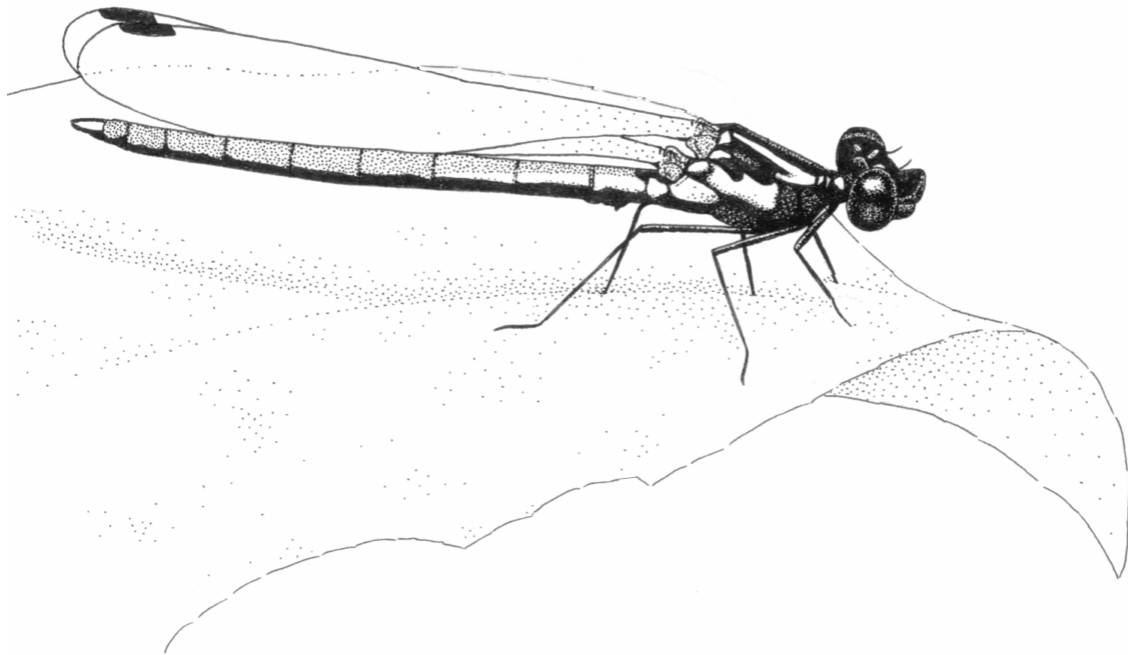


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Front cover: Chlorocypha tenuis, a species of damselfly found in Kakamega Forest. Drawing by K.-D. B. Dijkstra.



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NATIONAL MUSEUMS OF KENYA

WHERE HERITAGE LIVES ON

KIM MONROE HOWELL: IN MEMORIAM

15 September 1945 - 1 October 2022



Picture by Abubakar Ringim

Kim Monroe Howell, American zoologist, conservationist, and long-term resident of Tanzania, died on Saturday 1st October, in Dar Es Salaam, Tanzania, at the age of 77. An all-round professional zoologist, Kim tutored several generations of Tanzanian biologists, and inspired many to continue in the field. He was also a prolific writer, co-author of a checklist of Tanzanian reptiles and millipedes, several classic books on the smaller vertebrate fauna of eastern Africa, and many influential reports on Tanzanian biodiversity and conservation. He was active (and in some cases, the prime instigator) of several crucially important, long-term research projects, for example Frontier-Tanzania and the saving of the Kihansi Spray Toad, and represented Tanzania on a number of international conservation bodies. He was the Tanzanian representative for Birdlife International and one of the two representatives for Africa on the CITES Africa Region Animals Committee. Kim described nine genera of millipedes, several vertebrate and invertebrate species, and has four millipedes, a shrew, a gecko, a snake, two frogs, and a beautiful barbet named after him.

Kim Howell was born on the 15th of September 1945, in Syracuse, New York in a middle-class family; his father had a B.Sc. in Engineering as well as an MBA and his mother was a qualified secretary. Raised in Virginia, Kim attended Waynesboro High School, and subsequently earned a degree in Vertebrate Zoology at Cornell University. He worked on part-time basis at the college's library of natural sounds. After graduating in 1967, he saw an advertisement for a teaching job in Zambia, applied and got it. He had always been interested in Africa and saw this as an opportunity to pursue his interest in natural sciences and to further his studies in zoology. Kim left the US in July 1967 to teach in a secondary school in Zambia and he moved to Tanzania in July 1968 to teach in another secondary school. In July 1970, he joined the University of Dar es Salaam (UDSM) in the then Department of Zoology and Marine Sciences. He completed his PhD thesis on the ecology of insectivorous bats in 1976 and was appointed full professor in 1989.

Kim was interested in virtually all aspects of biology, and passionate about spreading his expertise. His mission was fourfold; to inspire in his students a love of the natural world; to persuade them to practise their craft in Tanzania; to document Tanzania's biodiversity, and its remarkable range of habitats; and to bring to

the notice of the wider public information on what organisms lived in Tanzania, and how they might be identified. He succeeded on all fronts. Not content with just lecturing, Kim researched regularly in the field, and wrote relentlessly, always useful stuff. As well as essential material like field manuals, and technical reports, the documentation of surveys and faunal lists, he published over 100 peer-reviewed scientific papers, 50 technical reports, conducted more than 30 consultancies, described 9 genera as well as 16 new species and authored seven books and 18 book chapters. Kim also co-authored three seminal works on East African herpetology; 'A Field Guide to the Reptiles of East Africa' (2002, revised in 2018), 'Amphibians of East Africa' (2006) and 'A Pocket Guide to the Reptiles and Amphibians of East Africa' (2006). One of the species he described was the Kihansi Spray Toad, *Nectophrynoides asperginis*; how this species was essentially exterminated in the wild but remains in existence in captivity, is one of Africa's most astonishing conservation stories.

Kim was a tall, spare, softly spoken, tolerant man, fluent in Swahili. In most of his pictures he looks dour, but he wasn't, as he had a wicked sense of humour. On one occasion at a snakebite conference in Watamu, Kenya, he decided to enliven the academics, who were looking somnolent after lunch, by throwing a rubber snake into the audience. One of his short publications, entitled 'Biology is Easy' was full of thought-provoking questions, but there were no answers, as they were intended 'for discussion'. He was dedicated to Tanzania and Tanzanian biology. One of his important contributions is his involvement in the assessment of the impact of several initiated developmental projects such as gold mines on biodiversity conservation. He conducted baseline biodiversity surveys in several such areas to establish long-term impacts of the projects to the Tanzanian biodiversity. He was a pioneer in establishing and enriching a specimen collection at the university that has been a very useful and important facility in inspiring many young Tanzanian biologists in their career.

In 2010, Kim had major heart surgery in India. He recovered well and remained active in teaching, research and consulting. He officially retired from UDSM in June 2016 but continued writing. In 2017, he was co-author of the revision of the earlier field guide to East African Reptiles and published a new checklist of the herpetofauna of the Udzungwa Mountains. Kim was diagnosed with progressive supranuclear palsy (PSP) in June 2019. He kept working on two books: one, almost complete, on the history of the Department of Zoology and Wildlife Conservation, and another on the history of biodiversity studies in Tanzania. He died from complications of PSP on the 1st of October 2022. He leaves a wife, Imani Swilla, and a daughter, Nelly. *Safiri Salama*, Kim.

Stephen Spawls

Shortly after his arrival in Dar, Kim commenced correspondence with Peter Nares, then director of Nairobi Snake Park, about both herpetology and the captive maintenance of reptiles, and subsequently he visited the Snake Park several times. I first met him there in 1970, and we remained friends ever since. What I remember most was his quiet determination. Once in Nairobi, we organised a trip to a highland swamp. Peter Nares suggested we go in the early afternoon, but Kim shook his head. No point in going until near dusk, he said, we are after frogs. As we drove out to the swamp, it began to rain, and Peter suggested we better call the trip off, but Kim shook his head. Rain is the best time for frog hunting. And so it proved. Being with Kim in a wild place was illuminating; he knew the birds, the plants, the invertebrates, and his conversation was enlivened with endless fascinating nuggets. Once, walking around the grounds of the University of Dar Es Salaam, we happened on a dead Rufous Beaked Snake, and I mentioned that in Kenya, my field assistants often described these snakes as white. 'Here in Dar', Kim told me, 'If I get called out for a white snake, it's virtually always a black mamba. So it should be called a white mamba'.

In 1998, I decided to try to complete a project I had started some years earlier, a field guide to East African reptiles. Kim was my first choice of co-author, and I wrote to him, his response started; 'Steve, you just blew my mind!'. We were a team of six, not always easy to collate. Kim was a total professional; I essentially asked him to write the accounts for all the Tanzanian endemics and near endemics, and he set to immediately. My only problem with Kim was his thoroughness. Our publishers had set a word limit of about 200 000 words, which meant about 400 words per species, Kim's accounts averaged around 1000 words. I asked if he would mind if I abbreviated them, this can be a sensitive point with authors, but Kim's reply was accommodating; 'Sure,' he wrote 'us wordy *wazees* often try to cover the lot. Shorten them as you see fit'.

Norbert J. Cordeiro

I first met Kim in 1990 at the Wildlife Conservation Society of Tanzania. He was kind and welcoming and encouraged me to join a Cambridge University student expedition as one of their Tanzanian counterparts. Kim was generous about sharing his knowledge and passion on the smaller, poorly-studied animals of Tanzania. He was always willing to assist others and I benefited greatly from his advice and acute knowledge about

Tanzanian biodiversity. At in-country meetings or conferences, his former students involved with wildlife conservation always came to greet him and he somehow knew each and every one of them. When it comes to reptiles, amphibians, small mammals and millipedes, I would say that Kim's deep involvement with these groups helped us understand more about the isolated Tanzanian forests and evolutionary processes of these taxa. In very quiet, modest and unassuming ways, Kim made massive contributions in academia, conservation biology and humanity.

Jasson John

I first met Kim towards the end of 2002 when I joined the University of Dar es Salaam as a postgraduate student, and we continued interacting especially on matters related to birds of Amani, where I did my M.Sc. research, and the University of Dar es Salaam Campus. Sometimes we differed on the new records at the campus which I reported to him. Kim, having lived at the University Campus for over 30 years, I felt edgy to argue with him on any new record in the area. Understandably, these species were mostly escapees of the live bird trade found out of their normal ranges such as the Red-and-Yellow Barbet. I later joined Kim in 2007 as a member of academic staff and we co-taught a course on the Biology of Birds in 2007/2008, and from 2013 until his retirement in 2016. Apart from the ornithological knowledge I learnt when assisting his classes, Kim taught me how to be focused, organised, careful with student affairs and time management. On his retirement, he gave me a lot of materials in which he was involved especially on bird strikes and a checklist of birds of the University Campus. I am currently writing a pocket-sized book on the birds of the University Campus, and it saddens me that he has not lived to read the publication. Rest in peace, Kim.

Henry Ndangalasi

I came to know Prof. Kim Howell when I joined the University of Dar es Salaam for a Bachelor of Science with Education in late 1989. He used to teach one course of Zoology and the topic was on reptiles. The subtopic was on snakes. He kept on insisting that we should not be afraid of snakes because some of them are not poisonous at all. When concluding the subtopic he said, now that I have taught you about snakes I believe next time you come across a snake you will not be afraid. At that juncture, he threw a 'snake' from his trouser to the bench where students sat. Every one ran away to save his/her life from the 'snake'. Before we could look at it carefully and of course from a distance, he went quickly, grabbed it and put it back in his trouser. Personally, I was terrified and I couldn't imagine someone courageous enough to put a snake in his pocket. We came to learn later that it was a plastic snake.

With a financial support from GEF Project, I joined an M.Sc. Botany at the same University in early 1994. This is the time when I interacted more closely with Kim because he was also involved in this project. At one time we travelled together to Kakamega, Kenya for a field workshop, a meeting that drew participants from Kenya, Uganda and Tanzania under the GEF Project. He was one of the facilitators in that workshop.

I always admired him for being so knowledgeable on biodiversity issues. He was very supportive to me, whenever he spotted materials (papers, books, pamphlets) that he thought were useful to me, he would pass them on.

In 1998 he was invited to teach the TBA course at Amani in East Usambara—the first time TBA ran a month-long course in Tanzania. Prof. Kim invited me to join him for that trip and we drove from Dar es Salaam. This was my first time to visit East Usambara Mountains and I appreciated the differences between montane forests and the coastal forest of Pugu Forest Reserve where I researched for my Master's thesis. Since this first visit I have been frequenting East Usambara (in collaboration with other scientists) for research. Probably I wouldn't be working there if he had not taken me to Amani.

Prof. Kim developed trust in me and involved me in most of the baseline studies carried out for different projects in the country, including the big gold mines in northern Tanzania. I participated in undertaking baseline surveys (vegetation component) for Bulyanhulu, Tulawaka and Geita Gold Mines among others. I also interacted with Prof. Kim in carrying out studies in the Kihansi gorge. These studies gave me more exposure and understanding of the different ecosystems and biodiversity issues across the country and I should confess they were very important in building up my career.

I will much miss him. Rest in Peace Prof. Kim Howell.

Tim Davenport, Lucinda Lawson, Simon Loader, John Lyakurwa, and Michele Menegon

We have all depended on Kim's wisdom at some stage in our career. Kim was someone who you could seek advice from and who you would be careful to listen to every word "you ask me one question, I ask you ten" he would say. Kim had an impressive biological and historical knowledge and life experience to pass on and he did so with his refreshing candour. During one field trip to the Udzungwa mountains he remarked "you see

I am nearly 70 and don't have any permanent scar, or organ missing due to venomous snake bite, I hope it will be the same at your 70's". Sitting in his office we all can recollect conversations had, *e.g.* what was this species, did he know if this species was found only in submontane forest, how did this species of frog breed, how was the road to Tegetero, among many other Tanzania miscellany. Kim would revel with us in the journeys about to be embarked on or returning from and be curious to know what you had found or were about to.

A visit to Kim's office, filled with books to the ceiling, was top of all our lists when arriving back from or departing Dar es Salaam for the field. He had a twinkle in his eye, through his large-rimmed glasses, which conveyed his love for his work, the people in his life and the country he worked in. Kim was a humble person, and rather than think he was the best at everything, would recommend colleagues with skills that could help, he was a man who sought collaboration while also contributing his ideas and knowledge appropriately. It was never for himself but for the improvement of knowledge itself. Kim was a mentor to us all in some way, small and large, and we were all inspired by his infectious love of natural history and Tanzania.

There were always fond memories of sitting next to Kim at 'big' meetings. One such occasion was at a regional biodiversity meeting in Uganda about 15 years ago. During the obligatory round-robin introductions he simply said "Hello, my name is Kim, and I like all animals except the charismatic ones". There was no reference to his position or standing, and absolutely no excuses for a passionate focus on the less appealing. This was Kim. His deep knowledge was only surpassed by his humility, and a teasing hint of quirkiness and irreverence.

Kim seemed to change as soon as he got into the field. His eyes lit up and he became filled with a renewed energy. Climbing the Kihansi Gorge in 2000 to collect his beloved toads for the captive breeding program in the US, was one case in point. He was a constant source of biological anecdotes and information, but he still ably helped the film crew—many half his age—to physically scramble up the mountainside. At the same time of course, he was discussing a *Charaxes* he had just seen, or some seemingly random millipede. His infectious enthusiasm had us collecting diplopods, odonates or micro-molluscs for many years to come.

Latterly, one of us had been working with him on a definitive publication; "The Mammals of Tanzania" a publication with the emphasis very much on the inclusion of all the rodents, shrews and bats. I received constant messages asking how it was going, but always with a reminder to focus on the little guys. This will be done. One more homage to a magnificent and unique man, a huge inspiration to so many.

We believe that of all his numerous contributions to the study of natural history in East Africa, including an impressive publication list, by far the largest was his understanding that Tanzanians should claim ownership of understanding their own biodiversity. Kim was instrumental in training and supporting Tanzanians, including giving books and field gear, and this will be a major part of his legacy towards the understanding and preservation of Tanzanian biodiversity. *Pumzika kwa amani* Kim.

David Moyer

I first met Kim in the mid-70's. I was a teenager and passionately interested in natural history and my dad would drop me off at the University of Dar es Salaam to learn from Kim. He was a true mentor and encouraged me to collect specimens to further the knowledge of Tanzanian biodiversity and make a contribution to science. Throughout the intervening 40 years Kim was always a stalwart, one individual that did not change when many others came and left. He was instrumental in helping me get research and collecting permits when I began my graduate studies in the Udzungwas, and was always ready to write letters of support and advocate on my behalf in other practical ways when this was needed. We spent many happy days in the field in the Udzungwas at the Kihansi Gorge and in North Western Tanzania in Minziro Forest enjoying being out in nature and finding new species. Kim's interest in nature never diminished and even when he could no longer communicate clearly his eyes lighted up when the topic turned to recent discoveries of new species. It was a huge privilege to have known Kim these past decades and he was one of the truly inspiring figures in my life. It was with a profound sense of loss that we scattered his ashes near the bat caves in the Pugu Hills where he did his PhD research so many years ago.

Abubakar S. Ringim

While he was an avid naturalist, who loved intellectual discussion and field expeditions, his biggest impact was on the scientific community. Kim was an extraordinary person, an epitome of knowledge, and was loved

and known by everyone as a true mentor. His willingness to share his vast knowledge and see his mentees excel in life is something we all cherished about Kim. On a personal note, I recall that in 2015, during my Master's study, he asked me to meet him in his office. As I was thinking about what the problem could be, Kim sat with me for more than 30 minutes, telling me about the potential he sees in me and strategies to improve my personal growth. He connected me with other great scientists, the most prominent being Stephen Spawls. Kim routinely handed out books, magazines, and pamphlets, and would take us out within the University of Dar es Salaam bush to explore nature and learn from what is there in the environment. Kim would confidently describe to us the natural history of what we encountered in the field and would also highlight the history of what was there and what was lost over decades within the university campus due to urbanization and development. The last time I heard from Kim was in 2021, when I sent him an email inquiring about his well-being, and he replied to me that even though he is relatively well, he is not "seeing well" and he was sorry for the typographical errors in the email. I almost shed tears knowing his values and capacity for the academic and scientific world! Kim was a great inspiration, and I must ascribe some of my achievements to his guidance and advice. As a West African, I consider it a privilege to be taught by Kim. Prof. Kim will be dearly missed by all who knew him, especially his mentees. He lived a very fulfilled life as a man who made a positive impact on the world in more ways than one.

Benny Bytebier

Kim was a member of the editorial committee of the JEANH between 2004 (Vol 94 Part 1, 2005) and 2014 (Vol 103 Part 1, 2014). Although we were in regular contact, I only met him once in Dar, while visiting the University of Dar Es Salaam. Even after he stepped down as editor of the JEANH, he would phone me in South Africa to ask how things were going. He published several paper in the JEANH and encouraged many of his colleagues and students to send us their contributions. His enthusiasm was infectious. I will miss him.

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NEW TAXA DESCRIBED BY K.M. HOWELL

Millipedes

Genera

- *Apoctenophora* Hoffman & Howell, 1982
- *Callistodontopyge* Hoffman & Howell, 1981
- *Calyptomastix* Hoffman & Howell, 2012
- *Dendrostreptus* Hoffman & Howell, 1983
- *Elassystemma* Hoffman & Howell, 1981
- *Elkestreptus* Hoffman & Howell, 1996
- *Erythranassa* Hoffman & Howell, 1987
- *Nasmodesosoma* Hoffman & Howell, 1985
- *Usambaranus* Hoffman & Howell, 1984

Species

- *Apoctenophora trachypyga* Hoffman & Howell, 1982
- *Callistodontopyge latifolia decora* Hoffman & Howell, 1981
- *Ceratodesmus coriarius* Hoffman & Howell, 1980
- *Ceratodesmus fraterculus* Hoffman & Howell, 1980
- *Elassystremma pongwe* Hoffman & Howell, 1981
- *Erythranassa saucra* Hoffman & Howell, 1987
- *Macrolenostreptus orestes* Hoffman & Howell, 1996
- *Nasmodesosoma phantasmogon* Hoffman & Howell, 1985
- *Usambaranus stuarti* Hoffman & Howell, 1984

Amphibians

- *Phrynobatrachus uzungwensis* Grandison and Howell, 1983
- *Nectophrynoides asperginis* Poynton, Howell, Clarke, and Lovett, 1999
- *Arthroleptides yakusini* Channing, Moyer, and Howell, 2002
- *Kassina jozani* Msuya, Howell, and Channing, 2007

Reptiles

- *Atheris matildae* Menegon, Davenport & Howell, 2011
- *Kinyongia msuyae* Menegon, Loader, Davenport, Howell, Tilbury, Machaga & Tolley, 2015

Mammals

- *Rhinolophus maendeleo* Kock, Csorba & Howell, 2000

EPONYMY

Millipedes

- *Stemmiulus howelli* Mauriès, 1990
- *Chaleponcus howelli* Enghoff, 2014
- *Tanzaniella howelli* Hoffman, 1977
- *Endecaporus howelli* (Hoffman, 1983)

Amphibians

- *Mertensophryne howelli* (Poynton and Clarke, 1999)
- *Hyperolius howelli* Du Preez and Channing, 2013

Reptiles

- *Leptotyphlops howelli* Broadley & Wallach, 2007
- *Lygodactylus kimhowelli* Pasteur, 1995

Birds

- *Stactolaema olivacea howelli* (Jennsen & Stuart, 1982)

Mammals

- *Sylvisorex howelli* Jenkins 1984

Obituary compiled by Steve Spawls, John Lyakurwa and Benny Bytebier, with contributions from Wilirk Ngalason, Norbert Cordeiro, Jasson John, Jennifer Pramuk, Henry Ndangalasi, Tim Davenport, Lucinda Lawson, Simon Loader, Michele Menegon, David Moyer, Abubakar S. Ringim, and kindly checked by Imani Swilla, December 2022