

Obituary: Professor Ying-Xiang Wang (1938-2016)

Xue-Long JIANG

It is with great sadness that I share the sorrowful news that mammalogy and wildlife science lost a respected scientist, patient teacher, and wonderful mentor on 10 February, 2016, when Professor Ying-Xiang Wang died in Kunming, Yunnan Province, due to heart failure following a lung infection. He is survived by his wife Professor Rui-Qing Liu, daughter Li Wang, son Tao Wang, daughter-in-law Qing Sun and granddaughter Jun-Qi Wang.

Professor Wang was born on 21 July, 1938, in Honghe, Yunnan, where he spent his childhood until the age of seven. He moved to Kunming with his parents following an acute bout of bronchitis, the effects of which he battled all his life.

Professor Wang registered as a zoological student in 1957 and studied at Sichuan University for five years. Following his graduation in 1962, he took a job and began his lifelong career as a mammalogist at the Kunming Institute of Zoology (KIZ), Chinese Academy of Sciences. As a young researcher, he participated in numerous fauna surveys in Kunming and the surrounding areas in 1962 and 1963, but undertook his first large field expedition to investigate the mammals and birds of Wuliang Mountain in central Yunnan in 1964. It was during this expedition that he realized the importance of the preparation and education needed to be an outstanding mammalogist, and subsequently trained and worked under Professor Wu-Ping Xia in Inner Mongolia in 1965, with an emphasis on small mammal research.

Many Chinese scientists were impacted with the arrival of the political "Cultural Revolution" in 1966. However, Professor Wang was lucky enough to be able to continue with his mammalian research and related field surveys. Of particular note was his work on the breeding of the threatened *Viverra zibetha* from 1966 to 1973, based upon which he and his colleagues published a book entitled *Breeding of Large Indian Civet and Civet Extraction* (Civet Research Group of Kunming Institute of Zoology & Chinese Academy of Sciences, 1990). Professor Wang also conducted numerous vertebrate surveys and specimen collections in the Gaoligong Mountains, with a focus on small mammals, from 1973-1975. From then, his footprints were left across many mountain ranges in China, such as Baimaxueshan, Biluoxueshan, Xishuangbanna, and Honghe in Yunnan, Shalulishan and Daxueshan in Sichuan, Fanjingshan and Leishan in Guizhou, Wulingshan in Chongqing and Hubei. He also worked as a team leader for a number of vertebrate expeditions, such as in the Honghe Prefecture from 1984 to 1985, and edited a book entitled *Scientific Reports*



Professor Ying-Xiang WANG, mammalogist, 1938-2016

of *Biological Resources in Honghe Prefecture, Southern Yunnan: Terrestrial Vertebrates* (Wang, 1987a). With all these impressive achievements, he was promoted to a full Professor of Zoology in KIZ in 1990.

Professor Wang acted as the head of the mammal research group in KIZ, and conducted extensive research on taxonomy, phylogeny, zoogeography, and the conservation of mammals linked to museum specimens and field observations from 1983 until he retired in 2003. However, he worked until his final days as the Editor-in-Chief of *Fauna Sinica Mammalia* Vol. 3 *Primates, Lagomorpha and Pholidota*, even showing me his work on our last visit together on the evening of 1 February, 2016.

During his career, Professor Wang published 121 scientific papers and key references on mammalian taxonomy and early karyotype studies on birds and mammals (Chen et al., 1992, 1993; Wang et al., 1980, 1982, 1983). He conducted many taxonomic reviews and revisions of different mammal groups, such as shrews (Jiang et al., 2003), bats (Feng et al., 2006, 2007, 2008a,b; Zhou et al., 2009), tree shrews (Wang, 1987b), macaques (Jiang et al., 1991, 1993, 1996), langurs (Wang et al., 1999), gibbons (Groves & Wang, 1990; Ma & Wang, 1986), musk deer (Groves et al., 1995), muntjacs (Ma et al., 1986), squirrels (Li et al., 2005, 2006), voles (Luo et al., 2004; Wang &

Dr. XL JIANG is at the State Key Laboratory of Genetic Resources and Evolution, Kunming Institute of Zoology, Chinese Academy of Sciences.

E-mail: jiangxl@mail.kiz.ac.cn

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Li, 2000), rats (Wang et al., 1996), and hares (Wang et al., 1985). He and his colleagues described five new mammal species, including *Ochotona gaoligongensis* (Wang et al., 1988), *Muntiacus gongshanensis* (Ma et al., 1990), *Ochotona nigritia* (Gong et al., 2000), *Tylonycteris pygmaeus* (Feng et al., 2008b), and *Rhinolophus xinanzhongguoensis* (Zhou et al., 2009), and many new subspecies, such as *Callosciurus erythraeus wuliangshanensis* (Li & Wang, 1981), *Callosciurus erythraeus gongshanensis*, *Paguma larvata chichingensis*, *Petaurista petaurista nigra*, *Micromys minutus pianmaensis* (Peng & Wang, 1981), *Paradoxurus hermaphroditus hainanus* (Wang & Xu, 1981), *Pipistrellus paterculus yunnanensis*, *Pipistrellus circumdatus drungicus* (Wang, 1982), *Neotetracus sinensis hypolineatus* (Wang & Li, 1982), *Lepus comus pygmaeus*, *Lepus comus peni* (Wang et al., 1985), *Nomascus concolor jingdongensis*, *Nomascus concolor fuvogaster*, *Hylobates lar yunnanensis* (Ma & Wang, 1986), *Hadromys humei* (Yang & Wang, 1987), *Tupaia belangeri gongshanensis*, *Tupaia belangeri yaoshanensis* (Wang, 1987b), *Dremomys lokriah nielamuensis* (Li & Wang, 1992), *Typhlomys cinereus guangxiensis*, *Typhlomys cinereus daloushanensis* (Wang et al., 1996), *Macaca thibetana huangshanensis*, *Macaca thibetana guizhouensis* (Jiang et al., 1996), *Rhinopithecus roxellana qinlingensis*, *Rhinopithecus roxellana hubeiensis* (Wang et al., 1998), *Niviventer confucianus yajiangensis*, *Niviventer confucianus deqinensis* (Deng et al., 2000), and *Callosciurus erythraeus zhaotongensis* (Li et al., 2006). He also reported new records for Chinese mammalian fauna, e.g., *Hadromys humei* (Yang et al., 1985), *Niviventer brahma* (Gong et al., 1989), *Manis javanica* (Wu et al., 2005), *Megaerops ecaudatus*, *Megaerops niphanae* (Feng et al., 2006), and *Leopoldamys neilli* (Chen et al., 2014). He achieved a career milestone in publishing *A Complete Checklist of Mammal Species and Subspecies in China: A Taxonomic and Geographic Reference* in 2003, which was the first complete and systematic book on Chinese mammals and is highly cited to this day. In 2007, he and his colleagues published *A Field Guide to the Mammals of China*, in which they provided details on the physical attributes and distributions of 346 mammals in colorful plates, and also updated the checklist of Chinese mammals from 607 to 645 species. He also made great contributions to *Fauna Sinica Mammalia* Vol. 8 *Carnivora* (Gao, 1987), Vol. 6 *Rodentia* Part III: *Cricetidae* (Luo et al., 2000), and many other publications, such as the *Biology of Chinese Tree Shrews* (Peng, 1991), *Evaluation on Animal Resources from Wuling Mountain Areas, Southwestern China* (Song, 1994), *The Natural History of the Doucs and Snub-nosed Monkeys* (Jablonski, 1998), and *Comprehensive Surveys of Xishuangbanna Nature Reserve* (Xu et al., 1987), *Gaoligong Mountain National Nature Reserve* (Xue, 1995), *Nujiang Nature Reserve* (Xu, 1998), *Jingping Fenshuiling Nature Reserve* (Xu, 2002), *Yunnan Luchuan Huanglianshan Nature Reserve* (Xu, 2003), *Baimaxueshan National Nature Reserve* (Li, 2003), *Wuliangshan National Nature Reserve* (Yu, 2004), *Lancangjiang Nature Reserve* (Wang et al., 2010), and *Yunnan Jiaozishan National Nature Reserve* (Peng & Liu, 2015).

Throughout his career, Professor Wang contributed to the

field of mammalian research in many ways. He became a member of the Chinese Society of Mammalogists after it was established in 1980, and served as the vice head and head of the Chinese Primate Research Group from 1990-2002. He and other senior Chinese mammalogists, e.g., Professor Qi-Shan Wang from Anhui University, were significant in pushing forward Chinese primate research and training many young primate primatologists. He served as the President of the Yunnan Zoological Society from 1992-2003 and as the Associate Editor-in-Chief of *Zoological Research* from 1988-1990 and from 2010 until his death. He was also a member of the *Acta Theriologica Sinica* editorial board from 2001 to 2013 and part of the Scientific Committee for Taxonomy of the Chinese Academy of Sciences from 2006 to 2010. He served as deputy director of the Yunnan Wildlife Conservation Association and Evaluation Committee of Yunnan Nature Reserves from 2000-2008.

Professor Wang was active on the international front as well, and collaborated with many scientists from different countries, including Dr. Jack Fooden from the US on the taxonomic status and distribution of Chinese stump-tailed macaques (Fooden et al., 1985), Dr. Frank E. Poirier from the US on the taxonomy, distribution and behavioral ecology of gibbons and langurs (Jiang et al., 1994a, b; Ma et al., 1988, 1989), and Dr. Colin C. Groves from Australia on the taxonomy and distribution of musk deer and *Nomascus* gibbons (Groves & Wang, 1990; Groves et al., 1995). He also collaborated with Russian and Japanese scientists on the phylogeny and evolution of mammals such as wood mice (Suzuki et al., 2003), talpid moles (Shinohara et al., 2004), flying squirrels (Yu et al., 2004, 2006), weasels (Abramov et al., 2008), and erinaceids (He et al., 2012).

I came to Professor Wang as a graduate student in 1986 and achieved my MS degree in 1989 and PhD in 2000 under his supervision. Professor Wang was an excellent supervisor: fair, supportive, strict and kind. He helped and mentored many students and young scientists, including six MS and four PhD students, and encouraged hard work and self-dependency for their scientific career development. He would often tell us a story of his student days when he was asked by his professor, Hong-Shou Peng, to prepare a specimen of a very dead and decaying house rat found in a rubbish dump – although the preparation was difficult and unpleasant, the end result was work well done. He truly enjoyed working with young researchers and sharing his experience and expertise with his students, especially in regards to mammalian taxonomy and evolution. He worked tirelessly, coming to his office every working day for ten years after he retired at 65, and continuing to work from home even though he was severely ill. He showed this passion until the very last minute. We mourn his passing deeply.

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