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## In memoriam

## Chong-zhou Zhang [1930-2014]



Our small and vulnerable myriapodological community has lost yet another distinguished member and keen taxonomist. Professor Chong-zhou Zhang passed away in Beijing on March 24th, at the age of 84. A lengthy severe cold followed by pneumonia took Prof. Zhang in the Intensive Care Unit of a hospital, where he was held since August 2013. Until his last minutes Prof. Zhang was surrounded by the warm care of his wife Shu-ming Ma, and the love of his two children and 4-year-old granddaughter.

Prof. Zhang was born on July 1, 1930 in Cangzhou, Hebei Province, but spent most of his childhood in Tianjin City. He graduated from the Department of Biology, Nankai University in 1957. Since 1957 he has worked at the Institute of Zoology, Chinese Academy of Sciences, where he retired in 1990 but kept working until 2000. In 1980 he became a member of the Centre Internationale de Myriapodologie, Paris. Since 1986 he has been an Associate Professor at the Institute of Zoology.

Prof. Zhang will be remembered mostly for his taxonomic papers on millipedes of China. He made some of the most remarkable discoveries of our time, namely the callipodidan family Sinocallipodidae (subsequently upgraded to a suborder) that proved to be the most basal lineage of all callipodidans. It was him and his master student Da-qing Wang to find in South China and describe one of the most speciose callipodidan families, Paracortinidae. Besides, his legacy also includes several new genera of Polydesmida (Wulingia, Inversispina), Spirostreptida (Ararcogonopus, Uriunceustreptus) and Callipodida (Sinocallipus, Angulifemur), as well as more than 40 new species of millipedes of the orders Glomerida, Spirostreptida, Julida, Spirobolida, Spirostreptida, Callipoida and Polydesmida.

Although millipedes were his main focus of research, Prof. Zhang had much broader interests and also published occasionally on centipedes, symphylans and pauropods. His contributions to the study of these groups, among others, include four new species of Lithobiomorpha and Pauropoda each, and a new species of *Scolopendra*.



Professor Zhang with his wife Shu-ming Ma in his office

In addition to taxonomy, his research interests involved centipede reproduction and behavior, and the medical use of myriapods in the Chinese medicine. His studies brought to light the first data for the fauna of remote areas in China, such as Tibet, Hoh Xil, Wuling Mountains and Xishuangbanna. He was also very much interested in the study of cavedwelling myriapods of China. As a keen speleologist he was among the organizers of the XI<sup>th</sup> International Congress of Speleology, held in Beijing in 1993.

It is hardly known that Prof. Zhang hasn't always been a myriapod scholar. His first papers actually dealt with crustaceans, on which he started to work under the supervision of Professor Jia-rui Shen. In the period 1959-1962 he worked in a laboratory at Baiyangdian Lake, Hebei province, where he studied the freshwater cladocerans and copepods. After the death of Professor Shen in 1975 he shifted his interests entirely to myriapods.

Prof. Zhang published altogether more than 45 myriapodological papers, mostly in the specialized journals Acta Zootaxonomica Sinica, Sinozoologia, and Chinese Journal of Zoology, as well as two books on the biology and breeding technology of centipedes used in medicine. He was regularly in contact with the late Dr. Richard Hoffman and other world authorities from Europe and USA, with whom he consulted his discoveries. Almost all type specimens of species described by Prof. Zhang are currently kept in the Institute of Zoology, CAS and can be obtained upon demand from the collection manager.

Prof. Zhang was a very devoted researcher, a good friend and colleague and the first Chinese zoologist to carry out a systematic national-scale survey of myriapods. He completely deserves to be titled a doyen of Chinese myriapodology!

## Pavel Stoev, Shuqiang Li, Kaibaryer Meng





Professor Zhang with Fan Zhang during a field work / The type specimens of *Pacillidorsus dorsiangulatus* Zhang in: Zhang & Wang, 1993 (now *Eutrichodesmus dorsiangulatus*) in the collection of the Institute of Zoology, Chinese Academy of Sciences

## A list of the scientific publications by Chong-zhou ZHANG\*

\*The original anglicized version of Professor Zhang's name is CHANG Chung-chow. The current system for transliteration of Chinese names is based on how the name sounds in Chinese and thus, his name is spelt ZHANG Chong-zhou.

- HUANG Ming-xian, OUYANG Hui-qing, CHANG Chung-chow, CAI Guo-hua, ZONG Zhi-xuan, LIN Qing-xiang (1959) Investigation of fishery biology in winter at Baiyangdian Lake. Chinese Journal of Zoology 3(3): 89–95. (In Chinese)
- 2. SHEN Chia-jui, CHANG Chung-chow (1964) Cladocera at Baiyangdian Lake from Hebei Province. Chinese Journal of Zoology 6(3): 128–132. (In Chinese)
- 3. SHEN Chia-jui, CHANG Chung-chow (1965) Larval development of *Metadiaptomus asiaticus* Uljanin. Oceanologia et Limnologia Sinica 7(2): 141–148, Plate I–VII. (In Chinese)
- 4. SHEN Chia-jui, CHANG Chung-chow (1966) On Copepods of Inner Mongolia and Ning-Hsia, North China. Acta Zoologica Sinica 18(2): 209–219. (In Chinese, with English summary)
- 5. ZHANG Chong-zhou, LI Zhi-ying (1975) Identification of Chilognatha and Pselaphognatha. Chinese Journal of Zoology 10(4): 29–30. (In Chinese)
- 6. ZHANG Chong-zhou, LI Zhi-ying (1976) Harpacticoida (Copepoda, Crustacea) from Xisha Islands of Guangdong Province, China. Acta Zoologica Sinica 22(1): 66–70. (In Chinese, with English summary)
- 7. ZHANG Chong-zhou, LI Zhi-ying (1976) A new species of *Limnoithona* (Oithonidae, Cyclopoida) from China. Acta Zoologica Sinica 22(4): 403–405. (In Chinese, with English summary).
- 8. ZHANG Chong-zhou, LI Zhi-ying (1977) Eine neue *Yunnanina*-Art (Diplopoda) aus China. Acta Zoologica Sinica 23(4): 357–359. (In Chinese, with German summary)
- 9. ZHANG Chong-zhou, CHEN Guo-xiao, WANG Jin-shen (1977) Medicinal centipede of Duan County, Guangxi. Chinese Journal of Zoology 12(2): 33–34. (In Chinese)
- 10. ZHANG Chong-zhou, LI Zhi-ying (1978) *Kromopolites svenhedini* (Verhoeff) (Diplopoda, Strongylosomidae) used in traditional Chinese medicine. Chinese Journal of Zoology 13(3): 12–13. (In Chinese)
- 11. ZHANG Chong-zhou, LI Zhi-Ying (1978) Myriapoda from Xisha Islands. Chinese Journal of Zoology 13(4): 1–3. (In Chinese)
- 12. ZHANG Chong-zhou, LI Zhi-ying (1979) Studies on the habits and characteristics of *Scolopendra subspinipes mutilans* (Chilopoda). Chinese Journal of Zoology 14(1): 20–22. (In Chinese)
- 13. ZHANG Chong-zhou, LI Zhi-ying (1979) Observations on egg-laying of *Scolopendra subspinipes mutilans* (Chilopoda). Chinese Journal of Zoology 14(4): 13–15. (In Chinese)
- 14. ZHANG Chong-zhou, LI Zhi-ying (1980) Medicinal Diplopoda. Journal of Traditional Chinese Medicine 466: 66–67. (In Chinese)
- 15. ZHANG Chong-zhou, LI Zhi-ying (1980) The development of *Scolopendra subspinipes mutilans* L. Koch (Scolopendridea, Chilopoda). Chinese Journal of Zoology 15(4): 17–19. (In Chinese)
- 16. ZHANG Chong-zhou, LI Zhi-ying (1981) Eine neue Art vom *Archandrodesmus* (Cryptodesmidae, Diplopoda) aus China. Acta Zootaxonomica Sinica 6(3): 250–252. (In Chinese, with German summary)
- 17. ZHANG Chong-zhou, LI Zhi-ying (1981) Über Bilinguidae fam. nov. (Diplopoda: Spirostreptida) aus dem südchinesischen Karstgebiete. Acta Zootaxonomica Sinica 6(4): 373–377. (In Chinese, with German summary)
- 18. ZHANG Chong-zhou, LI Zhi-ying (1982) *Centrodesmus cornutus* sp. nov., eine neue Diplopoden-Art aus dem Süd-China (Paradoxosomatidae: Polydesmida). Acta Zootaxonomica Sinica 7(1): 37–39. (In Chinese, with German summary)
- 19. ZHANG Chong-zhou, LI Zhi-ying (1982) Die Gattung *Glyphiulus* (Diplopoda: Cambalidea) von China. Sinozoologia 2: 85–93. (In Chinese, with German summary)
- 20. ZHANG Chong-zhou, LI Zhi-ying (1982) Eine neue Art vom *Chinosphaera* (Sphaerotheriida, Diplopoda) aus China. Acta Zootaxonomica Sinica 7(2): 152–154. (In Chinese, with German summary)
- 21. ZHANG Chong-zhou, LI Zhi-ying, Mao Jie-rong (1982) Symphyla of China. Chinese Journal of Zoology 17(2): 4–7. (In Chinese)
- 22. LI Zhi-ying, ZHANG Chong-zhou (1982) Experimental studies on the increase in the breeding rate of *Scolopendra subspinipes multilans* by use of the artificial nest. Chinese Journal of Zoology 17(4): 27–30. (In Chinese)
- 23. ZHANG Chong-zhou, LI Zhi-ying (1983) *Scolopendra mazbii* Gravely from Tibet. Chinese Journal of Zoology 18(5): 50–51. (In Chinese)
- 24. ZHANG Chong-zhou, JIN Yi-lang 1983. A textual study on the medicinal Myriapoda in Ben-Cao-Gang-Mu. Journal of Zhejiang College of Traditional Chinese Medicine, Supplement, 50–57. (In Chinese)

- 25. ZHANG Chong-zhou, CHEN Zhong-ping. (1983) A new species of the genus *Epanerchodus* (Diplopoda: Polydesmidae) from Zhejiang Province. Journal of Zhejiang Teacher's College (Natural Sciences Edition) 6: 87–89. (In Chinese, with English summary)
- 26. ZHANG Chong-zhou, LI Zhi-ying, JIANG Feng-wu (1983) Medicinal Oniscomorpha in China. Chinese Journal of Zoology 18(6): 1–3. (In Chinese)
- 27. ZHANG Chong-zhou, ZHANG Fu-xiang (1983) Centipedes and millipedes. Bulletin of Biology, Beijing 6: 19–21, 24. (In Chinese)
- 28. ZHANG Chong-zhou, MAO Jie-rong (1984) A new species of the genus *Kiulinga* (Diplopoda: Xystodesmidae). Acta Zootaxonomica Sinica 9 (2): 135–137. (In Chinese, with English summary)
- 29. LI Zhi-ying, ZHANG Chong-zhou (1984) Species of medicinal centipede and artificial culture. Chinese Journal of Zoology 19(4): 12–15. (In Chinese)
- 30. ZHANG Chong-zhou (1985) A new millipede of the genus *Skleroprotopus* in Shifo Cave, Fangshan County, Beijing. In: The Geographical Society of China (ed.), Karst Geomorphology and Speleology, Science Press, Beijing. pp. 154–156. (In Chinese)
- 31. ZHANG Chong-zhou (1985) A new species of millipede of the genus *Junceustreptus* in southwestern China (Diplopoda: Harpagophoridae). Acta Zootaxonomica Sinica 10 (2): 137–139. (In Chinese, with English summary)
- 32. ZHANG Chong-zhou, TANG Hong-ging (1985) Eine neue Art der Gattung *Hedinomorpha* (Diplopoda: Paradoxosomatidae) aus China. Sinozoologia 3: 35–38. (In Chinese, with German summary)
- 33. ZHANG Chong-zhou, ZHANG Fu-xiang (1985) Investigate medicinal centipedes in Chinese traditional Medicine. Journal of Chinese Medicinal Materials 6: 42. (In Chinese)
- 34. ZHANG Chong-zhou (1986) On the genus *Pratinus* and its two new species from China (Diplopoda: Paradoxosomatidae). Acta Zootaxonomica Sinica 11 (3): 253–257. (In Chinese, with English summary)
- 35. JIN Yi-lang, ZHANG Chong-zhou (1987) Historical evidences of centipedes used in Traditional Chinese Medicine. Chinese Journal of Modern Applied Pharmacy 4(6): 9–13. (In Chinese)
- 36. ZHANG Chong-zhou (1987) Medicinal centipede breeding biology. Science Press, Beijing. pp. 1–106. (In Chinese)
- 37. ZHANG Chong-zhou, CHEN Zhong-ping (1988) A preliminary study on a new record of the class Pauropoda (Myriapoda) from China. Sinozoologia 6: 39–54. (In Chinese, with English summary)
- 38. CHANG Nai-guang, ZHANG Chong-zhou (1989) A contribution to knowledge of the genus *Yunnanina* and a new species in Yunnan province (Diplopoda, Paradoxosomatidae). Acta Zootaxonomica Sinica 14 (4): 415–419. (In Chinese, with English summary)
- 39. ZHANG Chong-zhou, CHANG Nai-guang (1990) A new genus and new species of the family Harpagophoridae from Yunnan, China (Diplopoda: Spirostreptida). Acta Zootaxonomica Sinica 15(1): 32–35. (In Chinese, with English summary)
- 40. CHEN Jian-xiu, ZHANG Chong-zhou (1990) A cave-dwelling new species of the Diplopod genus *Epanerchodus* from Guizhou Province (Polydesmida: Polydesimidae). Acta Zootaxonomica Sinica 15(4): 406–409. (In Chinese, with English summary)
- 41. Al Yang, ZHANG Chong-zhou (1991) The origin and progress of Speleology. Chinese Bulletin of Life Sciences 3(5): 45–46. (In Chinese)
- 42. ZHANG Chong-zhou, ZHANG Fu-xiang, WANG Da-qing, GAO Bo-ming (1992) A survey on the medicinal centipede in Wuling Mountains. Chinese Journal of Zoology 27(1): 8–11. (In Chinese)
- 43. ZHANG Chong-zhou, WANG Da-qing (1992) Chilopoda, Diplopoda, Pauropoda and Symphyla. In: YIN Wenying (ed.) Subtropical Soil Animals of China. Science Press, Beijing, pp. 365–392. (In Chinese)
- 44. ZHANG Chong-zhou, WANG Da-qing (1993) Diplopoda in caves of Yunnan I. A study of new genera and species of the millipede family Doratodesmidae. In: SONG Lin-hua, TING Huai-yuan (eds.) Karst Landscape and Cave Tourism. China Environmental Science Press, Beijing, pp. 205–215. (In Chinese, with English summary).
- 45. ZHANG Chong-zhou (1993) Diplopoda from Yunnan caves II. Contribution to the study of a new cavernous taxon of the nematophoran millipeds (Diplopoda: Coelocheta: Callipodida). Proceedings of the XI International Congress Speleology, August 1993, Beijing. International Union of Speleology: 128–130. (In English, with Chinese summary)
- 46. MENG Wen-xin, ZHANG Chong-zhou (1993) A new troglobitic millipede, *Podoglyphiulus sinensis*, sp. nov. from Guizhou Province (Diplopoda, Spirostreptida, Cambalopsidae). Proceedings of the XI International Congress Speleology, August 1993, Beijing. International Union of Speleology: 130–131. (In English, with Chinese summary)
- 47. ZHANG Chong-zhou (1993) Small Myriapoda in soil from China I. A new julidan species *Anaulaciulus otigonopus* (Julida: Julidae). Acta Zootaxonomica Sinica 18 (1): 18–21. (In Chinese, with English summary)
- 48. ZHANG Chong-zhou, WANG Ke-qin (1995) A brief introduction of two medicinal scolopendrids. Chinese Journal of Zoology 30(4): 51–54. (In Chinese)
- 49. ZHANG Fan, ZHANG Chong-zhou (1995) A new troglobitic species of glomerid millipeds from Yunnan (Diplopoda, Giomeridae). Zoological Research 16(1): 17–21. (In Chinese, with English summary)

- 50. ZHANG Chong-zhou (1995) Small Myriapoda in soil from China II. A new genus and species of the family Doratodesmidae from Zhejiang Province (Diplopoda: Polydesmida). Acta Zootaxonomica Sinica 20 (4): 411–415. (In Chinese, with English summary)
- 51. ZHANG Chong-zhou (1995) Small Myriapoda in soil from China III. A new species of the milliped genus *Nanocondylodesmus* Zhang (Diplopoda: Polydesmida: Doratodesmidae). Acta Zootaxonomica Sinica 20 (4): 416–419. (In Chinese, with English summary)
- 52. ZHANG Chong-zhou (1996) Chilopoda: Lithobiidae. IN: WU Su-gong, FENG Zuo-jian (eds.) The Biology and Human Physiology in the Hoh Xil Region. Science Press, Beijing, pp. 244–251. (In Chinese, with English summary).
- 53. ZHANG Chong-zhou (1997) Diplopoda from Yunnan Caves III. A new genus *Angulifemur*, including two new species, of the Cave-dwelling Callipodid Millipedes (Diplopoda, Callipodida, Paracortinidae). Contributions from Tianjin Natural History Museum 14: 1–5. (In English, with Chinese summary)
- 54. ZHANG Chong-zhou, ZHANG Nai-guang (1997) An interesting new millipede, *Agaricogonopus acrotrifoliolatus* gen. et sp. nov., from the tropical rain-forest region of Xishuangbanna, Yunnan (Diplopoda: Spirostreptida: Harpagophoridae). Acta Zootaxonomica Sinica 22 (4): 349–352. (In English, with Chinese summary)
- 55. ZHANG Chong-zhou, WANG Da-qing, ZHANG Fu-xiang (1997) Two new genera and four new species of Diplopoda from Wuling Mountains area. In: SONG Da-xiang (ed). Invertebrates of Wuling Mountains Area, Southwestern China. Science Press, Beijing, pp. 508–522. (In Chinese, with English summary)
- 56. ZHANG Chong-zhou, WANG Ke-qin (1999) A new centipede, *Scolopendra negrocapitis* sp. nov. from Hubei Province, China (Chilopoda: Scolopendromorpha: Scolopendridae). Acta Zootaxonomica Sinica 24 (2): 136–137. (In English, with Chinese summary)
- 57. ZHANG Chong-zhou, CAO Yun, WANG Li-zhong, HUANG Zhu-jian (2000) Centipedes Breeding Technology. Jindun Publishing House, Beijing, 94 pp. (In Chinese)
  - \*Acta Zoologica Sinica is now known as CURRENT ZOOLOGY (www.currentzoology.org/)
    \*Acta Zootaxonomica Sinica is now known as ZOOLOGICAL SYSTEMATICS
    (http://www.zootax.com.cn/)