWN CJ, JARVIS AM, ROBERTSON A & VAN ROOYEN, L. 1998. Extending the Namibian protected area network to safeguard hotspots of endemism and diversity. *Biodiversity and Conservation* 7:531-547.

SIMMONS RE, BARNARD P & JAMIESON IG. 1998. What precipitates influxes of wetland birds to ephemeral pans in arid landscapes? Observations from Namibia. *Ostrich* 70(2): 145-148.

## 1997

BARNARD, P. 1997a-i. Species accounts: common waxbill *Estrilda astrild*, blackcheeked waxbill *E. erythronotos*, Cinderella waxbill *E. thomensis*, pintailed whydah *Vidua macroura*, shafttailed whydah *V. regia*, paradise whydah *V. paradisaea*, black widowfinch *V. funerea*, purple widowfinch *V. purpurascens*, steelblue widowfinch *V. chalybeata*. In: Harrison, JA, Allan, DG, Underhill, LG, Herremans, M, Tree, AJ, Parker, V & Brown, CJ (eds.). *The atlas of southern African birds, Vol. 2, passerines*. BirdLife South Africa, Johannesburg. Pp. 612- 617, 636-647. 732 pp. ISBN: 0 620 20731 0.

BARNARD, P & HERREMANS, M. 1997a-d. Species accounts: melba finch *Pytilia melba*, blue waxbill *Uraeginthus angolensis*, violeteared waxbill *U. granatinus*, swee waxbill *Estrilda melanotis*. In: Harrison, JA, Allan, DG, Underhill, LG, Herremans, M, Tree, AJ, Parker, V & Brown, CJ (eds.). *The atlas of southern African birds, Vol. 2, passerines*. BirdLife South Africa, Johannesburg. Pp. 594-595, 608-611, 618-619. 732 pp. ISBN: 0 620 20731 0.

SIMMONS RE, STANDER PE, BARNARD P & COWLISHAW G. 1997. The role of behavioural ecology in southern Africa. *South African Journal of Science* 93:489-490.

## 1996

ANONYMOUS. 1996. Biodiversity and environmental health. Information pamphlet for the Namibian public. Directorate of Environmental Affairs, Windhoek. 2 pp. (Prepared by Jacquie Tarr and Phoebe Barnard)

GRIFFIN M & BARNARD P. 1996. What is this thing called biodiversity? *Namibia Environment* 1: 122-125.

#### 1995

ANONYMOUS. Undated (1995). Ecosystem health and biological diversity. Information leaflet for members of parliament, National Biodiversity Program, Windhoek. 2 pp. (prepared by Phoebe Barnard)

BARNARD P. 1995a. Scientific research traditions and collaboration in tropical ecology. *Trends in Ecology & Evolution* 10: 38-39.

BARNARD P. 1995b. Timing of ornament growth, phenotypic variation, and size dimorphism in two promiscuous African whydahs (Ploceidae: *Vidua*). *Biological Journal of the Linnean Society* 55: 129-141.

BARNARD P. 1995c. Urbanization and quality of life: Why Namibian towns and cities need open space networks. *The Namibian* 4(3): 7.

BARNARD P. 1995d. Namibia's national biodiversity program up and running. *Roan News* Feb. 1995:10-11.

BARNARD P. 1995e. The secret life of African whydahs. *Whydah: Newsletter of the African Academy of Sciences* 4 (1):5-6.

EVANS M & BARNARD P. 1995. Variable sexual ornaments in scarlet-tufted malachite sunbirds (*Nectarinia johnstoni*) on Mount Kenya. *Biological Journal of the Linnean Society* 54: 371-381.

MARITZ N, BARNARD P & HARPER S. 1995. Avis Dam recreational club development: objections, suggested solutions, and proposal for a nature reserve. Namibian Greenspace Report 1: 16 pp + 8 appendices (unpublished).

#### 1994

BARNARD P. 1994. Ornament and body size variation in some African passerine birds. *Acta Universitatis Upsaliensis, Comprehensive Summaries of Uppsala Dissertations from the Faculty of Science and Technology* 29: 21 pp. ISBN 91-554-3255-7.

BARNARD P, GRIFFIN M, BROWN CJ & SIMMONS R. 1994. Biological diversity in Namibia: issues and priority needs for the implementation of a future national biodiversity strategy. DEA Draft Paper (unpublished), 7 pp.

OAKES EJ & BARNARD P. 1994. Fluctuating asymmetry and mate choice in paradise whydahs, *Vidua paradisaea*: an experimental manipulation. *Animal Behaviour* 48: 937-943.

#### 1993

BARNARD P. 1993. Review of *Ornithology for Africa* by GL Maclean. *Auk* 110: 418-419.

#### 1992

BARNARD P. 1992. Review of *The complete book of southern African birds* by PJ Ginn, WG McIlhleron & P le S Milstein. *Auk* 109:208-209.

BARNARD P. 1992. [The secret life of African whydahs.] *Anima* 237:68-72. (in Japanese)

#### 1991

BARNARD P. 1991. Ornament and body size variation and their measurement in natural populations. *Biological Journal of the Linnean Society* 42: 379-388.

BARNARD P. 1991. Ageing and sexing guide for ringers: pintailed whydah *Vidua macroura*. *Safring News* 20:71-76.

BARNARD P & DOWSETT RJ. 1991. Ageing and sexing guide for ringers: forest canary *Serinus scotops*. *Safring News* 20:69-70.

#### 1990

BARNARD P. 1990. Male tail length, sexual display intensity and female sexual response in a parasitic African finch. *Animal Behaviour* 38: 652-656.

BARNARD P & MARKUS MB. 1990. Reproductive failure and nest site selection of two estrildid finches in *Acacia* woodland. *Ostrich* 61: 117-124.

#### 1989

BARNARD P. 1989a. Territoriality and the determinants of male mating success in the southern African whydahs (*Vidua*). *Ostrich* 60: 103-117.

BARNARD P. 1989b. Faecal bacteria in unhatched eggs of cavity-nesting kestrels. Pp. 135-139 in: Cooper JE (ed.). *Disease and threatened birds*. International Council for Bird Preservation Technical Publication 10, Cambridge. 200 pp. ISBN: 0 946888 18 3.

BARNARD P. 1989c. Comparative mating systems and reproductive ecology of the African whydahs, *Vidua*. MSc thesis, University of the Witwatersrand, Johannesburg, South Africa. 134 pp (published as seven refereed papers and one popular article).

BARNARD P & MARKUS MB. 1989. Male copulation frequency and female competition for fertilizations in a promiscuous brood parasite, *Vidua macroura*. *Ibis* 131: 421-425.

## 1988

BARNARD P. 1988. Ageing and sexing guide for ringers: common waxbill *Estrilda astrild*. *Safring News* 17:79-83.

KELSEY MG & BARNARD P. 1988. Scarlet facial feathering of *Uraeginthus angolensis*: a phenotypic throwback? *Ibis* 130: 444-445.

## 1987

BARNARD P. 1987. Foraging site selection by three raptors in relation to grassland burning in a montane habitat. *African Journal of Ecology* 25: 35-47.

BARNARD P. 1987. Iris colour, sex and gonadal development of Cape weavers. *Safring News* 16:45-48.

BARNARD P, MACWHIRTER B, SIMMONS R, HANSEN GL & SMITH PC. 1987. Timing of breeding and the seasonal importance of passerine prey to northern harriers (*Circus cyaneus*). *Canadian Journal of Zoology* 65: 1942-1950.

SIMMONS R & BARNARD P. 1987. Review of *Harrier, hawk of the marshes* by F Hamerstrom. *Ibis* 129: 578-579.

SIMMONS R, BARNARD P & SMITH PC. 1987. Reproductive behaviour of *Circus cyaneus* in North America and Europe: a comparison. *Ornis Scandinavica* 18: 33-41.

## 1986

BARNARD P. 1986. Windhovering patterns of three African raptors in montane conditions. *Ardea* 74:151-158.

BARNARD P. 1986. Two instances of interspecific raptor predation. *Gabar* 1:27-28.

BARNARD P & SIMMONS R. 1986. The functions of leg-lowering in territorial predatory birds. *Ostrich* 57:107-109.

SIMMONS R, MACWHIRTER B, BARNARD P & HANSEN GL. 1986. The influence of microtines on polygyny, productivity, age and food provisioning of northern harriers: a five year study. *Canadian Journal of Zoology* 64:2447-2456.

## 1985

BARNARD P & SIMMONS R. 1985. Birds of prey of Giant's Castle Game Reserve. *Bokmakierie* 37:104-107.

## 1984

BARNARD PE. 1984. Foraging energetics of breeding northern harriers: methods in estimating energy budgets. Pp. 181-182 in: Mendelsohn JM & Sapsford CW (eds.). *Proceedings of the 2nd Symposium on African Predatory Birds*. Durban: Natal Bird Club.

BARNARD PE. 1984. Prey selection and provisioning strategies by northern harriers. p. 229 in: Mendelsohn JM & Sapsford CW (eds.). *Proceedings of the 2nd Symposium on African Predatory Birds*. Durban: Natal Bird Club.

BARNARD P, ALLEN J & ALLEN JC. 1984. Adult sunbird as prey of brown-hooded kingfisher. *Promerops* 164:13-14.

BARNARD P & SIMMONS R. 1984. Montagu's harrier in the western Cape. *Promerops* 162:6-7.

## 1983

BARNARD P. 1983. Foraging behaviour and energetics of northern harriers *Circus cyaneus* (L). BSc Hons thesis, Acadia University, Wolfville, Nova Scotia, Canada. 102 pp (published as seven papers or abstracts above).

## 1982

BARNARD P. 1982. Breeding success and failure of the American kestrel *Falco sparverius* in Berks and Lehigh Counties, Pennsylvania. Hawk Mountain Sanctuary/ Cedar Crest College Research Summary Report 1: 34 pp (published as one book chapter above).

## 1981

BARNARD P & SIMMONS B. 1981. The elusive marsh hawk. *Tantramar* 1:48-49.

## 2. CONFERENCE PRESENTATIONS, SEMINARS & INVITED LECTURES In reverse chronological order

2019 Cultivating champions in a fast-changing world – lessons from Africa. Invited keynote plenary lecture, Storming the Sound (Northwest Aquatic and Marine Educator's Conference), La Conner, Washington, 24 January 2019.

2018 Taking charge: citizen science in the Pacific Northwest to change the world. Invited talk to Youth Earth Summit, Padilla Bay National Estuarine Research Reserve and Interpretive Center, Padilla Bay, Washington, 7 December 2018.

- 2018 A Cascadia biodiversity early warning system. Invited talk to University of Washington's Citizen Science Community of Practice monthly brownbag lunch meeting. Seattle, Washington, 15 November 2018.
- 2018 (Delivered by ST Osinubi, with D Dalton, P Barnard & P Ryan) A tale of three kings: study of the intra-African migration of the woodland kingfisher. Poster paper, International Ornithological Congress, Vancouver, Canada, August 2018.
- 2018 The magic and science of South Africa's fynbos biome. Invited talk to Skagit Audubon Society, Padilla Bay, 8 May 2018.
- 2018 The future needs you: citizen science in a rapidly changing world. Hosted and presented public workshop, FutureFest Festival, Transition Fidalgo and Friends, Anacortes, Washington, Earth Day (22 April) 2018.
- 2018 Early warning systems for biodiversity in Cascadia: things are changing. How do we know? What can we do? Invited talk to Sound Waters University (a large-scale public learning event), South Whidbey, Washington, 3 February 2018.
- 2017 Antarctica: the wild, remote, imperilled continent. Climate change, truth vs power, and the nature of leadership. Pacific Biodiversity Institute's Conservation Café 4, Anacortes Public Library, Washington, 18 December 2017.
- 2017 The Millennium Ecosystem Assessment and global biodiversity policy: talking points. Invited discussion session with Western Washington University undergraduate students of Dr Shawn Arellano, Bellingham, Washington, 4 December 2017.
- 2017 When Rome is burning: the effects of a global decline in biodiversity. Invited keynote presentation to Fidalgo Shoreline Academy, Anacortes, Washington, 21 October 2017.
- 2017 Early warning systems for biodiversity in Cascadia: a journey via southern Africa and Antarctica. Invited talk to Transition Fidalgo and Friends, Anacortes, Washington, 26 September 2017.
- 2017 (Delivered by ST Osinubi, with D Dalton, P Barnard & P Ryan) Advancing the study of intra-African bird migration: ecology, conservation and policy. European Ornithologists' Union Congress, Turku, Finland, 18-22 August 2017.
- 2017
- 2016 A world upside down: Academic and citizen science to understand vulnerability of endemics in southern Africa. Invited lecture, United Nations Environment Program/ World Conservation Monitoring Centre, Cambridge, UK, 14 September 2016.
- 2016 (delivered by A Coetzee, with P Barnard & A Pauw) The importance of Proteaceae species richness in providing nectar resources. International Association of Vegetation Science, Pirenópolis, Brazil, 12-17 June 2016. (award for best PhD student oral presentation)
- 2016 A world upside down: Charting climate and biodiversity futures in Africa and the global South. Invited lecture, Senator George S. Mitchell Center for Sustainability Solutions, University of Maine, Orono, USA, 2 May 2016.
- 2016 (delivered by KN Oswald, with ATK Lee, SJ Cunningham, P Barnard & B Smit). Behavioural responses to temperature in the Cape Rockjumper (*Chaetops frenatus*) (poster presentation). BirdLife South Africa and FitzPatrick Institute Conference, Skukuza, South Africa, 10-11 March 2016.
- 2016 The Gondwana Edges Project Consortium – Vulnerability and adaptation of endemic species at continental edges. Invited seminar to field course (international biologists and Chilean foreign affairs officials), Subantarctic Biocultural Conservation Centre, Institute of Ecology and Biodiversity, University of Magallanes, Puerto Williams field centre, Chile, 17 January 2016.
- 2016 (delivered by P Barnard and M Maron). Resource bottlenecks exacerbate Gondwana species' vulnerability to climate change. Roundtable Workshop on Resource Bottlenecks in Climate Change (Phoebe Barnard and Martine Maron, co-convenors), Southern Connection Congress 2016, Punta Arenas, Chile, 23 January 2016.
- 2016 (delivered by P Barnard, with ATK Lee, SJ Cunningham, R Milne & B Smit). On the edge: long-term and large-scale data to estimate vulnerability of Africa's southernmost endemics. Symposium on Long-term Bird Studies in the Southern Hemisphere (Jaime Jimenez and Phoebe Barnard, co-convenors). Southern Connection Congress 2016, Punta Arenas, Chile, 23 January 2016.
- 2015 (delivered by ATK Lee, with KN Oswald, SJ Cunningham, P Barnard & B Smit). Cape Rockjumper - foraging, panting and shade-seeking behaviour reflect heat tolerance threshold. British Ornithologists' Union Conference, Leicester, UK, 31 March – 2 April 2015.
- 2015 (delivered by A Heystek, with A Heystek, A Pauw, T Rebelo & P Barnard) Protea nectar sources for nectarivorous birds at landscape level. South African Association of Botanists 41<sup>st</sup> Annual Conference, Venda, Limpopo, 11-15 January 2015.
- 2014 (delivered by and with ATK Lee) Population estimates of Fynbos birds. South African National Biodiversity Institute Science Day, Kirstenbosch, South Africa, 1-2 October 2014.
- 2014 (delivered by and with ATK Lee) Fynbos vs forest: which birds are better off according to the Southern African Bird Atlas Projects? Fynbos Forum, August 2014.
- 2014 (delivered by ATK Lee, with R Milne, S Cunningham and B Smit) Between a rock and a hot place: implications of climate change for fynbos endemic birds. International Ornithological Congress, Tokyo, Japan, September 2014.

- 2014 Tracking species in space and time: Africa's fabulous citizen science biodiversity database projects. Tropical Biology Association field course, Amani, Tanzania, 19 August 2014.
- 2014 Climate change and African biodiversity – introduction to current and future impacts. Tropical Biology Association field course, Amani, Tanzania, 14 August 2014.
- 2014 Climate change and conservation triage. Tropical Biology Association field course, Amani, Tanzania, 10 August 2014.
- 2014 Austin Roberts Memorial Medal Award Citation for Professor John Ledger. BirdLife South Africa 2014 Annual General Meeting, Mont-aux-Sources, South Africa, 15 March 2014.
- 2014 Gill Memorial Medal Citation for Professor A.J.F.K. Craig. BirdLife South Africa 2014 Annual General Meeting, Mont-aux-Sources, South Africa, 15 March 2014.
- 2014 Conservation triage: tough choices in bird conservation. President's Address, BirdLife South Africa 2014 Annual General Meeting, Mont-aux-Sources, South Africa, 15 March 2014.
- 2014 Global change challenges for the fynbos endemics: seeing endemic species through to the next century. Invited lecture, Learning About Birds (LAB): BirdLife South Africa/ FitzPatrick Institute science conference, Mont-aux-Sources, South Africa, 15 March 2014.
- 2014 Climate change: conserving species and their habitats through the next century. Invited lecture, Learning About Birds (LAB): BirdLife South Africa/ FitzPatrick Institute science conference, Mont-aux-Sources, South Africa, 13 March 2014.
- 2014 Tracking environmental change with birds and bird habitats – fynbos endemic vulnerability to climate and land use change. Invited lecture to West Coast Bird Club, Langebaanweg, South Africa, 28 February 2014.
- 2013 (with ATK Lee) Between a rock and a hot place: Fynbos endemic birds are highly vulnerable to extinction under projected climate change scenarios. Fynbos Forum, Cape Town, 8 October 2013.
- 2012 (with B Huntley and ATK Lee) Hotspots in hotter times: current and future impacts of likely future climate and global change on fynbos endemics. 13<sup>th</sup> Pan-African Ornithological Congress, Arusha, Tanzania, 14-21 October 2012.
- 2012 (with B Huntley and GF Midgley) Potential impact of past and projected future climatic changes on birds of southern African hotspots. 13<sup>th</sup> Pan-African Ornithological Congress, Arusha, Tanzania, 14-21 October 2012.
- 2012 (with M Maron) When crunch time comes: resource bottlenecks and climate change impacts on southern African and Australian birds. 13<sup>th</sup> Pan-African Ornithological Congress, Arusha, Tanzania, 14-21 October 2012.
- 2012 (with SD Hofmeyr, LG Underhill, R Altwegg, K Broms and D Young) Using citizen science to document a species decline: the southern black korhaan *Afrotis afra*. 13<sup>th</sup> Pan-African Ornithological Congress, Arusha, Tanzania, 14-21 October 2012. (poster)
- 2012 Building an early warning system for monitoring biodiversity under climate change. SANBI Biodiversity Monitoring Workshop, Kirstenbosch, South Africa, 17-18 May 2012.
- 2012 (with 10 coauthors) Climate and land use change in the world of fynbos endemics – how much threat, how much opportunity? Keynote speech, Frontiers in South African Ornithology. Port Elizabeth, South Africa, 15-16 March 2012 (cancelled due to family crisis).
- 2012 (with 10 coauthors). Climate and land use change in the world of fynbos endemics – threat and opportunity. Poster presentation, Fynbos Forum 2012, Cape St Francis, South Africa, 16-20 July 2012.
- 2012 (with C Madden) Crows and craftiness: are Pied Crows a threat to our biodiversity? Public talk to BirdLife Overberg, Hermanus, South Africa, 12 November 2012.
- 2010 (with RM Wanless, M Brooke, K Camphuysen, T Dunne, PG Ryan, ML Tasker, LG Underhill & A Webb) Surveys of seabirds at sea: harnessing platforms of opportunity with a flexible, effort-based count methodology and an open-access, online database. Special poster session 1: Seabird Informatics, databases and long-term monitoring. World Seabird Conference, contribution PI-176, August 2010, Vancouver, Canada. [http://www.worldseabirdconference.com/wp-content/uploads/2013/11/Full\\_Abstracts\\_P1.pdf](http://www.worldseabirdconference.com/wp-content/uploads/2013/11/Full_Abstracts_P1.pdf).
- 2010 (with LG Underhill, GF Midgley) Building an integrated early warning system for biodiversity under rapid environmental change. Plenary address, Biodiversity Information Management Forum, SANBI, Cape Town, 22 September 2010.
- 2008 Building an early warning system for biodiversity under climate change in southern Africa – modeling and policy translation lessons from plant and bird data. Plenary address, 6<sup>th</sup> Annual Global Biodiversity Information Facility Science Symposium, Arusha, Tanzania, 6 November 2008.
- 2008 (delivered by SJ Rahlao, with Milton SJ and Esler KJ) Performance of invasive alien fountain grass (*Pennisetum setaceum*) along a climatic gradient through three South African biomes. Oral presentation, 10<sup>th</sup> International Conference on the Ecology and Management of Alien Plant Invasions (EMAPi10), Stellenbosch, South Africa, 23-27 August 2008.
- 2008 (delivered by SJ Rahlao, with SJ Milton, KJ Esler and BW van Wilgen) Effects of invasion of fire-free arid shrublands by a fire-promoting invasive alien fountaingrass (*Pennisetum setaceum*) in South Africa. Oral presentation, Fynbos and Arid-Zone Combined Forum "Interfaces", Oudtshoorn, South Africa, 3-7 August 2008.

- 2007 (with GF Midgley, BS Kgope & KB Mantlana) Global change challenges for biodiversity in the 21<sup>st</sup> century: practical tools for planning, policy and management. Workshop at the Society for Conservation Biology 21<sup>st</sup> Annual Conference, Port Elizabeth, South Africa, 1 July 2007.
- 2007 (with S Rahlao, K Esler & S Milton) Corridor interchange and fountain grass (*Pennisetum setaceum*) success in South Africa. PhD student poster at the Society for Conservation Biology 21<sup>st</sup> Annual Conference, Port Elizabeth, South Africa, 1-5 July 2007.
- 2007 Tracking environmental change through birds and bird habitats – bird clubs as first-rate spy agencies. Worcester Bird Club, 4 April 2007.
- 2007 Biodiversity and ecosystems in the big picture – why we need them now more than ever. Conservation International Partner Skills Development Course, 12 February 2007.
- 2007 Birds and environmental change in southern Africa – bird clubs as spy agencies. West Coast Bird Club, 27 January 2007.
- 2006 Tracking environmental change through birds and bird habitats – a look at the Birds & Environmental Change Partnership. Cape Bird Club, Cape Town, 9 November 2006.
- 2006 (with R Altwegg, W Thuiller, R Dean & R Simmons) Integrating demography in bioclimatic models. Birds and Climate Change Brainstorm, South African National Biodiversity Institute, Cape Town, 18-19 September 2006.
- 2006 Tracking environmental change with birds and bird habitats: South Africa's Birds and Environmental Change Partnership Program. Avian Demography Unit, University of Cape Town, 22 June 2006.
- 2006 (with R Simmons) Birds and bird habitats in Africa under environmental change: How are they faring? How can we understand, track, and predict change? Conservation Biology Discussion Group, Percy FitzPatrick Institute of African Ornithology, University of Cape Town, 13 June 2006.
- 2006 (delivered by SJ Rahlao, with KJ Esler & SJ Milton) Current and future vulnerability of South African ecosystems to perennial grass invasion – a case of fountaingrass (*Pennisetum setaceum*). Kimberley Biodiversity Symposium, Rooifontein, Kimberley, South Africa, 6 September 2006.
- 2006 (delivered by SJ Rahlao, with KJ Esler & SJ Milton) Global change and invasive alien perennial grasses in southern Africa – a case of fountaingrass (*Pennisetum setaceum*). Twentieth National Congress of the Southern African Weed Science Society, Bela Bela, South Africa, 16-19 July 2006. (Award for Best Student Presentation)
- 2006 SANBI's Birds and Environmental Change Partnership Program: a fast track to the NBI-SANBI transition. Kirstenbosch Research Centre Annual 'Show & Tell' Research Conference, Cape Town, 8 May 2006.
- 2005 (with R Simmons, GF Midgley & W Thuiller) Climate change vulnerability of southern African birds. Research Poster, National Climate Change Conference, Midrand, Gauteng, 17-20 October 2005.
- 2005 (with GF Midgley, W Thuiller & G Hughes) Climate change impacts in the arid zone of southern Africa: emerging perspectives and projections. Arid Zone Ecology Forum 2005, Barrydale, South Africa, 13 September 2005.
- 2005 (with GF Midgley) Global change, biodiversity, ecosystems and society in Africa (GCBESA): Ecosystem, species and livelihood impacts of global environmental change – policy & conservation management implications. KITE Research Planning Meeting, University of York, UK, 4-5 August 2005.
- 2005 Global change, ecosystems, biodiversity and society in Africa (GCBESA): potential funding from other (non-EU) sources. KITE Research Planning Meeting, University of York, UK, 4-5 August 2005.
- 2005 Environmental change, globalization, and pathways of species invasion. Global Invasive Species Program/ Climate Change Research Group lecture to University of Cape Town Conservation Biology Masters Course students, Cape Town, South Africa, 1 June 2005.
- 2005 Invasive species and global environmental change – the 'lethal cocktail' for biodiversity. Best Practices Workshop: the development of Biodiversity Act Regulations for alien and invasive species in South Africa. Cape Town, South Africa, 24 May 2005.
- 2005 Global change and the Millennium Ecosystem Assessment – fact, fiction and the future. Kirstenbosch Research Centre Seminar Series, South African National Biodiversity Institute, Cape Town, South Africa, 6 May 2005.
- 2005 Global environmental change and the future of African conservation biology. Invited lecture (shortlisted candidate interviewed for the Pola Pasvolsky Chair in African Conservation Biology), University of Cape Town, 28 Feb 2005.
- 2004 (with M Botha) Namibian Important Plant Areas: Management, legal and financial options. Namibian National Important Plant Areas Workshop, Southern African Botanical Diversity Network (SABONET), Windhoek, Namibia, 1-2 December 2004.
- 2004 (with L Jackson) Invasive species – a global issue, with global solutions. In Subtheme Invasive alien species – coping with aliens. Biodiversity Loss and Species Extinctions: Managing Risk in a Changing World, a Global Synthesis Workshop convened at the IUCN World Conservation Forum, Bangkok, Thailand, 18-20 November 2004.
- 2004 Environmental change, globalization, and pathways of species invasion. Global Invasive Species Program lecture to



- University of Cape Town Conservation Biology Masters Course students, Cape Town, South Africa, June 2004.
- 2004 The Global Invasive Species Program and the Global Taxonomy Initiative. 4th Global Taxonomy Initiative Coordination Mechanism, Oaxaca, Mexico, 1 May 2004.
- 2003 (with S Shikongo) National Biodiversity Program – a brief overview. Joint senior level planning workshop of national biodiversity and desertification programs, Windhoek, Namibia, Oct 2003.
- 2003 (with S Milton, symposium co-convenor) Rangelands as dynamic systems: Biodiversity conservation in rangelands – why and how? International Rangeland Congress, Durban, South Africa, 24 July-1 August 2003.
- 2003 (with S Shikongo, N Kisting, J Katjirua, and L Britz) Namibia's biodiversity strategy – links to community action and CBNRM. Namibia Nature Foundation and Africa Resources Trust field visit briefing presentation for SADC participants, Windhoek, Namibia, 7 July 2003.
- 2003 (with G Simeon) Namibia – Ballast water management status. Regional Ballast Water Management Task Force, Saldanha Bay, South Africa, 17-18 March 2003.
- 2002 (with R Simmons, K Roberts, M Seely, L Nakanuku, H Kolberg, & CJ Hay) An integrated framework for wetland health monitoring in dryland Namibia. International Conference on Environmental Monitoring of Tropical and Subtropical Wetlands, Maun, Botswana, 4-7 December 2002.
- 2002 Predicting environmental change in southern Africa – long-term observatories for biodiversity loss, climate change and degradation. Society for Conservation Biology Annual Meeting, Canterbury, UK (Distinguished Service Awardee research talk), 17 July 2002.
- 2002 The Erongo Mountains as an environmental observatory. Environmental Observatories Network of Namibia meeting, Brakwater, Namibia, 21 June 2002.
- 2002 (with J Henschel) Monitoring, predicting and adapting to environmental change. Environmental Monitoring and Indicators Network II, Midgard, Namibia, 13 June 2002.
- 2002 (with J Henschel & R Simmons) An environmental observatory in the Erongo Mountain Nature Conservancy. Annual General Meeting of the Erongo Mountain Nature Conservancy, Omaruru, Namibia.
- 2002 (with KJ Esler) Mountains in arid landscapes – the role of isolated mountains in sustainable rangeland management in the arid west of southern Africa. Policymakers' briefing session, Desertification 2002 Conference, Cape Town, South Africa.
- 2002 (with ST Shikongo, D Duthie and M Kandawa-Schulz) Namibia's biodiversity enabling activities. UNEP/GEF Seminar on Biodiversity Enabling Activities, Sixth Conference of the Parties to the Convention on Biological Diversity, The Hague, Netherlands (delivered by E. Thomas).
- 2002 (with ST Shikongo) Biodiversity and development: Namibia's ten-year strategic plan of action for sustainable development through biodiversity conservation, 2001-2010. Briefing for Ministry of Environment and Tourism Technical Committee on Natural Resources, Windhoek, Namibia, 2 April 2002.
- 2001 (with ST Shikongo) Implementing Namibia's Biodiversity Strategy and Action Plan – land use, management, tenure and environmental sustainability. National Design Workshop, Biodiversity, Land Use and Land Tenure Project, Ministry of Environment and Tourism and Ministry of Lands, Resettlement and Rehabilitation, Windhoek, Namibia, Sept 2001.
- 2001 Feeding time at the zoo: meeting different user needs for environmental datasets. BIOTA (Biodiversity Transect Analysis in Africa) Methodology Workshop, Geographic Institute, Bonn, Germany, Dec 2001.
- 2001 SABSP - Southern African Biodiversity Support Program. Namibia's National Workshop on the SABSP, Windhoek, Namibia, 3 Dec 2001.
- 2001 (with CR Margules and DP Faith) Conservation planning in the real world of land reform, politics, dust and flies. ZSAA Annual Meeting, Symposium on Conservation Planning, Port Elizabeth, RSA.
- 2001 BIOTA Southern Africa and the Namibian National Biodiversity Program – or, 101 ways to cooperate and communicate without really trying. BIOTA (Biodiversity Transect Analysis in Africa) Namibian Workshop, Windhoek.
- 2001 Coastal and Marine Biodiversity Conservation and Management Program (CMBCMP) and the Namibian National Biodiversity Strategy. National Workshop on the CMBCMP, Swakopmund, Namibia.
- 2000 (with S Liyanarchi and L Emerton) Symposium: Agricultural biodiversity as economic capital: Agricultural biodiversity and sustainable livelihoods – the case of dryland ecosystems. 15<sup>th</sup> Global Biodiversity Forum, Nairobi, Kenya.
- 2000 (with R Mpande) Symposium: Social capital and institutions: Agricultural biodiversity and sustainable livelihoods – the case of dryland ecosystems. 15<sup>th</sup> Global Biodiversity Forum, Nairobi, Kenya.
- 1998 (with M Petrie) Symposium: Sexual selection. 22<sup>nd</sup> International Ornithological Congress, Durban, South Africa.

- 1998 (with P Torrekens and J Zeidler and others) Linking desertification and biodiversity – a strategic perspective. Global Biodiversity Forum 12, December 1998, Dakar, Senegal.
- 1997 Biological diversity in Namibia: what the future may bring. University of Namibia Faculty of Science Seminar Series (1997:4), Windhoek.
- 1996 (with M Griffin) Namibian National Biodiversity Program: recent activities and analytical results. Ministry of Environment & Tourism Annual Meeting, Windhoek.
- 1996 Biodiversity conservation and evolutionary ecology – wherever the twain shall meet in Namibia. ZSSA Annual Meeting: Integrating Zoology – Subdisciplines and the Subcontinent. 8-12 July 1996, University of Pretoria, RSA.
- 1995 (with M Griffin) Biological diversity in Namibia: activities and priorities of the Namibian National Biodiversity Program. Ministry of Environment & Tourism Annual Meeting, Windhoek.
- 1994 (with A Robertson, R Simmons, CJ Brown & A Jarvis) Endemism hotspots and the Pleistocene refuge model: an odd case from arid Africa. Poster, Jacques Monod Conference on Evolutionary and Ecological Processes Underlying Biodiversity, Aussois, France.
- 1994 The Metropolitan Open Space System (MOSS) Concept for Namibia. Public lecture proposing a greenbelt urban environmental planning program in Windhoek, and initiating the Namibian Greenspace Project. The Forum, Windhoek.
- 1993 Bird breeding strategies in unpredictable arid environments. Wildlife Society of Namibia, Windhoek.
- 1993 Social costs and benefits of ornament growth for whydah males. (1) Annual 1993 Revolution, Animal Ecology Section, Zoology Department, Uppsala University, Sweden. (2) Sexual selection graduate course, Zoology Department, Trondheim University, Norway.
- 1993 (with EJ Oakes) Fluctuating asymmetry and mate choice in paradise whydahs: an experimental manipulation. (1) Evolution Seminar, Animal Ecology Section, Uppsala University, Sweden. (2) Sexual selection graduate course, Zoology Department, Trondheim University, Norway.
- 1993 Sperm supply, female reproductive constraints, and mating systems. (1) Departmental Seminar, Animal Ecology Section, Uppsala University. (2) Sexual selection graduate course, Trondheim University.
- 1992 Growth of sexual ornaments and dominance in promiscuous finches. (1) Symposium of the Ethology Group of Southern Africa, Golden Gate Highlands National Park, RSA. (2) Second Annual Evolutionary Ecology Meeting, Windhoek, Namibia. (3) 4th International Society of Behavioral Ecology Congress, Princeton University, USA, as poster presentation.
- 1991 Identification of small seed-eating birds of Namibia. Namibian Bird Club, Windhoek.
- 1990 Correlates of male mating success in pin-tailed and shaft-tailed whydahs. Symposium of the Ethology Group of Southern Africa, Stellenbosch, RSA.
- 1990 The mating games that whydahs play. Namibian Bird Club, Windhoek.
- 1989 Badges of fertility and sexual selection in some promiscuous birds. University of Namibia, Faculty of Science Research Committee Seminar, Windhoek, Namibia.
- 1988 Male sexual competence and female competition for fertilizations in a promiscuous brood parasite. Symposium, Ethology Group of Southern Africa, Pretoria, RSA.
- 1987 Sexual selection in a promiscuous parasite: is it really tail length that titillates? University of the Witwatersrand, Zoology Departmental Seminar, Johannesburg, RSA.
- 1987 Controlled burning in an afro-montane savanna, and its effects on raptor foraging patterns. Symposium on Raptor Habitat Analysis and Census Techniques, III World Conference on Birds of Prey, Eilat, Israel.
- 1987 Plumage ornamentation and sexual display intensity in the parasitic shaft-tailed whydah: implications for mate choice theory. Univ of Pretoria Zoology Seminar, Pretoria, RSA.
- 1986 (with R Simmons) Marsh harriers in Canada and South Africa. Lecture to Northern Transvaal Ornithological Society, Pretoria, RSA.
- 1983 Foraging energetics of breeding northern harriers: methods in estimating energy budgets. 2<sup>nd</sup> Symposium on African Predatory Birds, Golden Gate Highlands Natl. Park, RSA.
- 1983 Prey selection and provisioning strategies by northern harriers. 2<sup>nd</sup> Symposium on African Predatory Birds, Golden Gate Highlands Natl. Park, RSA.
- 1983 (with R Simmons) Polygyny and foraging energetics of northern harriers. University of Natal, Zoology Departmental Seminar, Pietermaritzburg, RSA.
-