African Journal of Herpetology,
Vol. 62, No. 1, April 2013, 1–4

UNISA university of south africa PRESS
Taylor & Francis
Taylor & Francis Group

A celebration of the works of John Charles Poynton

Simon P. Loader[1]*, Michele Menegon[2],
Kim M. Howell[3] & Hendrik Müller[4]

[1]*Department of Environmental Science (Biogeography), University of Basel, Basel, Switzerland;* [2]*Tropical Biodiversity Section, Museo Tridentino di Scienze Naturali, Trento, Italy;* [3]*Department of Zoology and Marine Biology, University of Dar es Salaam, Dar es Salaam, Tanzania;* [4]*Institut für Spezielle Zoologie und Evolutionsbiologie mit Phyletischem Museum, Friedrich Schiller Universität Jena, Jena, Germany*

The 15th meeting of the African Amphibian Working Group celebrated the contributions of John Charles Poynton to African Herpetology. The meeting, in Trento, Italy, was timed to commemorate John's 81st birthday (in May 2012), and he presented a keynote speech that focused on a topic that has long fascinated him – the Afrotemperate amphibian fauna. His presentation is published here, in a modified form, for this special issue of *African Journal of Herpetology* (Poynton 2013). Other papers on the main themes of John's research are also included in this issue, which include biogeography (Loader et al. 2013; Schreiner et al. 2013), taxonomy (Cruz et al. 2013) and morphology (Wilkinson et al. 2013).

Recognition of John Poynton as one of the leading contemporary African herpetologists has been documented in a previous article (Douglas 1991) which gave an account of John's professional life up to his retirement in the early 1990s. Since that time, John has continued to make landmark contributions to African Herpetology, with his publication record currently totalling 105 (see a complete list of John Poynton's publications in the Online Supplementary Material). The early 1990s marked a pivotal point in his career. John retired from the University of Natal in 1992 and with his wife Wyliss relocated to the UK. In the same year he was awarded the South African Order for Meritorious Service. It was upon arriving in London, and as an honorary researcher at the Natural History Museum in London, that John embarked on his taxonomic and biogeographic review of the lowland and highland fauna of East Africa (Poynton 1993), moving his geographic focus northwards from his earlier works on southern African anurans (e.g. Poynton 1964a, 1964b; Poynton & Broadley 1985a, 1985b, 1987, 1988, 1991).

From the 1990s onwards John started publishing, though not exclusively, on lowland and highland faunas, with a focus on biogeography (Poynton 1990, 2000b, 2003a; Poynton & Boycott 1996) and taxonomic revisions (Poynton 1991, 1997, 2000a, 2003b; Poynton et al. 1998). Seeing the importance of spatial data for interpreting biogeographic patterns in the East African amphibian fauna, John applied new and historical collection data to look at turnover patterns of amphibians

*Corresponding author. Email: Simon.Loader@unibas.ch
Online Supplementary Material is available for this article which can be accessed via the online version of this journal available at www.tandf.co.uk/journals/THER.

ISSN 2156-4574 print/ISSN 2153-3660 online
© 2013 Herpetological Association of Africa
http://dx.doi.org/10.1080/21564574.2013.793215
http://www.tandfonline.com

across latitude and altitude. Along with his work in South Africa, these studies formed the basis for John's views on a climatic rather than cartographic terminology, applied to the classification of assemblages. Although this might strike some as a purely semantic issue, it underlies John's clear understanding of what determines the distribution of an organism. To John, the occurrence of a species is the product of complex interactions of abiotic and biotic aspects of a habitat – terms such as 'montane' are an over-simplified proxy for a highly variable climatic feature.

John's ideas were clearly outlined in his book chapter 'Distribution of amphibians in sub-Saharan Africa, Madagascar and Seychelles' (Poynton 1999), representing what we consider to be a major contribution to African biogeography in a global context. In this contribution, John summarises the 14 main biogeographic regions of Africa – providing not only a characterisation of the habitat types, but also a historical perspective of African biogeographical research. New generations of phylogeographers and macroecologists will glean much from reading the predictions and analyses formulated by John in this chapter. The chapter has a dual function: to outline what was already understood but more importantly what was lacking; and the inadequate state of sampling and taxonomic analysis in Africa at the dawn of the new millennium.

The detailed taxonomic work that John carried out to identify new species was painstaking in its approach and accuracy. As every recent visitor to the herpetological collections at the Natural History Museum London can testify, passing through the herpetology section you would often see John peering down a microscope with pair of callipers in hand – identifying and measuring another *Arthroleptis*! John's encyclopaedic knowledge of variation in southern and East African amphibians means he has a comprehensive understanding of the characters that define each family, genus and species (as first outlined in his monumental work of 1964a). His taxonomic keys have provided the source to the subsequent blossoming of many African amphibian field guides (e.g. Channing 2001; Channing & Howell 2006).

A less well-known part of John's professional career since the 1990s is the sheer volume of species identifications for biodiversity surveys and inventories. Non-government organisations, such as Frontier-Tanzania, regularly sent consignments of amphibians for John to identify, totalling well over 3 000 specimens. It is with this material that John described important endemic species from coastal East Africa (e.g. *Mertensophyrne howelli* and *M. usambarae* [Poynton & Clarke 1999], the latter figured on the cover of this issue) and the highlands (e.g. *Arthroleptis nikeae, A. nguruensis* [Poynton 2003b; Poynton et al. 2008]). Among the many interesting new species John described, one clearly stands out. The peculiar habitat of the Kihansi spray toad (*Nectophrynoides asperginis*; Poynton et al. 1998) alone would have made this little toad remarkable: it is found only within a small part of a narrow gorge right below the Kihansi Falls in the Udzungwa Mountains, Tanzania, where the spray generated by the falls created a unique ecosystem. Sadly, the habitat of this toad was all but destroyed as a result of the Kihansi hydroelectric dam project that resulted in a precipitous drop in spray generated by the falls and in a general drying of the gorge. A sprinkler system was subsequently installed, but this proved to be too little, too late (IUCN 2012). By 2004, the Kihansi spray toad was extinct in the wild (Channing et al. 2006). Fortunately, live specimens had been taken from the gorge to establish a captive breeding programme run by the Bronx and Toledo Zoos in the United States (Church 2011). This programme has successfully bred and reared

new generations of Kihansi spray toads and, after extensive works carried out to partly restore its habitat, the first specimens were reintroduced into its native habitat in October 2012. The Kihansi spray toad has thus become both a sad reminder of the all too prominent habitat destruction across Africa and the loss of unique biodiversity that comes with it, and a story of hope that has made it a flagship species for conservation efforts worldwide. In this respect, John's work has been important and instrumental in highlighting the most severe threat to African amphibians – human-induced habitat change.

John Poynton's recent work has contributed substantially to a greater understanding of the Eastern Afromontane biodiversity hotspot and surrounding lowlands through his taxonomic and biogeographic analyses. Suffice it to say that our current understanding of this area would be substantially less complete without John's contributions (e.g. Poynton 1962, 1999, 2000a). Importantly, John has also indirectly contributed to our understanding by generously training, facilitating and inspiring other herpetologists in this area. John's work on African amphibians continues to generate interesting research questions for the younger generation of herpetologists to test (e.g. Müller et al. 2013). This issue is a small mark of respect and gratitude to him.

Acknowledgements

The authors would like to thank David Gower, John Measey, Don Broadley, Alan Channing and Kraig Adler for their advice and Gill Sparrow for helping to compile John's publication list.

References

Channing, A. 2001. Amphibians of Central and Southern Africa. Cornell University Press, New York.

Channing, A., K.S. Finlow-Bates, S.E. Haarklau & P. G. Hawkes. 2006. The biology and recent history of the critically endangered Kihansi spray toad *Nectophrynoides asperginis* in Tanzania. J. East African Nat. Hist. 95: 117–138.

Channing, A. & K.M. Howell. 2006. Amphibians of East Africa. Cornell University Press, Ithaca.

Church, D. 2011. Kihansi spray toad re-introduction guidelines. FrogLog. 97: 15.

Cruz, D., A.L. Dawson & D.C. Blackburn. 2013. Description of the tadpoles of two Cameroonian frogs, *Leptodactylodon axillaris* and *L. perreti* (Anura: Arthroleptidae). Afr. J. Herpetol. 62(1): 28–39.

Douglas, R. 1991. Exceptional contributions to African herpetology: John C. Poynton. Afr. Herp News 16: 10–11.

IUCN, Conservation International & Natureserve. 2012. Global amphibian assessment. Available at http://www.iucnredlist.org/amphibians (accessed 1 September 2012).

Loader, S.P., F.S. Ceccarelli, M. Wilkinson, M. Menegon, J. Mariaux, R.O. de Sá, K.M. Howell & D.J. Gower. 2013. Species boundaries and biogeography of East African torrent frogs of the genus *Petropedetes* (Amphibia: Anura: Petropeditidae). Afr. J. Herpetol. 62(1): 40–48.

Müller, H., H.C. Liedtke, M. Menegon, J. Beck, L. Balesteros-Meija, P. Nagel & S.P. Loader. 2013. Do forests promote terrestrialisation of life history strategies in African amphibians? Biol. Lett. 9: 20121146.

Poynton, J.C. 1962. Zoogeography of eastern Africa: an outline based on anuran distribution. Nature. 194: 1217–1219.

Poynton, J.C. 1964a. The amphibia of southern Africa: a faunal study. Ann. Natal Mus. 17: 1–334.

Poynton, J.C. 1964b. Amphibia of the Nyasa-Luangwa region of Africa. Senck. Biol. 45: 193–225.

POYNTON, J.C. 1990. Composition and subtraction patterns of the East African lowland amphibian fauna. Pp. 285–296. In G. PETERS & R. HUTTERER (Eds.) Vertebrates in the Tropics. Museum Alexander Koenig, Bonn.

POYNTON, J.C. 1991. Amphibians of southeastern Tanzania, with special reference to *Stephopaedes* and *Mertensophryne* (Bufonidae). Bull. Mus. Comp. Zool. 50: 152: 451–473.

POYNTON, J.C. 1993. A trek through the British Museum. Afr. Herp News 19: 16–18.

POYNTON, J.C. 1997. On *Bufo nyikae* Loveridge and the *B. lonnbergi* complex of East African highlands (Anura: Bufonidae). Afr. J. Herpetol. 46: 98–102.

POYNTON, J.C. 1999. Distribution of amphibians in sub-Saharan Africa, Madagascar and Seychelles. Pp. 483–539. In W.E. DUELLMAN (Ed.) Patterns of Distribution of Amphibians: A Global Perspective. Johns Hopkins University Press, Baltimore & London.

POYNTON, J.C. 2000a. Evidence for an Afrotemperate amphibian fauna. Afr. J. Herpetol. 49: 33–41.

POYNTON, J.C. 2000b. Foam-nest treefrogs in eastern Africa (Anura Rhacophoridae *Chiromantis*): taxonomic complexities. Afr. J. Herpetol. 49: 111–128.

POYNTON, J.C. 2003a. Altitudinal species turnover in southern Tanzania: some zoogeographical considerations. Sys. Biodivers. 1: 117–126.

POYNTON, J.C. 2003b. A new giant species of *Arthroleptis* (Amphibia: Anura) from the Rubeho Mountains, Tanzania. Afr. J. Herpetol. 52: 107–112.

POYNTON, J.C. 2013. Afrotemperate amphibians in Southern and Eastern Africa: a critical review. Afr. J. Herpetol. 62(1): 5–20.

POYNTON, J.C. & R.C. BOYCOTT. 1996. Species turnover between Afromontane and eastern African lowland faunas: patterns shown by amphibians. J. Biogeogr. 23: 669–680.

POYNTON, J.C. & D.G. BROADLEY. 1985a. Amphibia Zambesiaca 1. Scolecomorphidae, Pipidae, Microhylidae, Hemisidae, Arthroleptidae. Ann. Natal Mus. 26: 503–553.

POYNTON, J.C. & D.G. BROADLEY. 1985b. Amphibia Zambesiaca 2. Ranidae. Ann. Natal Mus. 27: 15–181.

POYNTON, J.C. & D.G. BROADLEY. 1987. Amphibia Zambesiaca 3. Rhacophoridae and Hyperoliidae. Ann. Natal Mus. 28: 161–229.

POYNTON, J.C. & D.G. BROADLEY. 1988. Amphibia Zambesiaca 4. Bufonidae. Ann. Natal Mus. 29: 447–490.

POYNTON, J.C. & D.G. BROADLEY. 1991. Amphibia Zambesiaca 5. Zoogeography. Ann. Natal Mus. 32: 221–277.

POYNTON, J.C. & B.T. CLARKE. 1999. Two new species of *Stephopaedes* (Anura: Bufonidae) from Tanzania, with a review of the genus. Afr. J. Herpetol. 48: 1–14.

POYNTON, J.C., K.M. HOWELL, B.T. CLARKE & J.C. LOVETT. 1998. A critically endangered new species of *Nectophrynoides* (Anura: Bufonidae) from the Kihansi Gorge, Udzungwa Mountains, Tanzania. Afr. J. Herpetol. 47: 59–67.

POYNTON, J.C., M. MENEGON & S.P. LOADER. 2008. A new giant species of *Arthroleptis* (Amphibia: Anura) from the forests of the Nguru Mountains, Tanzania. Afr. J. Herpetol. 57: 63–74.

SCHREINER, C., D. RÖDDER & G.J. MEASEY. 2013. Using modern models to test Poynton's predictions. Afr. J. Herpetol. 62(1): 49–62.

WILKINSON, M., D.J. GOWER, S.P. LOADER & H. MÜLLER. 2013. A visceral synapomorphy of *Scolecomorphus* Boulenger, 1883 (Amphibia: Gymnophiona: Scolecomorphidae). Afr. J. Herpetol. 62(1): 21–27.

Received: 28 March 2013; Final acceptance: 3 April 2013

A celebration of the works of John Charles Poynton

SIMON P. LOADER[1]*, MICHELE MENEGON[2], KIM M. HOWELL[3] & HENDRIK MÜLLER[4]

[1]*Department of Environmental Science (Biogeography), University of Basel, Basel, Switzerland;* [2]*Tropical Biodiversity Section, Museo Tridentino di Scienze Naturali, Trento, Italy;* [3]*Department of Zoology and Marine Biology, University of Dar es Salaam, Dar es Salaam, Tanzania;* [4]*Institut für Spezielle Zoologie und Evolutionsbiologie mit Phyletischem Museum, Friedrich Schiller Universität Jena, Jena, Germany*

ONLINE SUPPLEMENTARY MATERIAL.

JOHN CHARLES POYNTON LISTS OF PUBLICATIONS IN BIOLOGY

A list is presented of the scientific publications of John C. Poynton.

The compilation of the material would not have been possible without the

invaluable help of Gillian Sparrow at the Natural History Museum, London. David Gower and Mark Wilkinson are thanked for assisting Gill in getting the files enclosed in this folder. Furthermore, we would like to thank the following people who assisted: Louis du Preez, Donald Broadley, John Measey, Christoph Liedtke, Ruth Kirmser and Alan Channing.

1957a. Bullfrog guardians. *Afr. Wild Life* 11: 80–81.

1959a. Zoogeography – a study in science history. *Nucleon* 1: 24–30.

1960a. Instinctive behaviour. *Nucleon* 2: 13–18.

1960b. Preliminary note on the zoogeography of the Amphibia in southern Africa. *South African Journal of Science.* 56: 307–12.

1961a. Biogeography of south-east Africa. *Nature* 189: 801–803.

1961b. Contribution to the zoogeography of southern Africa. *South African Journal of Science* 57: 75–80.

1962a. Zoogeography of eastern Africa: an outline based on Anuran distribution. *Nature* 194: 1217–1219.

1962b. Further comments on the zoogeography of southern Africa. *South African Journal of Science* 58: 204–205.

1962c. Geographical and ecological determinants of distribution patterns.

Annals of the Cape Provincial Museums 2: 32–36.

1962d. Patterns in the distribution of the southern African Amphibia. *Annals of the Cape Provincial Museums* 2: 252–272.

1962e. Introduction. Pp. xi–xii. In W. Rose (Ed.) *The reptiles and amphibians of southern Africa.* Cape Town: Maskew Miller.

1963a. A neurological study of the clasp reflex in *Xenopus laevis* (Daudin). (With J. Hutchinson). *Behaviour* 22: 41–63.

1963b. New horizons in the study of amphibians. *Journal of the Herpetological Association of Rhodesia* 21: 4–5.

1963c. Descriptions of southern African amphibians. *Annals of the Natal Museum* 15: 319–332.

1963d. Comment on the proposed use of the Plenary Powers to designate a neotype for *Rana fasciata* Burchell, 1824. (With H.M. Smith). *Bulletin of Zoological Nomenclature* 20: 254–255.

1964a. Relations between habitat and terrestrial breeding in amphibians. *Evolution* 18: 131.

1964b. The Amphibia of southern Africa: a faunal study. *Annals of the Natal Museum* 17: 1–334.

1964c. Amphibia of the Nyasa-Luangwa region of Africa. *Senckenb. Biol.*

45: 193–225.

1964d. The biotic divisions of southern Africa, as shown by the Amphibia. Pp. 206–218. In D.H.S. Davis (Ed.) *Ecological Studies in Southern Africa*. The Hague: W. Junk.

1965. Animal distribution in southern Africa. *Nucleon* 7: 3–5.

1966a. A new subspecies of *Rana* from Rhodesia. *Arnoldia* 2(19): 1–3.

1966b. Amphibia of northern Mozambique. *Mems. Inst. Invest. cient. Mocam.* 8 Ser. A: 13–34.

1966c. Breeding calls of *Xenopus laevis* and *X. meulleri.* (With H. Frances). *Newsletter of Limnological Society of South Africa* 7: 53.

1967a. Zoogeographical problems in northern Natal. *Palaeoecology of Africa* 2: 85–87.

1967b. A new species of *Probreviceps* (Amphibia) from Rhodesia. (With D.G. Broadley). *Arnoldia* 3(14): 1–3.

1967c. Santa Rosalia in Africa or why are there so many African birds? *South African Journal of Science* 63: 471–497.

1969a. Optimum temperatures and amphibian distribution in south-east Africa. *Palaeoecology of Africa.* 4: 161–162.

1970a. Guide to the *Ptychadena* (Amphibia: Ranidae) of the southern third

of Africa. *Annals of the Natal Museum* 20: 365–375.

1970b. Environment and amphibian distribution in Zululand. (With A.J. Bass). *Journal of African Zoology* 5: 41–48.

1972a. Note on a confusion between ecology and zoogeography. *Journal of African Zoology* 7: 471–472.

1976a. Notes on the biology of *Breviceps* (Anura: Microhylidae). (With S. Pritchard). *Journal of African Zoology* 11: 313–318.

1976b. Classification and the Arthroleptinae (Amphibia). *Revue de zoologie africaine* 90: 215–220.

1977a. A new *Bufo* and associated Amphibia from southern Tanzania. *Annals of the Natal Museum* 23: 37–41.

1978a. The herpetofauna. (With D.G. Broadley). Pp. 925–948. In M.J.A. Werger (Ed.) *Biogeography and Ecology of Southern Africa*. The Hague: W. Junk.

1978b. Meaning and gender of the name *Hemisus* Gunther. *Journal of Herpetological Association of Africa* 19: 8–9.

1980a. The Amphibia of Maputaland. Pp. 245–250. In M.N. Bruton & K.H. Cooper (Eds.) *Studies on the Ecology of Maputaland*. Grahamstown: Rhodes University & Durban: Wildlife Society.

1982a. On species pairs among southern African amphibians. *South African Journal of Zoology* 17: 67–74.

1983a. Values, purpose and strategy in park services: some biological considerations. *Park Admin.* 36: 33–38.

1983b. The dispersal versus vicariance debate in biogeography. *Bothalia* 14: 455–460.

1985a. Ontological framework and intelligibility in science. *South African Journal of Philosophy* 4(4): 131–136.

1985b. Discord in systematics. *South African Journal of Science* 81: 6–8.

1985c. Earth sciences and biogeography: a nuptual flight? *South African Journal of Science* 81: 288–301.

1985d. On the *Hyperolius marmoratus* complex (Anura). *S. Afr. J. Sci.* 81: 179–181.

1985e. Nomenclatural revision of southeast African treefrogs of the genus *Leptopelis* (Amphibia: Hyperoliidae). *South African Journal of Science* 81: 466–468.

1985f. *Durban's amphibians are interesting and varied.* Durban: Parks, Recreation and Beaches Department of the Durban Municipality.

1985g. Amphibia Zambesiaca 1. Scolecomorphidae, Pipidae,

Microhylidae, Hemisidae, Arthroleptidae. (With D.G. Broadley). *Ann. Natal Mus.* 26: 503–553.

1985h. Amphibia Zambesiaca 2. Ranidae. (With D.G. Broadley). *Ann. Natal. Mus.* 27: 115–181.

1985i. Urban open space planning in South Africa: a biogeographical perspective. (With D.C. Roberts). *South African Journal of Science* 81: 33–37.

1985j. Central and peripheral urban open spaces: need for biological evaluation. (With D.C. Roberts). *South African Journal of Science* 81: 464-466.

50.

1986a. *Hyperolius argus* (Anura) in Natal: taxonomy, biogeography and conservation. *South African Journal of Zoology* 21: 149–152.

1986b. Historical biogeography: theme and South African variations. *Palaeoecology of Africa* 17: 139–153.

1987a. Evolution of the modern environment: Introduction. Pp. 47–48. In H.J. Deacon (Ed.) *Cainozoic of the southern Cape*. Stellenbosch:

Southern African Society for Quaternary Research.

1987b. Amphibia Zambesiaca 3. Rhacophoridae and Hyperoliidae. (With D.G. Broadley). *Ann. Natal Mus.* 28: 161–229.

1987c. Smuts's holism and evolution sixty years on. *Trans. Roy. Soc. S. Afr.* 46: 181–189.

1988a. Amphibia Zambesiaca 4. Bufonidae. (With D.G. Broadley). *Annals of the Natal Museum* 29: 447–490.

1988b. Amphibian distribution: facts in search of Quaternary theory. *Palaeoecology.of Africa* 19: 327–333.

1988c. A provisional and annotated checklist of the herpetofauna of southern Africa. (With W.R. Branch, E. Baard, W.D. Haacke & D.G. Broadley). *Journal of Herpetological Association of Africa* 34: 1–19.

1989c. Evolutionary activity in the southern part of Africa: evidence from the Amphibia. *Journal of Herpetological Association of Africa* 36: 2–6.

1989d. Biogeography of forest Amphibia. Pp. 41–47. In C.J. Geldenhuys (Ed.) *Biogeography of the mixed evergreen forests of southern Africa*. Pretoria: Foundation for Research Development (CSIR).

1990a. Composition and subtraction patterns of the East African lowland amphibian fauna. Pp. 285–296. In G. Peters & R. Hutterer (Eds.) *Vertebrates in the tropics*. Bonn: Museum Alexander Koenig.

1991a. Amphibians of southeastern Tanzania, with special reference to *Stephopaedes* and *Mertensophryne* (Bufonidae). *Bulletin of the Museum Comparative Zoology, at Harvard College in Cambridge* 152: 451–473.

1991b. Amphibia Zambesiaca 5. Zoogeography. (With D.G. Broadley). *Annals of the Natal Museum* 32: 221–277.

1991c. Conservation and the city. *Natal* 18: 7.

1992a. "On such a full sea are we now afloat." *Green Philosophy* 1: 1–11.

1992b. Amphibian diversity and species turnover in southern Africa: investigation by means of a Bloemfontein-Durban transect. *Journal of Herpetological Association of Africa* 40: 2–8.

1993a. On a collection of amphibians from Angola, including a new species of *Bufo* Laurenti. (With W. Haacke). *Annals of the Transval. Museum* 36: 9–16.

1993b. A trek through the British Museum. *African Herp. News* 19: 16–18.

1994a. Investigating biogeographical patterns: small steps between the

obvious and the obscure. *Journal of Herpetological Association of Africa* 43: 1–4.

1995a. The "arid corridor" distribution in Africa: a search for instances among amphibians. *Madoqua* 19: 45–48.

1995b. Cladistics at the edge of its meadow? *African Herp. News* 22: 23–26.

1995c. Foreword to the second edition. In N. Passmore & V. Carruthers (Eds.) *South African Frogs: A Complete Guide* (rev. ed.). Johannesburg: University of the Witwatersrand Press.

1995d. Comments on the proposed conservation of the family-group name PHRYNOBATRACHINAE Laurent, 1941 (Amphibia, Anura). *Bulletin of Zoological Nomenclature* 52: 269–270.

1996c. Diversity and conservation of African bufonids (Anura): some preliminary findings. *African Journal of Herpetology* 45: 1–7.

1996d. Species turnover between Afromontane and eastern African lowland faunas: patterns shown by amphibians. (With R.C. Boycott). *Journal of Biogeography* 23: 669–680.

1997a. Outspan in Tanzania. *African Herp. News* 26: 11–13.

1997b. On *Bufo nyikae* Loveridge and the *B. lonnbergi* complex of East

African highlands (Anura: Bufonidae). *African Journal of Herpetology* 46: 98–102.

1998a. Tanzanian bufonid diversity: preliminary findings. *Herpetological Journal* 8: 3–6.

1998b. On *Bufo pantherinus* A. Smith, 1828 (Anura: Bufonidae), the Leopard Toad of the southwestern Cape, South Africa, with the designation of a neotype. (With A.J.L. Lambiris). *African. Journal of Herpetology* 47: 1–12.

1998c. Gladwyn Kingsley Noble and the study of African amphibians. Pp. i–xvii. In *Karl P. Schmidt and G.K. Noble Contributions to the Herpetology of the Belgian Congo.* Part 3. Ithaca: Society for the Study of Amphibians and Reptiles.

1998d. Parkland planning and management – a biogeographer's view with particular reference to Regent's Park. *St. Marylebone Society Newsletter* 294: 10.

1998e(1999). A critically endangered new species of *Nectophrynoides* (Anura: Bufonidae) from the Kihansi Gorge, Udzungwa Mountains, Tanzania. (With K.M. Howell, B.T. Clarke & J.C. Lovett). *African. Journal of Herpetology* 47: 59–67.

1998f(1999). Amphibians of Mkomazi. (With M. Cherry & M. Stander). Pp. 405–410. In M. Coe, N. McWilliam, G. Stone & M. Packer (Eds.) *Mkomazi: the ecology, biodiversity and conservation of a Tanzanian savanna*. London: Royal Geographical Society.

1999a. Distribution of amphibians in sub-Saharan Africa, Madagascar and Seychelles. Pp. 483–539. In W.E.Duellman (Ed.) *Patterns of Distribution of Amphibians: A Global Perspective*. Baltimore & London: Johns Hopkins University Press.

1999b. Two new species of *Stephopaedes* (Anura: Bufonidae) from Tanzania, with a review of the genus. (With B.T. Clarke). *African Journal of Herpetology* 48: 1–14.

2000a. Amphibians. Pp. 201–210. In N.D. Burgess & G.P. Clarke (Eds.) *Coastal forests of eastern Africa*. Gland & Cambridge: IUCN.

2000b. Evidence for an Afrotemperate amphibian fauna. *Afr. J. Herpetol.* 49: 33–41.

2000c. Foam-nest treefrogs in eastern Africa (Anura Rhacophoridae *Chiromantis*): taxonomic complexities. *Afr. J. Herpetol.* 49: 111–128.

2002a. 'Bad science' and the damage done. *Swara* 25: 7.

2003a. Altitudinal species turnover in southern Tanzania: some zoogeographical considerations. *Systematics and Biodiversity* 1: 117–126.

2003b. *Arthroleptis troglodtyes* and the content of *Schoutedenella* (Amphibia: Anura: Arthroleptidae). *Afr. J. Herpetol.* 52: 49–51.

2003c. A new giant species of *Arthroleptis* (Amphibia: Anura) from the Rubeho Mountains, Tanzania. *Afr. J. Herpetol.* 52: 107–112.

2004a. Stream frogs in Tanzania (Ranidae: *Strongylopus*): the case of *S. merumontanus* and *S. fuelleborni*. *Afr. J. Herpetol.* 53: 29–34.

2004b. Review: *Atlas and Red Data Book of the Frogs of South Africa, Lesotho and Swaziland.* Edited by L.R. Minter, M. Burger, J.A.Harrison, H.H. Braak, P.J. Bishop & D. Kloepfer. *African Journal of Herpetology* 53: 193–196.

2004c. Herpetofauna of Mahenge Mountain, Tanzania: a window on African biogeography. (With S.P. Loader & J. Mariaux). *Afr. Zool.* 39: 71–76.

2005a. A new species of Stream frog, genus *Strongylopus* (Anura: Ranidae) from Mount Kilimanjaro, Tanzania, with comments on a 'northern volcanic mountains group' within the genus. (With B.T. Clarke). *Afr. J. Herpetol.* 54: 53–60.

2005b. *Bufo uzungwensis* of southern Tanzania (Amphibia: Anura): a history of confusion. (With M. Menegon & S. Salvidio). *African Journal of Herpetology* 54(2): 159–170.

2006a. On dwarf spiny reedfrogs in Tanzanian eastern lowlands. *Afr. J. Herpetol.* 55: 167–169.

2006b. Changing places: how the results of new field work in the Rubeho Mountains influence conservation priorities in the Eastern Arc Mountains of Tanzania. (With N. Doggart, A. Perkin, J. Klure, J. Fjeldså & N. Burgess). *Afr. J. Ecol.* 44: 134–144.

2007a. Amphibian diversity in East African biodiversity hotspots: altitudinal and latitudinal patterns. (With S.P. Loader, E. Sharratt & B.T. Clarke). *Biodivers. Conserv.*16: 1103–1118.

2008a. Clinal variation and its taxonomic consequences in the common Tanzanian forest frog, *Arthroleptis affinis.* (With S.P. Loader). *Copeia* 2008: 517–526.

2008b. A new giant species of *Arthroleptis* (Amphibia: Anura) from the

forests of the

Nguru Mountains, Tanzania. (With M. Menegon & S.P. Loader). *Afr. J. Herpetol.* 57: 63–74.

2009a. Re-description of the type series of *Nectophrynoides viviparus* (Bufonidae), with a

taxonomic reassessment. (With S.P. Loader, T.R.B. Davenport & M-O Rödel). *Zootaxa* 2304: 41–50.

2010a. Widespread historical presence of *Batrachochytrium dendrobatidis* in African pipid frogs. (With C. Soto-Azar, B.T. Clarke & A.A. Cunningham). *Diversity Distrib.* 16: 126–131.

2011a. Herpetofauna of montane areas of Tanzania. 3. Amphibian diversity in the northwestern Eastern Arc Mountains, with the description of a new species of *Arthroleptis* (Anura: Arthroleptidae). (With S.P. Loader, L.P. Lawson, D.C. Blackburn & M.M. Menegon). *Fieldiana: Life and Earth Sciences* 4: 90–102.

2012a. On the generic and specific identity of the holotype of *Rana hymenopus* Boulenger 1920 (Amphibia: Anura: Pyxicephalidae). (With B.T. Clarke). *Zootaxa*