

Dr Robert Davies (OneWorld Associate)

Nationality British

Education PhD Zoology (1994)
University of Pretoria, South Africa

MSc Zoology (1985)
University of Pretoria, South Africa

BSc (Hons) Zoology (1981)
University of Exeter

Languages English (native speaker)

Employment record

2011 - Present Director
Habitat INFO

2008 - 2011 Private Consultant
United Kingdom

2005 - 2008 Manager
West Wales Biodiversity Information Centre

2002 - 2004 Director of Development
The Hawk and Owl Trust

1996 - 2004 Private Consultant
South Africa and United Kingdom

1991 - 1993 Director
African Raptor Information Centre

Relevant professional experience (*selected*)

January 2018 – Dec 2018 “Climate Change Hazard, Vulnerability and Risk Assessment” Study to the Benefit of the City of Cape Town

AFD – Agence Française de Développement, City of Cape Town

The aim of this study is to assess the nature and spatial location of hazards, vulnerabilities, and risks in Cape Town given current climate change projections, to enable the City to make decisions not only on new investments, but also on how it should potentially adjust existing projects to ensure better climate proofing. Activities conducted: high resolution spatial maps illustrating relative levels of vulnerability throughout the City of Cape Town, vulnerability maps and underlying data, showing individual exposure, sensitivity and adaptive capacity layers; support the development of a consolidated hazard, vulnerability, and risk assessment including ranking of risks: analysis of the stacking of hazards and vulnerabilities.

January 2018 – July 2018	<p>Climate Change Risk & Vulnerability Assessment in Luapula, Muchinga, Northern & Western Provinces,</p> <p>Zambia Ministry of National Development Planning, under the Pilot Program for Climate Resilience (PPCR)</p> <p>GIS and Information Systems Expert</p> <p>Identify responsive and feasible investments in climate resilience, enhanced water resource management and improved disaster risk reduction</p>
Sep - Dec 2017	<p>Northern Zambia: 1) Landscape Vulnerability Risk Assessment Baseline; and 2) Development of a Decision Support Tool</p> <p>TRALARD-Zam under the Pilot Program for Climate Resilience (PPCR)</p> <p>Zambian National Climate Change Secretariat (NCCS)/Zambian PPCR Implementation Unit in Ministry of National Development Planning / World Bank</p> <p>[position]</p> <p>...</p>
Oct 2016 – Mar 2017	<p>Hotspot mapping of poisoning threat for the multi-species action plan on African vultures</p> <p>Wageningen University and Research (Dutch Govt)</p> <p>Consultant</p> <p>Hotspot mapping of poisoning threat for the multi-species action plan on African vultures, on behalf Wageningen University and Research (Dutch Govt)</p>
2016	<p>SCRiKA - Strengthening Climate Resilience in the Kafue Sub-basin</p> <p>Pilot Program for Climate Resilience (PPCR)</p> <p>World Bank/ African Development Bank, National Climate Change Secretariat in the Ministry of National Development Planning (with One World)</p> <p>Consultant</p> <p>The project aims to strengthen adaptive capacity of rural communities, reducing poverty and enhancing food security. Climate resilience mapping for the Kafue Basin, Zambia:</p> <ul style="list-style-type: none"> • Identification of climate hotspots • Preparation of map materials for workshop • Assistance in facilitating workshop in Livingstone
2013 - 2016	<p>Resilience in the Limpopo River Basin Programme (RESILIM)</p> <p>USAID, Chemonics and OneWorld</p> <p>Project administrator and spatial data developer</p> <ul style="list-style-type: none"> • Project administration and development of spatial data layers for RESILIM Programme for OneWorld Sustainable Investments. • Focus was placed on improving the resolution of data used during the RCCP analysis and where possible accessing census data, as well as on improving biodiversity and wetlands data and incorporating new data relevant to water quality and access.

	<ul style="list-style-type: none"> • Responsible for the presentation of these maps at a workshop for the Botswana government in April 2014 (Maun, Botswana). • Outputs included summary maps for reports and a methodology report. • Use of high resolution census data • Use of downscaled, high resolution and long term climate projections
April 2013 – January 2015	<p>Benchmarking the Business of Agriculture The World Bank Consultant</p> <p>Phase 1: Overseeing and research for pilot development indicators of rural remoteness in Columbia, Tanzania and Vietnam. Production of a report containing maps, statistics and recommendations for future work. Outputs included summary maps for reports and a methods report.</p> <p>Phase 2: Development of an analysis, which can be repeated regularly using up-to-date data. Development of a new global travel time dataset using ADCi WorldMap data. Further development of our rural access analysis using ORNL LandScan population data. Expansion to 10 countries worldwide and ultimately 80. The production of reports, maps and statistics.</p>
2013-2014	<p>Development of baseline data catalogue and pilot investment impact model for the <i>Horn of Africa (Djibouti, Eritrea, Ethiopia, Somaliland, Somalia, Kenya, Tanzania, Sudan, South Sudan)</i> International Livestock Research Institute (ILRI) Project administrator and spatial mapping expert</p> <ul style="list-style-type: none"> • Project administration and technology development for <i>climate resilience mapping in the Horn of Africa (IGAD region)</i>, including data classification and cataloguing in order to map resilience (with over 400 datasets identified), overlay models and development of a spatial tool for the region for identifying where resilience building investments will be most beneficial; development of a seasonal forecast model and drought model for estimating livestock mortality. • Assessment of resilience using social, economic and environmental systems (method of systems developed in-house by habitat INFO) • Development of a pilot spatial tool for identifying areas where investment is necessary for both generic shocks and droughts. • Short term climate shocks – development of a model to identify the impacts on rangeland condition and livestock mortality using satellite rainfall estimates • Development of national baselines and a spatial search tool to process indicators of economic, ecological and social resilience to help guide funding agencies target their interventions.
2013	<p>An Assessment of Climate Resilient Livelihood Options in Drought Prone Areas - Pilot Programme for Climate Resilience (PPCR) in Mozambique World Bank (with OneWorld) GIS Mapping Expert</p> <p>GIS risk and vulnerability mapping, with focus on improving the resolution of data used during the RCCP analysis and where possible accessing census data.</p>

Conducted a risk and vulnerability assessment, desktop and participatory assessments and fieldwork to identify feasible resilience building investments, especially in response to the high risk and incidence of drought in southern Mozambique. Evaluate the vulnerability of the population and their livelihood strategies using *inter alia* household economy surveys to assess vulnerability to climate change and recommend adaptation options. Particular attention was paid to gender equality. Maps were produced for both current and 2050 conditions. Outputs included summary maps for reports and a method report for OneWorld Sustainable Investments.

- Extensive catalogue of environmental datasets collated
- Development of datasets relating to levels of protection and habitat transformation

Sep 2011 – High Resolution Risk and Vulnerability Mapping for the Zambezi River Basin
March 2012 (Middle and Lower Reaches) to Inform Climate Resilient Development in the Basin

Climate and Development Knowledge Network (CDKN) and World Bank

Consultant

This project followed on from the mapping component of the Regional Climate Change Programme RCCP for the southern African Development Community (SADC) with a geographic focus on a major hotspot identified for the Zambezi Valley. The methods were similar to the RCCP but more data layers were accessed through census results etc. to achieve the improved resolution. Habitat INFO carried out extensive raster analysis to reveal and measure geographic patterns in indicators of exposure (current and 2050), sensitivity and adaptive capacity as per the IPCC guidelines. Downscaled climate projections were accessed at 1 km² resolution to improve the resolution of 2050 assessments. High-resolution census data was accessed for Malawi and our analysis showed that Southern Malawi was particularly vulnerable to, and at risk from climate events in the future. Outputs included summary maps for reports, hardcopy maps for meetings and a methods report for OneWorld Sustainable Investments.

2009-2011 Regional Climate Change Programme (RCCP) SADC region
DFID (UK Government)

GIS and mapping expert

Adaptation responses required in the SADC region to the impacts of climate change on MDGs, human health, transboundary water resources and southern African cities - exposure to disaster. (Chapman, Midgley et al. 2011; van Hasselt and Chapman, 2012, Young et al, 2010; Pegram et al., 2011; Chapman & Sassman, 2011).

Hotspot analysis to identify communities most in need of assistance in adapting to the expected harmful effects of climate change across southern Africa

2008 - 2011 Department for International Development, UK (DFID)/
For the Regional Climate Change Programme (RCCP)

Hotspot analysis using GIS mapping to identify communities most in need of assistance in adapting to the expected harmful effects of climate change across southern Africa

2008 present - Independent consultant

Projects have included: GIS mapping for ***Strengthening Climate Resilience in the Kafue Sub-basin (SCRICA)***; mapping hotspots in the Southern African Development Community to assist the Regional Climate Change Programme allocate resources for adaptation; modelling the biodiversity value at fine scale for proposed settlement areas in Carmarthenshire and Ceredigion, Wales; detailed mapping (to hedgerow level) of habitat connectivity in West Wales; IT support (ESRI GIS) to biological records centres; customisation of mobile recording software for cetacean sightings off the Welsh coast and for trans-Africa raptor road counts; data collation for African raptor conservation atlas; completion of plates for African raptor fieldguide.

1996 - 2004 Private consultant

Projects included:

- In-depth costs: benefits of predators and grouse moor profitability.
- Compiled a detailed electronic dataset of protected areas within the SADC region (incorporated to the World Database on Protected Areas).
- Projects with Peace Parks Foundation, Conservation International, WWF-US: including work on a successful submission to KfW for funding transfrontier parks in southern Africa (DM4.9m); submission to UNF for an international resource centre on transboundary parks;
- Organiser: BBC filming in South Africa for David Attenborough's Life of Birds Series.
- Supervisor to the Peregrine Fund, University of Pretoria and University of Cape Town: Pilot projects on mapping endangered raptor species in Madagascar and on mainland Africa in relation to their habitats and protected areas (pilots to a wider proposal on Africa-wide biodiversity information, submitted to WCMC / UNEP),

Publications (selected)

- Midgley, S., Davies, R. & Chesterman, S. 2011. *Climate Risk and Vulnerability Mapping in Southern Africa*. OneWorld Sustainable Investments: Knowledge for Adaptation Series, Cape Town.
- DAVIES, R. 2005. Predation and the profitability of grouse moors. *British Wildlife* 16 (4): 339-347.
- DAVIES, R. 2003. Maltese Crossings. *BBC Wildlife Magazine* 21(3): 38-40.
- DAVIES, R. 2003. Unlevel Crossing - Central Mediterranean Flyway. *Africa Birds and Birding* 8(2): 20-21.
- MOORE, J.L., MANNE, L., BROOKS, T., BURGESS, N.D., DAVIES, R., RAHBK, C., WILLIAMS, P. & BALMFORD, A. 2002. The distribution of cultural and biological diversity in Africa. *Proc. R. Soc. Lond. B* 269: 1645-1653.
- DAVIES, R.A.G. 2001. The Peace Parks Concept. pages 38-39 in: Conservation – The Importance of the Environment for Development in Namibia (a special edition of Travel News Namibia, published by Venture Publications / Ministry of Environment and Tourism)
- DAVIES, R. 2001. Maltese hunters still killing raptors. *Africa Birds and Birding* 6(2): 18-19.
- DAVIES, R.A.G. & FERGUSON, J.W.H. 2000. The influence of predation by Black Eagles *Aquila verreauxii* on Rock Hyrax *Procavia capensis* numbers in the arid Karoo. In: Chancellor, R.D. & B.-U. Meyburg eds. Raptors at Risk. Proceedings of the Fifth World Conference on Birds of Prey, Midrand, South Africa, August 1998, WWGBP / Hancock House.
- CLARK, W.R. & DAVIES, R.A.G. 2000. Taxonomic problems in African diurnal raptors. In: Chancellor, R.D. & B.-U. Meyburg eds. Raptors at Risk. Proceedings of the Fifth World Conference on Birds of Prey, Midrand, South Africa, August 1998, WWGBP / Hancock House.
- DAVIES, R.A.G. 1999. The extent, cost and control of livestock predation by eagles with a case study on black eagles (*Aquila verreauxii*) in the Karoo. *Journal of Raptor Research* 33: 67-72.
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MILTON, S.J., DAVIES, R.A.G. & KERLEY, G. 1999. Population-level Dynamics (Mammals). Chapter 11 In: Karoo Ecology, Eds. S.J. Milton & W.R.J. Dean, Cambridge University Press.

DAVIES, R. 1999. The Kalahari Factor. Talon Talk (newsletter of the Raptor Conservation Group, EWT) 15: 6-10.

DAVIES, R.A.G. & ALLAN, D.G. 1997. Black Eagle *Aquila verreauxii*. Pages 175-177. In: The Atlas of Southern African Birds (Volume 1: Non-passerines). Eds. J. A. Harrison, D.G. Allan, L.G. Underhill, M. Herremans, A.J. Tree, V. Parker, & C.J. Brown. Birdlife South Africa, Johannesburg. 785pp.

DAVIES, R. 1997. Rock dassie *Procavia capensis*. Page 229. In. The Complete Book of Southern African Mammals. Eds: G. Mills & L. Hes. Struik Winchester, Cape Town, 356pp. DAVIES, R. 1997. Yellow-spotted rock dassie *Heterohyrax brucei*. Page 229. In. The Complete Book of Southern African Mammals. Eds: G. Mills & L. Hes. Struik Winchester, Cape Town, 356pp.

DAVIES, R. 1997. Caracal *Felis caracal*. Page 186. In. The Complete Book of Southern African Mammals. Eds: G. Mills & L. Hes. Struik Winchester, Cape Town, 356pp.

ALLAN, D.G. & DAVIES, R.A.G. 1995. The field identification of the bustards and korhaans (Otididae) of southern Africa. *Bulletin of the African Bird Club* 2: 16-24.

DAVIES, R.A.G. 1993. A comparison of veld utilisation by springbok and Merino sheep. In. Skinner, J.D. and Dott, H.M., eds, Proceedings of a workshop on springbok, pp. 17-21. Zoological Society of Southern Africa and Eastern Cape Game Management Association, Graaff-Reneit.

DAVIES, R. 1993. Innocent until proven guilty. A guide to help farmers identify what is killing their lambs (with emphasis on signs of eagle predation). Endangered Wildlife Trust & South African Eagle Insurance, Johannesburg.

DAVIES, R.A.G. & VOGEL, J.C. 1992. Radiocarbon dating of sticks from a black eagle nest in the Karoo, South Africa. *Gabar* 7: 24-25.

ALLAN, D.G. & DAVIES, R.A.G. 1992. Identification of juvenile Verreaux's Eagle - a correction. *British Birds* 85: 680-682.

BOSHOFF, A.F., PALMER, N.G., AVERY, G. DAVIES, R.A.G. & JARVIS, M.J.F. 1991. Biogeographical and topographical variation in the prey of the Black Eagle in the Cape Province, South Africa. *Ostrich* 62: 59-72.

DAVIES, R. 1991. Mixing game with sheep. *Farmer's Weekly Nov 15, 1991*: 14-16.

DAVIES, R. 1990. Samburu - a young black eagle. *Toktokkie* 11 (3): 8-10.

DAVIES, R.A.G. & RANDALL, R.M. 1989. Historical and geographical patterns in eggshell thickness of African Fish Eagles *Haliaeetus vocifer*, in relation to pesticide use within southern Africa. Pages: 501-513. In: Meyburg, B.-U. & R.D. Chancellor eds. Raptors in the Modern World, WWGBP: Berlin, London & Paris.

DAVIES, R.A.G. 1989. Predation attempt by Booted Eagle on juvenile Rock Hyrax. *Gabar* 4: 18-19.

DAVIES, R. 1989. Where dassies dare. *Custos* 17: 53-57

DAVIES, R.A.G. 1989. How thick an African Fish Eagle egg shell? *Gabar* 4: 4-6.

DAVIES, R.A.G. 1988. Problem eagles and conservation solutions. *Gabar* 3: 60-66.

SKINNER, J.D., DOTT, H.M., VAN AARDE, R.J., DAVIES, R.A.G. & CONROY, A.M. 1987. Observations on a population of springbok *Antidorcas marsupialis* prior to and during a Karoo drought. *Trans. Roy. Soc. S. Afr.* 46: 191-197.

SKINNER, J.D., DAVIES, R.A.G., CONROY, A.M. & DOTT, H.M. 1986. Productivity of springbok *Antidorcas marsupialis* and Merino sheep *Ovis aries* during a Karoo drought. *Trans. Roy. Soc. S. Afr.* 46: 149-164.

DAVIES, R.A.G. & SKINNER, J.D. 1986. Temporal activity patterns of springbok *Antidorcas marsupialis* and Merino sheep *Ovis aries* during a Karoo drought. *Trans. Roy. Soc. S. Afr.* 46: 133-147.

DAVIES, R.A.G. & SKINNER, J.D. 1986. Spatial utilisation of an enclosed area of the Karoo by springbok *Antidorcas marsupialis* and Merino sheep *Ovis aries* during drought. *Trans. Roy. Soc. S. Afr.* 46: 115-132.

DAVIES, R.A.G., BOTHA, P. & SKINNER, J.D. 1986. Diet selected by springbok *Antidorcas marsupialis* and Merino sheep *Ovis aries* during Karoo drought. *Trans. Roy. Soc. S. Afr.* 46: 165-176.

DAVIES, R. 1986. Accipitrine aerobatics. *Gabar* 1: 28-29.

DAVIES, R. 1982. The games that Golden Eagles play. *Hawk Trust Annual Report* 12: 27-28.

DAVIES, R. 1976. Adventures with tame and wild kestrels. *The Austringer* 9: 8-10.

Publications emanating:

DAVIES, R. in press. Life in the Grip of the Great Dry – a Natural History of the Karoo. Black Eagle Publishing, Cape Town.

CLARK, W. & DAVIES, R. in prep. A Field Guide to the Raptors of Africa. A&C Black, London.

DAVIES, R., et al. in prep. A Conservation Atlas for Africa's Birds of Prey. A&C Black, London.
