

Reinhart Schuster (1930-2023) - Obituary

Günther Krisper^{ID^a}, Ernst Ebermann^a, Günther Raspotnig^{ID^a}, Julia Baumann^{ID^a}, Sylvia Schäffer^{ID^a}, Tobias Pfingstl^{ID^a}

^a Institute of Biology, University of Graz, Universitaetsplatz 2, 8010 Graz, Austria.

Obituary



Figure 1 Reinhart Schuster on one of his last hiking trips in the Alps (2020).

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Corresponding author
Tobias Pfingstl^{ID}:
tobias.pfingstl@uni-graz.at

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On 4 June 2023, Reinhart Schuster (Fig. 1), Professor Emeritus of Karl-Franzens-University Graz, died peacefully in his sleep at the age of 92. He was a pioneer in soil zoological research studying different groups, as for example collembolans, dipterans, myriapods and mites. In addition, he was a world leading specialist for oribatid mites. He lived a fulfilling live, rich in adventurous expeditions and scientific discoveries. He was a very friendly and open-minded person who will be missed by many of us.

Reinhart Schuster was born on 24.08.1930 in Graz, Austria. Being fascinated by beasts and bugs and every living thing from a young age, it was only natural that he enrolled for the study of Biology (with focus on Zoology) at the University of Graz in 1949. During his studies, he already came in contact with the eight-legged animals that would be the center of attention for

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all of his life, and he obtained his degree of Dr. phil. in 1954 through writing his dissertation about the role of oribatid mites in decomposition processes in the soil (“Der Anteil der Oribatiden an den Zersetzungsvorgängen im Boden”, supervised by o. Univ.-Prof. Dr. Wilhelm Kühnelt). From 1955 to 1956, Reinhart Schuster worked for several months as assistant at the Institute of Zoology II at the University of Vienna and made research trips to the Laboratoire Arago in Banyuls-sur-mer, France, the Station Marine d’Endoume in Marseille, in France, the Max-Planck-Institut für Meeresbiologie in Wilhelmshaven, Germany and the Biologische Station in Neusiedl am See, Austria. During those research trips, he studied the arthropod fauna of the (mostly) marine littoral zone and published his first work on this topic, which would be of great importance for him all of his life, in 1956: “The rim of calcareous algae at Côte des Albères as habitat for small terricol animals” (Das Kalkalgen-Trottoir an der Côte des Albères als Lebensraum terricoler Kleintiere; *Vie et Milieu* 7: 242-257). Reinhart Schuster spent the next five years as assistant at the Institute for Zoology in Graz and used this time to present his “Habilitation” (postdoctoral lecture qualification) with the title “The marine littoral as habitat for terrestrial small arthropods” (Das marine Litoral als Lebensraum terrestrischer Kleinarthropoden; *Int. Revue ges. Hydrobiol.* 47: 359-412) in 1962 under the supervision of o. Univ.-Prof. Dr. Erich Reisinger.

The next important step in his career was his appointment as “Diätendozent” (an academic title conferred at universities in mostly German-speaking countries) at the Zoologische Institut der Technischen Hochschule Braunschweig in Germany under o. Prof. Dr. Friedrich Schaller. As Diätendozent, Reinhart Schuster was in charge of fundamental parts of teaching: he was responsible for theoretical lectures on special zoology and animal geography, for classification exercises and an arthropod seminar, and for classes on marine biology, including field trips to Rovinj, Croatia, and Helgoland, Germany. He also (co-)directed theses and dissertations, especially with regard to morphology, systematics, ecology and ethology. It comes as no surprise to anybody who knew him and his kind and humorous manner that he enjoyed his teaching responsibilities and in turn became very popular with the students.

Friedrich Schaller nominated Reinhart Schuster for professorship in 1966, but as other German zoologists also had gotten interested in him, he followed the call to the Christian-Albrechts-Universität Kiel where he succeeded Prof. Dr. h.c. Adolf Remane as chaired professor of zoology and director of the Department of General Zoology and Zoological Museum in 1967 (Figure 2A). The department at that time, although having high scientific standards, was in an obsolete state regarding rooms and equipment. Improving this situation was one of his first efforts in his time in Kiel. He reorganized structures within the institute, worked out new programs of study and introduced new, specific classes like “Introduction to Arachnology”. As new assistants and doctoral students joined, Reinhart Schuster could establish his own working group focusing on soil zoology, littoral biology and acarology. Even after his retirement, he often spoke fondly of his “Kieler Truppe”, his doctoral students in Kiel (G. Alberti, H. Witte, R. Ehrnsberger, G. Theis and St. Woas). Unfortunately, Reinhart’s stay in Kiel was overshadowed by a radical political climate that developed at that time at German universities and which made teaching very difficult. For example, lectures were heavily disturbed by so-called sit ins, and scientific material had to be removed from the institute to avoid it being destroyed by progressive students. These troubles probably also made it easier for him to leave Kiel when he received the offer to return to Graz after a relatively short but very fruitful period in Kiel, where he had made an impact in science as well as in administration.

In February 1971, Reinhart Schuster returned to his hometown Graz, to assume office of a full professor of Zoology at the University of Graz. His chair should last for 27 years, until his retirement (“emeritus status”) in 1998. During these years, Reinhart Schuster established a novel direction of research and teaching at the institute in Graz, not only on soil zoology but with a particular focus on Acarology. A number of lectures and courses on soil zoological topics were introduced, and well perceived by the students. Reinhart Schuster was a gifted teacher: besides outstanding rhetorical skills, he had the ability to present complex issues in an easy-understandable way, always classing particular topics into a higher-level assembly and



Figure 2 Reinhart Schuster at different stages of his life. A. Taking a walk on the coast of Kiel (1967) where he had his first professorship. B. Fulfilling his duties as dean of the Faculty of Philosophy in Graz (1974). C. Visiting the 'Tiergarten Schönbrunn' in Vienna (1983). D. Attending the 14th International Congress of Acarology in Kyoto Japan (2014), meeting his good friend Prof. Jun-ichi Aoki. E. Group photo (2017) with some of his 'scientific offspring' from Graz (left to right; first row: Ernst Ebermann, Reinhart Schuster, Günther Krisper; second row: Günther Raspotnig, Tobias Pfingstl, Andrea Lienhard, Sylvia Schäffer; third row: Kathrin Kuess, Michaela Bodner, Michaela Sebernegg, Julia Baumann).

attaching importance to understanding biological intercorrelations. Remarkably, he had the ability to fascinate students by his topics, drawing large crowds of students to deeper studies on soil zoology and Acarology and to diploma- and doctoral theses under his supervision. At the same time, Reinhart Schuster intensified his own research on Oribatida, focusing on the distribution of species in Austria and neighboring countries, species descriptions, and morphological and ecological studies. In the later 1970s and 1980s Reinhart Schuster established a second generation of scientific off-spring (following his “Kieler group”) and a hard-core of assistants and co-workers permanently worked under his guidance, in particular to mention his long-term associates Ernst Ebermann (working on Scutacaridae) and Günther Krisper (working on Oribatida). Beginning with the mid-1980s, a third generation of scientific off-spring arose: Even though mainly working on Acarology, the range of his scientific topics, also those for diploma theses, was wide, including topics on the taxonomy, morphology, and ecology of various soil arthropods such as revisions of harvestmen taxa (by C. Komposch), spiders (by C. Kropf, E. Jantscher), and diverse ecological and taxonomic studies on different insect orders. Reinhart Schuster’s scientific interest also included highly modern and specific biological questions, for example mechanistic studies on the jumping ability of oribatids (conducted by G. Krisper), on oribatid phylogeny (by G. Haumann), ontogeny (by T. Pfingstl), histology of organ systems and chemical ecology of oribatids (by G. Raspotnig).

Many of these investigations were pioneering, breaking new scientific ground in Acarology. In 1998, at the age of 68, Reinhart Schuster retired from his position as an ordinary of the Institute of Zoology in Graz, but stayed active as “Professor emeritus”, carrying on working in a study at the Zoological Institute, and very actively pursuing his teaching on soil zoology and ecology but now also focusing on particular research projects.

This latter engagement resulted in a scientific long-term achievement to unravel the mysterious “oil glands” of oribatids – large opisthosomal glands that characterize the majority of Oribatida and that produce species-specific semiochemicals, pheromones and allomones, but were nearly unstudied at this time. The “oil glands of Oribatida” finally arose as a large research project funded by the Austrian Science Fund (the central funding agency for basic research in Austria) and headed by Reinhart Schuster, continuing the doctoral studies of one of his fellow researchers, G. Raspotnig (who, together with G. Krisper, conducted the project).

Reinhart Schuster still remained active even after the finalization of this project, continuing to attend acarological congresses all over the world (Figure 2D) where he was well respected and always welcome. His last years at the Institute were characterized by his open-minded, friendly manner, his fatherly advices and his open ear for every sort of problem. He did not lose his sharp mind and his fine sense of humor, even in times of declining health. Reinhart Schuster passed away on 4th of June 2023, at the age of 92. His scientific heritage not only comprises 119 publications (mainly on Acarology, including two edited books) but also multiple new generations of enthusiastic acarologists - Reinhart Schuster’s scientific “offspring” - that carry on studying the fascinating world of mites.

Appointments

Dean of the Faculty of Philosophy, Karl-Franzens-University, Graz, 1973-1974
 President of the 4th International Congress of Acarology (Saalfelden, Austria), 1974
 President of the Naturwissenschaftlicher Verein für Steiermark, 1972-1975 and 1993-1996
 Member of the International Commission of Zoological Nomenclature, from 1986 onward
 President of the European Association of Acarologists (EURAAC), 1987-1988
 Board Member of the Deutsche Zoologische Gesellschaft (DZG), 1989-1990
 Executive member of the International Commission of Acarology (ICA), 1986-1994
 President of the Österreichische Entomologische Gesellschaft, 1993-1996
 Honorary president of the Österreichische Entomologische Gesellschaft
 Honorary Lifetime Member of the International Congresses of Acarology (1998)

ORCID

Günther Krisper  <https://orcid.org/0000-0002-4073-4821>
 Günther Raspotnig  <https://orcid.org/0000-0002-6947-9406>
 Julia Baumann  <https://orcid.org/0000-0002-4486-4121>
 Sylvia Schäffer  <https://orcid.org/0000-0001-6325-1497>
 Tobias Pfingstl  <https://orcid.org/0000-0002-0778-8051>

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