

CV: JOHN DONALDSON



PROFESSIONAL SUMMARY

A biodiversity scientist with a PhD in Zoology (1991) and >100 scientific publications dealing with ecology, plant conservation biology, biodiversity economy, ecosystem services and general biodiversity issues.

29 years experience establishing and managing biodiversity research and assessment teams focusing on state of biodiversity assessments, biological invasions, wildlife trade, sustainable use, biodiversity economy, climate change, impacts of genetically modified organisms and the management of ecosystem services.

14 years experience at executive management level of a biodiversity institute, leading biodiversity research, assessment & monitoring

International experience in biodiversity science and policy, working with CITES, the Convention on Biodiversity (CBD), IUCN, and IPBES.

Leadership in the development and implementation of large donor-funded projects, including Darwin Initiative (x2), Critical Ecosystem Partnership Fund (x1), Global Environmental Facility (x3), European Commission, Andrew Mellon Foundation, NORAD, and GIZ.

Experience with evaluation of proposals and projects both nationally and internationally

Experience with strategy for biodiversity including development of national and institutional strategies for biodiversity science and evidence

Initiated and implemented capacity building initiatives that have provided training and experience for >200 young biodiversity professionals

Have worked on projects and/or undertaken field work in Africa (South Africa, Botswana, Kenya, Mozambique, Namibia, Eswatini, Tanzania, Uganda, Zimbabwe), Central and South America (Chile, Colombia, Mexico, Panama), South East Asia (China, Thailand, Viet Nam), Australia and the USA.

NATIONALITY

South African

CONTACT INFORMATION

Bordeaux (Unit 415)
239 Beach Rd,
Sea Point
Cape Town
8005
South Africa

Phone: +27 827183253

Email: cycadsg@gmail.com

LinkedIn:

www.linkedin.com/in/john-donaldson-8aa8a512/

SKILLS

- Biodiversity Science
- Conservation Biology
- Biodiversity Economy
- Strategy development & execution
- Team development & management
- Project Development
- Science into policy
- Multilateral Environmental Agreement negotiations
- Executive Management

EDUCATION

PhD Zoology, University of Cape Town, South Africa 1991

MSc Entomology, Rhodes University, 1985

BSC Honours, Rhodes University, South Africa 1983

EMPLOYMENT

POST	RESPONSIBILITIES
<p>Dec 2007– 31 Aug 2020</p> <p>Head of Biodiversity Research, Assessment & Monitoring, SANBI, South Africa</p>	<p>The South African Biodiversity Institute was established in September 2004 and my role, as an executive manager, was to provide strategic leadership in the development of the institute, especially the biodiversity science program. My portfolio focused on research and evidence required to inform policy and decision making and to strengthen SANBI's global position in biodiversity science and evidence. I managed a Division of 50- 90 scientists. The main components were biodiversity assessment (terrestrial , marine and freshwater), monitoring and research to inform decisions relating to priority issues—these were biological invasions, climate change, sustainable use, the biodiversity economy and biosafety. The program of work was strategically linked to regional and global initiatives including GEOBON (biodiversity variables), IUCN (red lists for species and ecosystems, Key Biodiversity Areas), IPBES (pollination, sustainable use, invasives), state of biodiversity reporting for the CBD, inputs into the Meeting of the Parties to the Cartagena Protocol on Biosafety (GMOs), and support for the Scientific Authority (CITES). Scientists in the program participate in, and often lead, elements of this work in international processes.</p>
<p>June 2003– Nov 2007</p> <p>Director/Chief Director: Kirstenbosch Research Centre</p>	<p>My role was to establish a multidisciplinary biodiversity research centre that could support inputs into multilateral environmental agreements. The centre comprised systematics, conservation biology, molecular ecology, global change biology, and ecosystem services. The strategic objective of the program was to inform inputs into CITES, the Convention on Biological Diversity, the UN Framework Convention on Climate Change and the UN Convention to Combat Desertification.</p> <p>As part of this role I worked with the CEO to establish the Centre for Biodiversity Conservation, a facility linked to the research centre and designed to bring together scientists and practitioners. Tenants included IUCN/SSC, Conservation International, WWF, and TRAFFIC and the centre became an important biodiversity hub.</p>
<p>July 1999– May 2003</p> <p>Science Lead-GEF Conservation Farming project</p>	<p>My role was to provide scientific leadership for a multidisciplinary team examining land use systems across South Africa to identify farming practices that optimised use of ecosystem services to achieve biodiversity and agricultural outcomes. The team of 35 comprised biologists, soil scientists, economists, social geographers and modelers. For each of the four sites, we developed models examining the economic and social drivers resulting in biodiversity compatible land use practices.</p>
<p>1990-1999</p> <p>Scientist /Science Leader, National Botanical Institute, South Africa</p>	<p>As a scientist and science leader I was responsible for undertaking research and building a team on plant conservation science. This team had capabilities in Red Listing, systematic conservation planning, ex situ conservation, and threatened species ecology. The team was strongly aligned with the IUCN Species Survival Commission (Red Listing and use of systematic conservation planning) and CITES Plants Committee.</p>
<p>1987-1990</p> <p>Scientist, National Botanical Gardens</p>	<p>As a research scientist I ran my own research projects on plant conservation.</p>
<p>1985 - 1987</p> <p>Taxonomist, Dept of Agriculture</p>	<p>Responsible for taxonomy and curation of parasitic wasps (Ichneumonidae and Braconidae)</p>
<p>1983 –1984</p> <p>Junior Lecturer,</p>	<p>Lecturing undergraduate students at Rhodes University, South Africa</p>

SKILLS & EXPERIENCE

Strategic Leadership in the biodiversity sector

I have led biodiversity strategies at institutional and national level and made inputs into global strategic processes. At national level, I led the development of South Africa's National Biodiversity Research & Evidence Strategy (2014) as well as the development of evidence based regulations for the management of biological invasions (2009). For the South African Biodiversity Institute, I have been involved with corporate strategy (2006-2020) and led the development of a Research Development and innovation Strategy (2019). At international level I participated in strategic planning within the IUCN Species Survival Commission, Steering Committee, was part of the team who developed the Global Strategy for Plant Conservation (2009), and have participated in negotiations for the AICHI targets and the post 2020 biodiversity framework. Skills include strategy development, strategic planning, group facilitation, application of strategy tools.

Science—Policy Interface

I have been involved in science and policy issues at national and international level since 1998 when I was appointed as the African representative on the CITES Plants Committee. I have served as scientific advisor /negotiator to delegations for five CITES CoPs, three CoPs for the Convention on Biological Diversity and led delegations to the CITES Plants and Animals Committees and CBD-SBSTTA. Skills are negotiations, compilation of negotiated texts, understanding of MEAs, strategic priorities for evidence

From 2008-2019 I established and chaired the Scientific Authority for South Africa which is an important interface between science and policy and advises the Minister on sustainable use of biodiversity. This required regular engagement with government, academia and industry in order to compile and assess evidence. Skills included structured decision making, applying Delphi and related methods for group decisions, engagement with stakeholders from industry and NGOs, dealing with Ministerial level reporting.

Since 2009 I have been integrally involved in annual national colloquia to identify policy needs to inform research priorities and co-development of research programs.

In 2018 I was appointed as Co-Chair of the IPBES Sustainable Use Assessment. This process involving ca. 80 experts on all types of use and will result in a summary for policy makers with key findings and policy relevant recommendations. Key skills are focusing expert inputs, motivation, managing conflict, and distilling key messages.

Multi- and trans-disciplinary work

Several of the issues I have dealt with comprise complex socio-ecological challenges that require multi-and trans-transdisciplinary approaches. Since 1999, I have worked with several teams comprised of biologists, economists, social geographers, law makers, enforcement personnel, industry and even intelligence services. The main projects were a 5 year GEF Conservation Farming Project looking at land use; an 18 month commission of enquiry into trade in rhino horn; a 24 month process to develop targeted (smart) approaches to the regulation of invasive species; >10 years working with economists and social scientists on wildlife trade including 2 social science post docs (2019), and IPBES.

Biodiversity Science

Although I have been in science leadership and science policy work since 1991, I still love to engage in research projects. I have maintained an active research presence through students, interns and post doctoral fellows. My work has spanned conservation issues, ecosystem services, sustainable use and wildlife trade. I have published 103 papers, book chapters and books; maintained an h-index of 30; supervised 15 postgraduate students; and hosted several post doctoral fellows.

People management

I have managed several teams over my career ranging from small research groups to a diverse team of 95 scientists based in 7 locations. I have had a particular interest in developing teams with synergies and complementary skills. Skills Include team development, team management, performance management, financial management and conflict resolution.

SKILLS & EXPERIENCE CONT'D

Project development cont'd

I enjoy developing programs and projects, especially in novel areas, and setting up teams to execute them. I have had a lead role in development and execution of:

three GEF projects

- Conservation of globally significant biodiversity through Conservation Farming—this was a targeted research project looking at novel ways of achieving biodiversity gains in agricultural landscapes. (1999-2004)
- Conservation & Management of Pollinators for Sustainable Agriculture –this emerged from the Global Pollinator initiative to address pollinator declines and involved seven developing countries (Brazil, Ghana, India, Kenya, Nepal, Pakistan, South Africa)
- Strengthening institutions, information management and monitoring to reduce the rate of illegal wildlife trade (GWA). Based in Southern Africa

one CEPF project :

- Citizen science to monitor threatened plants. This project was started as a CEPF project and has been expanded and sustained for 15 years (2003-2020)

Two NORAD projects:

- Biosafety of genetically modified maize. Undertaken in collaboration with Nature Norway and Genok (Norway) as one of the first comprehensive studies of a GMO event to assess biodiversity impacts (2008-2013)
- Threatened Species Program– the NORAD funding allowed us to undertake the global first Red List assessment for a biodiverse country (published in 2009)

Two Darwin Initiative projects:

- Establishment of a DNA bank for the Cape Flora (global hotspot) together with Kew Botanic Garden (2004-2007)
- Strengthening seed science in African countries to conserve threatened species (based in Uganda in collaboration with Kew (UK) and experts in Thailand) (2017-2019)

Other:

- Ongoing development and expansion of a large externally funded project on biological invasions which has secured funding of ca. \$3 million per annum over 10 years. This takes the novel approach of targeting emerging invasions before the species become established. It also resulted in the first national assessment of the status of biological invasions. (2008-2020)
- Worked with team members on European Commission projects on pollination and predation services linked to agriculture/ and marine conservation. (2017-2020)
- Currently working with the French Development Agency for work in Mozambique relating to use of biodiversity data to inform development projects

PROFESSIONAL SOCIETIES

- American Association for the Advancement of Science
- Botanical Society of America
- British Ecological Society
- Society for Conservation Biology

EXTRAORDINARY APPOINTMENTS (last 10 years)

Co-Chair of the IPBES global assessment on the Sustainable Use of Wild Species (2018-present). The assessment brings together ca. 80 natural and social scientists from 35 countries to assess sustainable use of animals, plants and fungi across terrestrial, marine and freshwater ecosystems.

Chair: South African Scientific Authority (2008 – 2019) this is a panel of 15 experts on plants and animals (marine and terrestrial) that reports to the Minister of Environmental Affairs on the sustainable use of biodiversity.

Chair/Co-Chair: IUCN/SSC Plant Conservation committee (2009 – present) – this is a group of 15-20 scientists from all over the world who advise IUCN/SSC on plant conservation issues. In the past five years we have had a particular focus on developing links and strengthening plant work in Indonesia, Brazil, India, Colombia, and Madagascar. As Chair, I also served on the IUCN/SSC Steering Committee

Chair/ Co-chair: IUCN/SSC Cycad Specialist Group (1996 - present). This is a group of experts mostly from developing countries focusing on cycad conservation. As part of this work, I have worked with partners in Kenya, Mozambique, Uganda, Zimbabwe, Colombia, Panama, Mexico, China, Viet Nam, and Thailand to develop and strengthen conservation projects.

Board Member: Department of Science & Technology (DST/NRF) Centre of Excellence in Invasions Biology (2011-present). This committee provides strategic guidance to the Centre of Excellence, which is one of the leading global centres for the study of biological invasions.

Board Member: DST-NRF Centre of Excellence on Birds as Indicators of Global Change (Percy Fitzpatrick Institute of African Ornithology) (2007- present)

Chair: Committee 1 of the UN-CITES Conference of the Parties, 13-25 March 2010 (this is the decision making body of the CITES convention responsible for decisions regarding trade in endangered species.

Chair: Research Advisory Panel for Dept of Environmental Affairs Natural Resource Management Programs (2012-2018). This panel established and reviewed research projects to support natural resource management.

Member of the Steering committee for the GEF/ FAO project on the conservation and sustainable use of pollinators (2005 - 2012) involving seven countries (Brazil, Ghana, Kenya, South Africa, India, Nepal and Pakistan)

Member of the Advisory Panel for the SOS Fund of the World Bank, GEF and IUCN (2009-2013)

Professor, Life Sciences Dept, University of Cape Town, South Africa (2010-2020)

REFERENCES

Ms Carmel Mbizvo, Acting Chief Executive, South African National Biodiversity Institute (c.mbizvo@sanbi.org.za). Ms Mbizvo was my line manager from 2009-2020.

Mr Shonisani Munzhedzi, Deputy Director General Biodiversity & Conservation, Department of Environment, Forestry & Fisheries, South Africa (SMunzhedzi@environment.gov.za). Mr Munzhedzi is head of the government department with which I interacted as part of my role in providing strategic leadership and evidence to inform policy and decision making.

Ms Wadzi Mandivenyi, Head of Biosafety, CBD Secretariat, Montreal. (Wadzanayi.mandivenyi@un.org/ wadzanayigm@gmail.com). I worked with Ms Mandivenyi on several projects including a NORAD project on biosafety, a GEF project to strengthen institutions relating to wildlife trade, and projects on biological invasions.

Dr Anne Larigauderie, Executive Secretary, IPBES, Bonn (anne.larigauderie@ipbes.net). I met Dr Larigauderie through Diversitas and have been working with IPBES on the Sustainable Use assessment.

SELECT PUBLICATIONS (103 published papers available on Google Scholar- h-index =30)**Conservation**

- Swart, C., Rowsell, R., Donaldson, J.S. & Barker, N. 2019. Population structure and survival of the critically endangered cycad *Encephalartos latifrons* in South Africa. *South African Journal of Science* 127: 80-90.
- Bachman, S. et al 2019. Progress, challenges and opportunities for Red Listing. *Biological Conservation* 234: 45-55.
- Stuart et al. 2017. IUCN's encounter with 007: safeguarding dialogue to further conservation. *Oryx* doi101017/S0030605317001557
- Brummit, N. et. al. 2015. Plants in the red: a baseline global assessment for the IUCN Sampled Red List Index for Plants. *PlosOne*. DOI: 10.1371/journal.pone.0135152
- Raimondo, D.C., von Staden, L. & Donaldson, J.S. 2013. Lessons from assessing a megaflora: the South African experience of Red Listing >20 000 plant taxa. *Annals of the Missouri Botanical Garden*. 99:221–230.
- Dana, G., Kapuscinski, A.R., Donaldson, J.S. 2012. Testing stakeholder involvement in environmental risk analysis: a case study of biodiversity risk assessment in South Africa. *Journal of Environmental Management* 98: 134-146.
- Hoffmann, et al, 2010. The impact of conservation on the status of the world's vertebrates. *Science* 330:1503-1509.
- Donaldson, J.S. 2009. Botanic garden science for conservation and global change. *Trends in Plant Science* 14: 608-613.
- Donaldson, J.S. 2006. Ex Situ Plant Conservation: Supporting Species Survival in the Wild. *S.A. Journal of Botany* 72:

Climate Change

- Nackley, L.L., Midgley, G.F., Bösenberg, J.D. & Donaldson, J.S. 2018. Cycads' non-saturating response to carbon dioxide enrichment indicates Cenozoic carbon limitation. *Austral Ecology*. doi:10.1111/aec.12581
- Kuhlmann, M., Guo, D., Veldtman, R. & Donaldson, J.S. 2012. Warming up a hotspot. Climate change and bees in a South African centre of biodiversity. *Diversity & Distributions*.1-13.
- Guo, D., Kuhlmann, M., Guo, R., Veldtman, R., Donaldson, J. and Midgley, G.F. (2010). Range shift of South African Rediviva bee species under climate change impacts. In: S. Baby, P.S. Sandhu & Yi Hang, Proceedings of 2010 International Conference on Environmental Science and Development. World Academic Union, UK. pp 313-317, ISBN 978-1-84626-024-7.
- Bomhard, B., Richardson, D.M., Donaldson, J.S., Midgley, G.F., Raimondo, D.C., Rebelo, A.G., Rouget, M. & Thuiller, W. 2005. Evaluating extinction risk from future land use and climate change—a case study for the Proteaceae in the Cape Floristic Region in South Africa. *Global Change Biology* 11: 1-17.

Wildlife Trade & Biodiversity Economy

- Melin, A., Grace, O.M., Duckworth, G.D., Donaldson, J.S. and Milner-Gulland E.J. 2017. A preliminary assessment of the social and ecological characteristics of an expanding natural resource industry: Aloe harvesting in South Africa. *Economic Botany* 7:58-74.
- Smith, M.J., Benítez Díaz, H., Clemente-Muñoz, M.A., Donaldson, J.S., Hutton, J., McGough, N.H., Medellin, R.A., Morgan, D.H.W., O'Criodain, C., Oldfield, T.E.E., Schippmann, U., & Williams, R.J. 2011. The role of biological information in CITES non-detrimental findings: current practices and scientific research opportunities. *Biological Conservation* 144: 82–91
- Donaldson, J.S. 2006. Preventing plant extinctions due to unsustainable international trade. In C.K. Willis (ed.) *Conserving South Africa's Plants; A South African response to the Global Strategy for Plant Conservation*. SANBI Biodiversity Series 1: 47-49, South African National Biodiversity Institute, Pretoria.
- Donaldson, J.S. CITES and DNA banking. 2005. In: Savolainen, V., Powell, M.P., Davis, K., Reeves, G. and Corthals, A. (Eds) *DNA and Tissue Banking for Biodiversity and Conservation: Theory, Practice, and Uses*. Kew and IUCN.
- Raimondo, D., Newton, D., Fell, C., Donaldson, J.S. & Dickson, B. 2005. Devil's Claw, *Harpagophytum* spp. in South Africa: conservation and livelihoods issues. *Traffic Bulletin* 20 (3): 99-112.
- Raimondo, D.C. & Donaldson, J.S. 2003. Responses of cycads with different life histories to the impact of plant collecting: simulation models to determine important life history stages and population recovery times. *Biological Conservation* 111: 345-358.

Ecosystem services

- Melin, A., Rouget, M., Midgley, J.J. & Donaldson, J.S. 2014. Pollination ecosystem services in South African agricultural systems. *South African Journal of Science*. <http://dx.doi.org/10.1590/sajs.2014/20140078>
- Carvalho, L.G., R.Veldtman, A. G. Shenkute, G. B. Tesfay, C. W.W. Pirk, Donaldson, J.S. & S. W. Nicolson. 2011. Natural and within-farmland biodiversity enhances crop productivity. *Ecology Letters*. doi: 10.1111/j.1461-0248.2010.01579
- Mills, A.J., M. Fey, B. Kgope, J. Donaldson, & J. D. Bosenberg. 2011. Detecting the onset of rangeland degradation using soil respiration and boundary lines: preliminary findings from the Nama Karoo. *African Journal of Range and Forage Science*. **28**(2): 87–92
- O'Farrell, P.J., Donaldson, J.S. and Hoffman. 2009. Local benefits of retaining natural vegetation for soil retention and hydrological services. *South African Journal of Botany*. 75: 573-583
- O'Farrell, P., Donaldson, J.S. & Hoffman, M.T. 2007. The influence of ecosystem goods and services on livestock management practices on the Bokkeveld Plateau, South Africa. *Agriculture, Ecosystems and Environment* 122: 312-324.
- Mills, A, O'Connor, T., Donaldson, J.S., Fey, M., Skowno, A., Sigwela, A, Lechmere-Oertel, R., & Bösenberg, D.J. 2005. Ecosystem carbon storage under different land uses in three semi-arid shrublands and a mesic grassland in South Africa. *South African Journal of Plant and Soil* 22: 183-190.
- Donaldson, J.S., Mills, A., O'Farrell, P., Todd, S., & Nänni, I. 2003. Conservation farming with biodiversity in South Africa: a preliminary evaluation of ecosystem goods and services on the Bokkeveld Plateau. In: J. Lemons, R. Victor & D. Scaffer (eds) *Conserving Biodiversity in Arid Regions, Best Practices in Developing Nations*. Kluwer Academic Publishers, Dordrecht.