PROFILE

James Harvey

Herpetologist, Ecological Researcher and Consultant

CONTACT DETAILS

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QUALIFICATIONS

B.Sc. Zoology and Hydrology (2001), B.Sc. (Hons.) Hydrology (2002), MEnvDev Environmental Management (2007) University of KwaZulu-Natal, Pietermaritzburg.

SKILLS AND EXPERIENCE

I work privately as a herpetologist (specialist in reptiles and amphibians) and ecological researcher and consultant, and have fourteen years of practical and theoretical experience with biodiversity in the Afrotropical region, and ten years experience in ecological consulting. I have performed ecological fieldwork widely across Africa, including South Africa, Lesotho, Botswana, Zimbabwe, Malawi, Mozambique, Kenya, Mali and Democratic Republic of Congo, as well as Madagascar, Italy and Vietnam.

I have a good knowledge of issues relating to the taxonomy, distribution patterns, ecology and conservation of African vertebrate fauna (mammals, birds, reptiles and amphibians). In addition, I have practical and theoretical experience with Integrated Environmental Management, and am therefore able to perform specialist ecological assessments and detailed faunal surveys, and provide recommendations concerning priority areas and management recommendations.

Environmental consultancy partnerships

In many cases, I work as a specialist subcontracted by environmental consultancies conducting broader environmental studies. Consultancies I have worked with in the past include:

Groundtruth Mokgope Consulting
SRK Consulting WorleyParsons
WSP Environmental Anchor Environmental

Kerry Seppings Environmental Management Specialists

Jeffares & Green Engineering & Environmental Consulting

Arcus Gibb

Environmental Resources Management

Knight-Piésold

Ecopulse Environmental Consulting Services Wildlands Conservation Trust Nsingwe Consultancy (Environmental and Safety Planners) Strategic Environmental Focus

<u>Clients</u>

Selected clients that I have worked for, either directly or through other consultancies, include:

Mondi Limited Dube TradePort

Hans Merensky Timbers

Anglo Ashanti

Transnet

Phelps Dodge

Botswana Department of Wildlife and National Parks

Eskom

ACSA

NPC-Cimpor

Base Titanium

World Bank

Letseng Diamond Mine Umzimkhulu Industrial Holdings

Umzumbe Municipality eThekwini Municipality

Msunduze Municipality Zimbabwe Platinum Mines Unlimited

Projects

Selected relevant previous and current projects include:

Commercial projects

- Biodiversity coordinator for the World Bank Botswana/South Africa Coal-based project Regional and Environmental Assessment (2014-15)
- Reptile assessment, forming part of the baseline biodiversity assessment for the proposed Durban dugout port, KwaZulu-Natal (2012-2014)
- Herpetofaunal assessment, forming part of the Lesotho Highlands Water Project: Phase 1 biological monitoring, Mohale and Katse Dams, Lesotho (2013-2014).
- KwaZulu Dwarf Chameleon Bradypodion melanocephalum assessment for the proposed Rohill Development, Durban North, KwaZulu-Natal (2014)
- Herpetofaunal input to eThekwini Municipality conservation planning programme (2014)
- Baseline faunal survey programme (mammals, birds, reptiles, amphibians) for Mondi Ltd of 46 non-commercial sites of conservation importance in the Greytown-Richmond, Richards Bay-Nyalazi, Tygerskloof, Pivaanspoort and Melmoth-Babanango regions, KwaZulu-Natal, and Piet Retief region, Mpumalanga, South Africa (2006 - ongoing)
- Terrestrial faunal biodiversity assessment (mammals, birds, reptiles and amphibians) contributing to the EIA for proposed Lumwana copper mine expansion, North-western Zambia (2012)
- Terrestrial faunal biodiversity assessment for the proposed placement of a dam in the Weza River catchment, KwaZulu-Natal, South Africa (2013)
- Terrestrial faunal biodiversity assessment for the proposed placement of a dam in the Tina River catchment, Eastern Cape (2013)
- Terrestrial faunal biodiversity assessment for the proposed Helios-Juno-Aries-Kronos 765kV
 Eskom transmissions powerline and substations upgrade, Northern and Western Cape (2013)
- Survey of the herpetofauna and invertebrates of the Treasure Beach Nature Reserve, Bluff, Durban, KwaZulu-Natal (2013)
- Herpetological assessment for Letseng Diamond Mine: Kholo Project, eastern Lesotho (2012)
- Terrestrial faunal biodiversity assessment (mammals, birds, reptiles and amphibians) contributing to the EIA for proposed uranium mine, Falea, southern Mali (2012)
- Terrestrial faunal biodiversity assessment for the proposed Ferrum-Hotazel-Mookodi 400kV Eskom transmission powerline and substations upgrade, Northern Cape and North-west Provinces (2012)
- Terrestrial faunal biodiversity assessment for the proposed Ariadne-Eros 400kV/132kV Eskom multi-circuit transmission line and substations upgrade, southern KwaZulu-Natal (2012)
- Herpetofaunal and mammal assessment contributing to the EIA for the Kwale Mineral Sands Project, Ukunda, southern Kenya (2011-2012)
- Herpetofaunal and invertebrate assessment for the proposed Northern Aqueduct (2012), Durban, KwaZulu-Natal, South Africa (2012)

- Terrestrial faunal biodiversity assessment for the proposed Candover-Mbazwana, Mbazwana-Gezisa 132kV Eskom transmission powerline and substations upgrade, KwaZulu-Natal (2011)
- Terrestrial faunal biodiversity assessment (mammals, birds, reptiles and amphibians) in the Mongbwalu region, Orientale Province, north-eastern Democratic Republic of Congo (2010-2011)
- Terrestrial faunal biodiversity assessment (mammals, birds, reptiles and amphibians) in the Kisanfu region, Katanga Province, southern Democratic Republic of Congo (2008-2012)
- Member of a project team undertaking a biodiversity review for the proposed expansion of the Tenke Fungurume copper project, Katanga, southern Democratic Republic of Congo (2010-2012)
- Baseline vertebrate fauna survey (mammals, birds, reptiles, amphibians) for Wildlands Conservation Trust, at the Buffelsdraai Landfill Site restoration project, Verulam, KwaZulu-Natal, South Africa (2010-2011)
- Specialist Avifauna Assessment for the Proposed Ushukela Highway Business and Office Park Development, Tongaat, KwaZulu-Natal (2011)
- Specialist herpetological assessment for the proposed Tonkolili iron ore mining project, Sierra Leone (2010)
- Specialist amphibian assessment of Adams Mission wetlands, forming part of the EIA for a proposed pipeline, south Ethekwini Municipal region, KwaZulu-Natal, South Africa (2010)
- Amphibian survey for Mondi Ltd on properties in the Mtunzini region, KwaZulu-Natal, South Africa (2010)
- Member of a project team performing a biodiversity assessment of Gamsberg, Northern Cape. Performed avifauna, mammal, reptile and amphibian components (2009, 2012)
- Specialist amphibian assessment of Cato Ridge wetlands, forming part of the EIA for the proposed Western Aqueduct, KwaZulu-Natal, South Africa (2009)
- Member of a project team performing a biodiversity assessment for Teal Mining, on Kalumines project, Lubumbashi, Katanga, southern Democratic Republic of Congo. Performed avifauna, ichthyfauna, mammal and macroinvertebrate surveys (2008)
- Member of a project team performing the aquatic biodiversity study for the EIA for the proposed upgrade of the Sani Pass road: Phase 2. Performed herpetofauna and ichthyfauna components, KwaZulu-Natal, South Africa (2008)
- Specialist herpetologist in multi-disciplinary ecological survey of protected areas of Botswana, focussing on Moremi Game Reserve, performed for the Botswana Department of Wildlife and National Parks. Also assisted with birds, mammals and epigaeic invertebrates (2007)
- Comprehensive amphibian surveys and followup monitoring for Hans Merenskey Timbers on their properties in the Umzimkulu, Donnybrook-Bulwer, Dargle and Weza regions, southern and central KwaZulu-Natal, South Africa (2004-2005, 2006-2007)
- Specialist amphibian study, forming part of the EIA for the proposed King Shaka International Airport and Dube Tradeport at La Mercy, KwaZulu-Natal, South Africa (2006-2007)
- Commissioned study on the Endangered Mistbelt Chirping Frog Anhydrophryne ngongoniensis on Sappi-owned sites, including provision of management guidelines, for Sappi Forest Products in Ixopo region, southern KwaZulu-Natal, South Africa, (2005-2006)

Non-commercial projects and activities

- IUCN-Southern African Regional Reptile Specialist Group member, contributing to ongoing reassessment of South African reptile IUCN-conservation statuses (2015-ongoing)
- Co-authored seven reptile family accounts and 24 genus accounts in 'Bates, M.F., Branch, W.R., Bauer, A.M., Burger, M., Marais, J., Alexander, G.J. & de Villiers, M. (eds.). 2014. Atlas and Red List of the Reptiles of South Africa, Lesotho and Swaziland. South African National Biodiversity Institute, Pretoria.' Also involved in the South African Reptile Conservation Assessment (SARCA), through: contribution of personal specimen records, team member of an intensive reptile field survey in the Lebombo mountains, north-eastern KwaZulu-Natal, editing of sections, contribution to and review of 54 species accounts (2009-2012)
- Expert member of the South African Amphibian Assessment Group: worked with other amphibian experts under the auspices of the South African National Biodiversity Institute (SANBI), to perform a re-assessment of the conservation statuses (as defined by the IUCN) of all South African Frogs (species profiles available on www.iucn.org) (2009-2010; 2014-ongoing).
- Contributor and assessor for revision of the IUCN-Red List of mammals of South Africa, Lesotho and Swaziland (2013-ongoing)
- Regional expert for Zimbabwe, Mozambique and Malawi, contributing to IUCN-sanctioned Eastern Afromontane Amphibian Conservation Assessment and Workshop, Trento, Italy (2012)
- Herpetologist member of an international team performing a biodiversity survey of Bidoúp-Nui Ba National Park, Lam Dong Province, southern Vietnam, under the auspices of the NGO Wildlife At Risk (WAR) (2015)
- Paper: Harvey, J, J. Heath, G. De Winnaar & W. Bohme. In prep. Herpetofaunal records from south-western Mali and rediscovery of the lacertid lizard *Latastia ornata* Monard, 1940.
 Salamandra xx: xx-xx
- Collaborator on a project assessing the taxonomy and phylogeography of the Bush Squeaker frog Arthroleptis wahlbergii and biogeography of eastern South African forests (2011-2014)
- Collaborator on a project to create a pan-African phylogeny of the amphibian family Hyperoliidae (2013-ongoing)
- Collaborator on a project to assess the biogeography of the *Ptychadena mascareniensis*-complex (2013-ongoing)
- Collaborator on a project to create a phylogeny of the genus Tetradactylus (2012-ongoing)
- Team leader of a survey to attempt to relocate the Cave Squeaker frog (*Arthroleptis troglodytes*), a species confined to the Chimanimani Mountains, eastern Zimbabwe, and not recorded since 1962. Survey formed part of the 'Lost Amphibians' programme, funded and coordinated by Conservation International (2010).
- Participated in workshop and follow-up work, contributing to Measey, G.J. (Ed) 2011. Ensuring a
 future for South Africa's frogs: a strategy for conservation research. SANBI Biodiversity Series 19.
 SANBI, Pretoria.

Co-authored the following chapters:

- Channing, A, G.J. Measey, L. Minter & J. Harvey. Understanding and documenting species diversity.
- Measey, G.J., C. Weldon, D. Morgan, A. Channing, J. Harvey & A. Turner. Conservation and ecological studies.
- Tolley, K., L. Minter, J. Harvey, J. Tarrant & G.J. Measey. Education, awareness and capacity-building.

- Contributed to and reviewed 'A Complete Guide to the Frogs of Southern Africa' by du Preez and Carruthers, (2009)
- Formed part of a research team, performing an intensive field survey of the reptiles and amphibians of the Mt Mulanje Massif, Malawi (2009)
 - Paper: Conradie, W., J.W. Harvey, A. Kotze, D.L. Dalton & M.C. Cunningham. 2011.
 Confirmed Amphibian Chytrid in Mount Mulanje Area, Malawi. Herpetological Review. (2011)
- Collaborator on projects assessing the taxonomy and phylogeography of Hinged Tortoises Kinixys and Hinged Terrapins Pelusios (2009-ongoing).
 - Paper: Kindler, C., W. Branch, M. Hofmeyr, J. Maran, P. Siroky, M. Vences, J. Harvey, S. Hauswaldt, A. Schleicher, H. Stukas & U. Fritz. 2012. Molecular phylogeny of African hinge-back tortoises (*Kinixys* Bell, 1827): implications for phylogeography and taxonomy (Testudines: Testudinidae). *Journal of Zoological Systematics and Evolutionary Research* 50(3): 192-201.
 - Paper: Fritz, U., W. R. Branch, P.-S. Gehring, J. Harvey, C. Kindler, L. Meyer, L. Du Preez, P. Široký, D. R. Vieites, M. Vences (2012): Weak divergence among African, Malagasy and Seychellois hinged terrapins (*Pelusios castanoides, P. subniger*) and evidence for human-mediated oversea dispersal. *Organisms, Diversity and Evolution* 13(2): 215-224.
 - Paper: Kindler, C., M. Moosig, W.R. Branch, J. Harvey, C. Kehlmaier, Z.T. Nagy, H. Prokop, P. Siroky & U. Fritz. 2015. Comparative phylogeographies of six species of hingedterrapins (*Pelusios* spp.) reveal discordant patterns andunexpected differentiation in the *P. castaneus/P. chapini* complex and *P. rhodesianus. Biological Journal of the Linnean Society.*
- Participated as a member of an amphibian expert panel in an ex situ project for the Critically Endangered Pickersgill's Reed Frog Hyperolius pickersgilli, and presented at the workshop: 'Pickersgill's Reed Frog: Status, conservation and ex-situ plans.' (2011)
- Participated as a member of amphibian expert panel in an AArk-facilitated Southern African Amphibian Species Conservation Prioritisation Workshop and an Amphibian Husbandry Workshop, held at Johannesburg Zoo, South Africa (2008)
- Team member of a project assessing the distribution of the infectious Chytridiomycosis disease in threatened amphibians in the Western Cape, Northern Cape and KwaZulu-Natal (2008)
- Formed part of an international research team, performing taxonomic, behavioral and emerging disease surveys on frogs, in the Adasibe-Mantadia region of Madagascar (2008).
 - Paper: Wollenberg, K. & J. Harvey. 2010. First assessment of the male territorial vocal behavior of a Malagasy leaf litter frog (*Gephyromantis thelenae*). *Herpetological Notes* 3: 141-150.
- Masters thesis: 'Distribution and Global Population Size Estimation of the Critically Endangered Mistbelt Chirping Frog Anhydrophryne ngongoniensis, and the Development of Guidelines for the Management of its Habitat' (2007)
- Member of the Herpetological Association of Africa since 2007.

MEMBERSHIPS

James is a member of the following associations:

- Herpetological Association of Africa (HAA)
- Zoological Society of South Africa (ZSSA)

- African Bird Club (ABC)
- International Association for Impact Assessment (IAIA)

REFERENCES

The following individuals have interacted with me in the past on projects relating to African faunal biodiversity and can be contacted for references relating to my professional competence.

<u>Prof. Louis du Preez</u>: Professor in Zoology, African Amphibian Conservation Working Group Team Leader, University of the North-West, Potchefstroom, North-west Province. Tel: +27 (0)82 455 5275 E-mail: louis.dupreez@nwu.ac.za

<u>Johan Marais</u>: South African Reptile Conservation Assessment Project Chairman, Avian Demography Unit, University of Cape Town, Western Cape. Tel: +27 (0)82 494 2039, E-mail: <u>johan@reptileventures.com</u>

<u>Dr Adrian J. Armstrong</u>: Biodiversity Division, EKZN Wildlife, P.O. Box 13053, 3202 Cascades, Pietermaritzburg, KwaZulu-Natal. Tel: 033 845 1433, E-mail: aarmstrong@kznwildlife.com

<u>Jacqui Shuttleworth</u>: Environmental Specialist, Mondi Limited, Boscombe Estate, Hermannsberg, Greytown, KwaZulu-Natal. Tel: 033 445 0804, E-mail: jacqui.shuttleworth@mondigroup.co.za