

## OTTO KRAUS 1930–2017

Professor Dr Otto Kraus, distinguished authority on zoological systematics, particularly of arachnids and myriapods, died on 24 October 2017, at the age of 87. Professor Kraus was born in Frankfurt am Main on 17 May 1930. His involvement in zoology began during his studies at the University of Frankfurt in the 1950s. He volunteered at the Senckenberg Museum, where he learnt a great deal about systematics and collections. So, after obtaining his PhD (on spiders and myriapods from El Salvador: Kraus 1954, 1955), he gained employment at that institution, in its newly established Arachnology Section (Grasshoff & Jäger 2005). From 1963 to 1969 he headed the section for invertebrates at the Senckenberg Museum and received his habilitation in zoology in 1965 on the biogeography of Myriapoda. In 1969, Professor Kraus moved to Hamburg to take up the position of director of the Zoological Institute and Zoological Museum of the University of Hamburg (he became emeritus in 1995), in which city he remained for the rest of his life.

As well as his museum work, Professor Kraus taught a wide range of course in zoology, including biodiversity, systematics, evolution, and biogeography, with an emphasis, of course, on arthropods. He became a prominent figure in the organization and dissemination of knowledge in zoology. For example, he edited the journals of the Naturwissenschaftlicher Verein in Hamburg (now in its 180th year), and was its president from 1970 to 1974. He used the journals to publish the proceedings of numerous conferences, many of which he organized. For example, the 3rd International Congress on Myriapodology was held in Hamburg in 1975 and its papers were published in *Abhandlungen und Verhandlungen des Naturwissenschaftlichen Vereins in Hamburg*. The 20th *Phylogenetische Symposium*, held in Hamburg in 1975 (theme: Co-evolution), was published as a special volume (Sonderband) of the society (Zwölfer & Kraus 1978), the 21st *Phylogenetische Symposium* in Göttingen 1976 (theme: Phylogeny of Arthropods) was published in the *Abhandlungen* (Kraus 1980), and *Zoologische Systematik in Mitteleuropa* was published as a Sonderband (Kraus 1976). Kraus was three times president of the Joachim-Jungius-Gesellschaft der Wissenschaften in Hamburg: 1978–1982, 1996–1997, and 1998–1999.

Professor Kraus served as a commissioner 1963–1995 and as president 1989–1995 of the International Commission on Zoological Nomenclature (ICZN), after which he served as a trustee of the International Trust for Zoological Nomenclature. During his time at ICZN, he oversaw the 4th edition of the Code (ICZN 1999), and was the driving force behind translating it into German (Kraus 2000).

Otto Kraus was involved in the organization of European arachnology from its beginnings. Following an initial meeting of arachnologists at the German Zoological Society in Bonn in 1960, a second meeting was organized by Otto Kraus in Saarbrücken in 1961, which attracted arachnologists from nearby France and other countries. Following a meeting between Otto Kraus and Max Vachon in Frankfurt in 1964 (see picture), the third meeting of this burgeoning society was also organized by Kraus, in Frankfurt in 1965,



Photo: R. Sawatzki

under the title *III. Kongreß Europäischer Arachnologen*. At that meeting, Professor Kraus was elected President of the newly formed Centre International de Documentation Arachnologique and served for three years. From these beginnings, the International Society of Arachnology eventually arose (read the full history in Kraus 1999).

Professor Kraus has been honoured by a number of organizations, including nomination as a corresponding member of the Senckenberg Gesellschaft für Naturforschung in 1970. He was made an honorary member of the British Arachnological Society on the occasion of its 40th Anniversary Meeting at Flatford Mill in 1999 (Dalingwater 1999). In 2001 he became an honorary member of the International Society of Arachnology at its 15th Congress in Badplaas, South Africa. In 2006 he was appointed to the Akademie Gemeinnütziger Wissenschaften zu Erfurt, and was awarded the Ehrenbrief by that society in 2011. In 2010 he became an honorary member of the Arachnologische Gesellschaft. He was also an honorary member of



Max Vachon (left) and Otto Kraus meeting in Frankfurt am Main in 1964.

the Naturwissenschaftlicher Verein in Hamburg, the International Society of Myriapodology, and the Societas pro Fauna et Flora Fennica (Finland).

Professor Kraus's scientific work within arachnology and myriapodology ranged widely across systematics, morphology, evolution, and beyond. We remember him particularly for his insightful contributions to congress proceedings, usually on fundamental problems in these arthropod groups. For example, he contributed to discussions of the so-called Cribellate Problem: is the cribellum a primitive character which has been lost in many spiders, or does it define a large group of Araneae (Baum 1970; Kraus & Baum 1973). For the VII International Congress of Arachnology, Exeter 1977, he contributed a discussion on *Liphistius* and the evolution of spider genitalia (Kraus 1978). Together with his wife, Margarete, he published a brief summary of their work on *Stegodyphus* for the XI International Congress of Arachnology, Turku 1989 (Kraus & Kraus 1989, 1990), and a thought-provoking discussion on the evolution of eyes and chelicerae in spiders for the XII International Congress of Arachnology, Brisbane 1992 (Kraus & Kraus 1993). The British Arachnological Society hosted the 17th European Colloquium of Arachnology in Edinburgh in 1997, at which Professor Kraus gave an invited presentation on phylogenetic systematics versus cladistic techniques (Kraus 1998). His work was not restricted to spiders, however, and he contributed a paper on Amblypygi to the IV International Congress of Arachnology, Paris 1968 (Kraus 1969), and a seminal work on Palaeozoic Diplopoda to the 2nd International Congress of Myriapodology, Manchester 1972 (Kraus 1974).

In addition to his many edited works mentioned above, Otto Kraus contributed to the famous German encyclopaedia *Grzimeks Tierleben* (Kraus 1970, 1971), and translated Ernst Mayr's 1969 *Principles of Systematic Zoology* into German (Mayr 1975). He was also active against creationism, and edited the volume *Evolutionstheorie und Kreationismus—ein Gegensatz* (Kraus 2009). From 1977 to 1980 he was editor of the journal *Zoomorphology*. Among his approximately 190 publications, he wrote not only on his favourite Araneae and Diplopoda (e.g. Kraus 1966), but also on other arachnid orders, Chilopoda, insects, fossils (e.g. Kraus & Brauckmann 2003), and even molluscs (e.g. Kraus 1952) and mastodons (Lehmann & Kraus 1994).

As Vertrauensdozent of the Studienstiftung des Deutschen Volkes, Otto Kraus supported and advised many high-flying students. He was always generously helpful when one had questions about systematics or nomenclature. He was an advocate of traditional scientific illustration and published a short note about it (Kraus 1968). When visiting his home, one received not only a tour through some very interesting memorabilia but also great hospitality and superb meals served by his wife.

Professor Kraus found his final rest in Frankfurt in the family grave. He is survived by his wife, Dr Margarete Kraus, who shared his life for 62 years, and their daughter Dr Beate Kraus.

Paul Selden & Peter Jäger

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