

Samual Williams

PhD, MRes, BSc (Hons.), FLS, MRSB, CBiol, CSci, AFHEA, Pr.Sci.Nat.

samualwilliams.com

Education

Doctor of Philosophy (PhD) in Biological Anthropology, Durham University - 2012

Thesis title: The impact of land reform in Zimbabwe on the conservation of cheetahs and other large carnivores.

Supervisors: Russell Hill & Rob Barton

Master of Research (MRes) in Biological Science, University of Manchester - 2004

Thesis title: Studies of tropical vertebrates: Ecology, behaviour and morphology.

Supervisors: Derek Yalden, Matthew Cobb & Andrew Gray

Bachelor of Science with Honours (BSc Hons.) in Biological Science, University of Manchester - 2003 (2:1)

Thesis title: Effect of Mirror Image Stimulation on the Behaviour of Mandrills (*Mandrillus sphinx*) (awarded a first)

Research experience

Postdoctoral Research Fellow, University of Venda (South Africa) - 2017-present

My research focusses on the conservation ecology of carnivores in Africa. I have a particular interest in mitigating threats to wildlife and assessing the ecosystem services provided by carnivores.

Research Coordinator, Primate and Predator Project (South Africa) – 2011-2016

I managed a research and conservation initiative that studies ecology, conservation and animal behaviour using the large carnivore and primate community of the Soutpansberg Mountains, South Africa, as a model system. This included estimating the population dynamics of leopards using camera traps, studying the spatial ecology and interactions between leopards and baboons using GPS collars and proximity tags, and mitigating conflict between humans and wildlife using GPS telemetry and community engagement. I also collaborated with other organisations to develop adaptive management strategies for leopards at a national level.

Honorary Research Associate, Durham University - 2012-present

My affiliation with Durham University supports my postdoctoral research and forms strong links with a top research institution.

Cheetah Project Coordinator, Dambari Wildlife Trust (Zimbabwe) – 2006-2009

I ran a project in Zimbabwe that focussed on conservation research and outreach for cheetahs. This entailed studying the population dynamics of medium and large mammals, and establishing levels of human-wildlife conflict in relation to land reform, using spoor surveys and interviews. I used the data that I collected towards my PhD. I also ran an outreach project that aimed to enhance coexistence between people and wildlife.

Field Team Leader, Operation Wallacea (Indonesia & Honduras) – 2003-2006

For four field seasons (each lasting two months) over three years I led research teams to study primate behaviour and ecology in several different tropical forest environments. This formed part of my Masters research, for which I produced the first estimate of the population size and density of the Buton macaque, using DISTANCE analysis.

Research Associate, DanioLabs (Cambridge, UK) – 2005-2006

I conducted behavioural assays and other laboratory research and data analysis using the zebrafish as a model organism.

Teaching experience

Teaching Assistant, Durham University - October 2009-June 2011

I planned and delivered tutorials and practicals in undergraduate courses on statistical analysis and evolution, and marked student assessments.

Durham University Teaching and Learning Award - May-October 2010

Completing this course enabled me to undertake professional development in higher education and gain accreditation as an Associate Fellow of the Higher Education Academy (AFHEA).

Skills

Data analysis & software: I have strong skills in statistical analysis using R and various R packages such as ggplot2, secr, and tlocoh. I have experience with various ecological analyses using both frequentist and Bayesian frameworks, including spatial capture recapture, occupancy modelling, and distance sampling. I am also familiar with SPSS, QGIS, ArcGIS, Microsoft Office, iWork and LibreOffice.

Teamwork: I have established collaborations with other research programmes such as Panthera, Limpopo Leopard Project, and governmental agencies. As a member of Russell Hill's lab I have collaborated with other postdoctoral researchers and postgraduate students, and led teams of international and local staff and students to conduct research and conservation activities.

Communication: I have experience writing peer-reviewed articles for scientific journals, writing popular newspaper articles, presenting at conferences, and managing the social media presence for the Primate and Predator Project (blog, Facebook group, Twitter, and Instagram).

Contributions to scholarly publishing: I act as an Associate Editor for Wildlife Research, and a Subject Editor for Nature Conservation. I have reviewed articles for journals such as Scientific Reports, Ecology and Evolution, Biodiversity and Conservation, PLoS One, Nature Conservation, African Journal of Wildlife Research, African Zoology, and Koedoe.

Membership of societies Fellow of the Linnean Society of London (FLS)
Member of Royal Society of Biology (MRSB)
Chartered Biologist (CBiol) and Chartered Scientist (CSci)
Associate Fellow of the Higher Education Academy (AFHEA)
Registered as a Professional Natural Scientist (Pr.Sci.Nat) with SACNASP
Member of the Society for Conservation Biology
Member of the Southern African Wildlife Management Association
Member of the Zoological Society of Southern Africa

Publications

Williams, K.S., Pitman, R.T., Mann, G.H., Whittington-Jones, G., Comley, J., **Williams S.T.**, Hill, R.A., Balme, G.A., Parker, D.M. (in press) Utilising bycatch camera trap data for broad-scale occupancy and conservation: a case study on brown hyaena (*Parahyaena brunnea*).

Ayers, A.M., Allan, A.T.L., Howlett, C., Tordiffe, A.S.W., Williams, K.S., **Williams, S.T.**, Hill, R.A. (in press) Illuminating movement? Nocturnal activity patterns in chacma baboons.

Williams, S.T., Collinson, W., Patterson-Abrolat, C., Marneweck, D.G, Swanepoel, L.H. (2019) Using road patrol data to identify factors associated with carnivore roadkill counts. PeerJ 7: e6650. doi: [10.7717/peerj.6650](https://doi.org/10.7717/peerj.6650).

Baauw A.H., Heyne H., Williams K.S., Hill R.A., Heitkönig I.M.A., **Williams, S.T.** (2019) First records of *Hyalomma rufipes* and *Ixodes neitzi* (Acari: Ixodidae) found on large carnivores in South Africa. Ticks and Tick-Borne Diseases 10 (1): 128-131. doi: [10.1016/j.ttbdis.2018.08.011](https://doi.org/10.1016/j.ttbdis.2018.08.011).

Loock, D.J.E., **Williams, S.T.**, Emslie, K.W., Matthews, W.S., Swanepoel, L.H. (2018) High carnivore population density highlights the conservation value of industrialised sites. Scientific Reports 8: 1-9. doi: [10.1038/s41598-018-34936-0](https://doi.org/10.1038/s41598-018-34936-0).

Parchizadeh, J., Shilling, F., Gatta, M., Bencini, R., Qashqaei, A.T., Adibi, M.A., **Williams, S.T.** (2018) Roads threaten Asiatic cheetahs in Iran. Current Biology 28: R1141–R1142. doi: [10.1016/j.cub.2018.09.005](https://doi.org/10.1016/j.cub.2018.09.005).

Williams, K.S., **Williams S.T.**, Fitzgerald L.E., Sheppard E.C., Hill R.A. (2018) Brown hyaena and leopard diets on private land in the Soutpansberg Mountains, South Africa. African Journal of Ecology 56 (4): 1021-1027. doi: [10.1111/aje.12539](https://doi.org/10.1111/aje.12539).

Williams S.T., Maree N., Taylor P., Belmain S.R., Keith M., Swanepoel L.H. (2018) Camera trap and questionnaire dataset on ecosystem services provided by small carnivores in agro-ecosystems in South Africa. Data in Brief 18: 753–759. doi: [10.1016/j.dib.2018.03.071](https://doi.org/10.1016/j.dib.2018.03.071).

Parchizadeh, J., Gatta, M., Bencini, R., Adibi, M., **Williams, S.T.** (2018). Urgent action required to conserve the Critically Endangered Asiatic cheetah *Acinonyx jubatus venaticus*. Oryx 52 (2): 211-212. doi: [10.1017/S0030605318000108](https://doi.org/10.1017/S0030605318000108).

Parchizadeh J., and **Williams S.T.** (2018) Waterbirds targeted in Iran's wetlands. Science 359 (6378): 877–878. doi: [10.1126/science.aar8560](https://doi.org/10.1126/science.aar8560).

Williams S.T., Maree N., Taylor P., Belmain S.R., Keith M., Swanepoel L.H. (2018) Predation by small mammalian carnivores in rural agro-ecosystems: An undervalued ecosystem service? *Ecosystem Services* 30: 362-371. doi: [10.1016/j.ecoser.2017.12.006](https://doi.org/10.1016/j.ecoser.2017.12.006).

Parchizadeh, J. and **Williams, S.T.** (2017). Save Iran's cheetah from extinction. *Nature* 552 (7683): 31. doi: [10.1038/d41586-017-08183-8](https://doi.org/10.1038/d41586-017-08183-8).

Williams, S.T., Williams, K.S., Lewis, B.P., Hill, R.A. (2017) Population dynamics and threats to an apex predator outside protected areas: implications for carnivore management. *Royal Society Open Science* 4 (4): 1-10. doi: [10.1098/rsos.161090](https://doi.org/10.1098/rsos.161090).

Pitman, R.T., Fattebert, J., **Williams, S.T.**, Williams, K.S., Hill, R.A., Hunter, L.T.B., Robinson, H., Power, J., Swanepoel, L., Slotow, R., Balme, G.A. (2017) Cats, connectivity and conservation: incorporating datasets and integrating scales for wildlife management. *Journal of Applied Ecology* 54: 1687–1698. doi: [10.1111/1365-2664.12851](https://doi.org/10.1111/1365-2664.12851).

Pitman, R., Fattebert, J., **Williams, S.T.**, Williams, K.S., Hill, R., Hunter, L., Slotow, R., Balme, G. (2017) The conservation costs of game ranching. *Conservation Letters* 10 (4): 403–413. doi: [10.1111/conl.12276](https://doi.org/10.1111/conl.12276).

Swanepoel, L.H., Balme, G., **Williams, S.**, Power, R.J., Snyman, A., Gaigher, I., Senekal, C., Martins, Q., Child, M. (2017) A conservation assessment of *Panthera pardus*. In: M.F. Child, L.R., D. Raimondo, E. Do Linh San, J. Selier and H. Davies-Mostert (eds), *The Red List of Mammals of South Africa, Swaziland and Lesotho*. South African National Biodiversity Institute and Endangered Wildlife Trust Johannesburg. doi: [10.5281/zenodo.573259](https://doi.org/10.5281/zenodo.573259).

Ehlers-Smith, Y., **Williams, S.**, Relton, C., Child, M.F. (2017) A conservation assessment of *Cephalophus natalensis*. In: M.F. Child, L.R., D. Raimondo, E. Do Linh San, J. Selier and H. Davies-Mostert (eds), *The Red List of Mammals of South Africa, Swaziland and Lesotho*. South African National Biodiversity Institute and Endangered Wildlife Trust Johannesburg. doi: [10.5281/zenodo.809075](https://doi.org/10.5281/zenodo.809075).

Williams, S.T., Williams, K.S., Joubert, C.J., Hill, R.A. (2016) The impact of land reform on the status of large carnivores in Zimbabwe. *PeerJ* 4: e1537. doi: [10.7717/peerj.1537](https://doi.org/10.7717/peerj.1537).