

Obituary

Dr Walter Hüther (1931-2019)

Peter Decker^{1*}, Bärbel Benz², Karsten Hannig³, Birgit Hüther⁴, Michael Hüther⁴

¹ Senckenberg Museum of Natural History Görlitz, Am Museum 1, 02826 Görlitz, Germany

² Judengasse 12, 66657 Illingen, Germany

³ Bismarckstr. 5, 45731 Waltrop, Germany

⁴ Lupinenweg 6, 51375 Leverkusen, Germany

* Corresponding author, E-mail: peter.decker@senckenberg.de

Received 10 March 2020 | Accepted 11 March 2020

Published online at www.soil-organisms.de 26 May 2020

DOI 10.25674/so92iss1pp1

Dr Walter Hüther, soil zoologist, entomologist and university lecturer, died on 11 May 2019, aged 87 years, in Bochum. Walter Hüther (Figs. 1 and 2) was born on 22 August 1931 in Homburg (Saarland), Germany, as the fourth of five children. He became interested in zoology already as a pupil, first at the elementary school and later at the grammar school for natural sciences in Zweibrücken, and this topic was to accompany him throughout his life. With his school teacher and mentor, headmaster Dr Otto Strebel, he maintained scientific contact until his death. In his honour Hüther named two invertebrate species, the springtail *Tetracanthella strebeli* Hüther, 1969, and for Strebel's 80th birthday the pauropod *Brachypauropus strebeli* Hüther, 1971.



Figure 1. Dr Walter Hüther at the GEO Day of Biological Diversity of the Bochumer Botanischer Verein e. V. in the Bövinghauser Bachtal (June 2007, Bochum/Dortmund, North Rhine-Westphalia). Photo: Dr Armin Jagel.

1951, he passed his Abitur (comparable to A levels) and enrolled to study biology at the Johannes Gutenberg University Mainz, where he first took his diploma preliminary examination in 1954, and completed his studies in 1960 with a doctorate in zoology with the grade „magna cum laude“ under the supervision of Professor Friedrich Schaller. In the context of his doctoral thesis he dealt with the topic „Ökologische Untersuchungen über die Fauna pfälzischer Weinbergsböden: mit besonderer Berücksichtigung der Collembolen und Milben“ [Ecological studies on the fauna of Palatinate vineyard soils with special consideration of collembolans and mites] (Hüther 1960).

A research grant from the German Research Foundation (DFG) took him from 1960 to 1963 to the Zoological Institute of the Technical University of Braunschweig, where he worked, again under the direction of Professor Schaller, mainly on collembolans, myriapods (with a focus on the pauropods) and locusts. From 1963 to 1969 he worked as a research assistant at the Zoological Institute of the University of Saarbrücken, where he worked, among other things, as scientific assistant (1963-1967) of Professor Gustaf de Lattin, whose entomological focus was on Lepidoptera. During his time at the University of Saarbrücken, he was able to continue to devote himself to his beloved soil organisms, although he was also entrusted with determination, preparation and large scale practical courses, collection management and excursions. Thus, in 1964, with the support of the German Ibero-America Foundation and the Conselho de Pesquisas, he accompanied a research trip with Professor Stefan Vogel from the University of Mainz to the northeast of Brazil (including Serra do Navio and Manaus). In 1970, Walter Hüther began his long and final

professional career at the Ruhr-University Bochum, where he worked until his retirement in 1996. In January 1970, he joined the collections of the Department of Biology, where he was instrumental in establishing the entomology department. Subsequently, he worked in the Department of Behavioural Science from 1982 and in the Department of Special Zoology (now Animal Ecology, Evolution and Biodiversity) from 1985 until his retirement.

Walter Hüther was in contact and scientific exchange with other colleagues from all over the world, such as Paul A. Remy, Dr Hermann Gisin and Professor Wolfram Dunger, and became one of the first members of the International Society for Myriapodology. In 1972, he participated in the Second International Congress of Myriapodology in Manchester and presented his work on the ecology of pauropods (Hüther 1974), one of the extremely rare contributions to this animal group in the context of myriapodological congresses. In addition, he was a member of the Soil Zoological Society. But he also brought in his taxonomic expertise to support local citizen science surveys, such as the GEO Day of Biological Diversity of the Bochumer Botanischer Verein e. V.



Figure 2. Dr Walter Hüther at the GEO Day of Biological Diversity of the Bochumer Botanischer Verein e. V. at the Kemnader Stausee (August 2014, near Bochum, North Rhine-Westphalia). Photo: Simon Wiggen.

The third author of the present obituary met Dr Walter Hüther during his biology studies as an entomologist of the „old school“ with extensive zoological knowledge and as a quiet and very popular university lecturer. With patience and didactic skill, he was able to introduce the students to the diversity and ecology of „his little animals“ in all details, both in the course rooms and on excursions.

In addition, he also showed great interest in various sampling methods and preparation techniques, especially for microarthropods. For example, an embedding medium developed by him (Hüther 1993) based on gum-chloral and phenol, found its way into soil zoological textbooks as the so-called “Hüther mixture” (Dunger & Fiedler 1997).

In the course of his taxonomic research, Dr Walter Hüther discovered and newly described 24 taxa from the Pauropoda (one genus and eight species), Collembola (one genus and 13 species) and Protura (one species):

Class Pauropoda

Rosettauropus Hüther, 1968

Rosettauropus temporalis Hüther, 1968

Fagepauropus breviseta Hüther, 1971a

Brachypauropus strebeli Hüther, 1971a

Cauvetauropus rhenanus Hüther, 1971a

Decapauropus viticolus Hüther, 1975a

Decapauropus cursor Hüther, 1982a

Decapauropus trichosphaera Hüther, 1982a

Decapauropus unicus Hüther, 1982a

Order Collembola

Willemia buddenbrocki Hüther, 1959

Isotoma germanica Hüther & Winter, 1961

Willemia brevispina Hüther, 1962a

Anurida brunsvigiensis Hüther, 1964

Tetracanthella hydrophila Hüther, 1964

Rastriopes interpositus Hüther, 1967b

Yosiiella Hüther, 1967a

Yosiiella mira Hüther, 1967a

Acherontiella palatinensis Hüther, 1969

Pseudosinella wahlgreni Hüther, 1969

Tetracanthella strebeli Hüther, 1969

Lepidocyrtus weidneri Hüther, 1971b

Heterosminthurus chaetocephalus Hüther, 1971c

Acherontides peruensis Hüther, 1975b

Order Protura

Gracilentulus tuxeni Nosek & Hüther, 1974

To honour his taxonomic merits for science, eleven soil arthropod species were named after him:

Class Pauropoda

Trachypauropus huetheri Hasenhütl, 1984

Order Collembola

Tullbergia huetheri da Gama, 1968

Pseudosinella huetheri Stomp, 1971

Stenognathriopes huetheri Betsch & Lasebikan, 1979

Isotoma huetheri Dunger, 1982

Acherontides huetheri Deharveng & Diaz, 1984

Acherongia huetheri Fjellberg, 1992

Order Protura

Berberentulus huetheri Nosek, 1973

Brasilentulus huetheri Nosek, 1973

Eosentomon huetheri Nosek, 1973

Order Archaeognatha

Machilis huetheri Mendes, 1980

In addition, he published several faunistic articles (see his list of publications at the end of the publication).

His extensive insect collection comprises 85 insect boxes, most of which were in good condition and were handed over to the Entomological Collection of the Zentrum für Biodokumentation of the Saarland (Werno in litt.) in November 2019. The collection contains the following insect orders: Lepidoptera (11 boxes), Neuroptera (2 boxes), Diptera (18 boxes), Hymenoptera (3 boxes), Orthoptera (34 boxes), Coleoptera (12 boxes) as well as four „mixed“ boxes with various insect orders. The groups of organisms in an ethanol collection had to be discarded due to dehydration, whereas the whereabouts of his microscope slide collection remain unclear for the time being.

The type specimens of *Lepidocyrtus weidneri* (Hüther, 1971) are stored in the collections of the Zoological Museum in Hamburg (Weidner 1977).

Walter Hüther's private passion was music; he played the cello in various formations both with his family in Leverkusen and in his home town of Bochum. Nevertheless, he was also a great music lover as a listener and took an active part in the music scene in Bochum and neighbouring cities, enjoying concerts and festivals. Besides his interest in astronomy - for example, he travelled to Africa for a solar eclipse observation - he was also an enthusiastic nature photographer with a focus on his study objects (insects and soil arthropods) as well as landscape photography.

Acknowledgement

For valuable information and permission to use photos we thank Sabine Adler, Ulrich Burkhardt, Armin Jagel, Simone Jannett, M. Lillig, Gabi Strieso, A. Werno, Simon Wiggen, Karin Voigtländer, and Zentrum für Biodokumentation.

Call for cooperation

Since Dr Walter Hüther lived a very secluded life as a researcher, especially in the last two decades of his research life, and, to the best of his knowledge, did not keep his own list of publications, the authors of this obituary would be very pleased to receive additions, corrections and/or further information (e.g. whereabouts of microslides and types in the collection) from his colleagues.

References

- Dunger, H., Fiedler, H. J. (1997): Methoden der Bodenbiologie. – 2. Auflage, Gustav Fischer Verlag Jena: 539 pp.
- Weidner, H. (1977): Die Entomologischen Sammlungen des Zoologischen Instituts und Zoologischen Museums der Universität Hamburg, XIV. (letzter) Teil, Insecta XI. – Mitteilungen aus dem Hamburgischen Zoologischen Museum und Institut 74: 77–138.
- Hüther, W. (1959a): *Willemia budenbrocki* n. sp., und zur Chaetotaxie von *W. persimilis* Bonet 1945 (Collembola). – Senckenbergiana biologica 40 (3/4): 173–179.
- Hüther, W. (1959b): Zur Ernährung der Pauropoden. – Die Naturwissenschaften 46 (19): 563–564 [doi.org/10.1007/BF00631300].
- Hüther, W. (1959c): Beitrag zur Kenntnis der pfälzischen Geradflügler. – Mitteilungen der POLLICHIA 6: 169–179.
- Hüther, W. (1960): Ökologische Untersuchungen über die Fauna pfälzischer Weinbergsböden : mit besonderer Berücksichtigung der Collembolen und Milben. – Doctoral thesis, Johannes Gutenberg-Universität Mainz: 173 pp.
- Hüther, W. (1961): Ökologische Untersuchungen über die Fauna pfälzischer Weinbergsböden mit besonderer Berücksichtigung der Collembolen und Milben. – Zoologische Jahrbücher, Abteilung Systematik und Ökologie 89: 243–368.

Publication list of Walter Hüther

- Hüther, W. & C. Winter (1961): Eine neue Isotomide aus dem Harz (Ins., Collembola). – *Senckenbergiana biologica* 42 (5/6): 459–462.
- Hüther, W. (1962a): Beitrag zur Gattung *Willemia* Börner (Collembola). – *Beiträge zur Entomologie* 12: 511–526.
- Hüther, W. (1962b): Beiträge zur Kenntnis der Collembolenfauna des Sudans. I. Troglopedetina. – *Senckenbergiana biologica* 43 (3): 219–225.
- Hüther, W. (1963): Beiträge zur Kenntnis der neotropischen Collembolenfauna. II. Arrhopalitini. – *Senckenbergiana biologica* 44 (6): 519–522.
- Hüther, W. (1964a): Die systematische Stellung von *Mackenziella psocoides* Hammer (Collembola). – *Zoologischer Anzeiger* 173 (2): 119–126.
- Hüther, W. (1964b): Zur Kenntnis der deutschen Collembolen I. – *Zoologischer Anzeiger* 173 (4): 289–298.
- Hüther, W. (1965a): Wiederbeschreibung von *Dicyrtomina rufescens* (Reuter, 1890), nebst einigen allgemeinen taxonomischen Bemerkungen (Collembola). – *Notulae Entomologicae* 45 (2): 45–52.
- Hüther, W. (1965b): Über die Dipluren und Proturen der Pfalz. – *Pfälzer Heimat* 16: 95–98.
- Hüther, W. (1966): Besiedlungsdichte und Verteilung der Bodenfauna in Abhängigkeit von Regen- und Trockenzeit in El Salvador. – *Entomologische Zeitschrift* 16: 177–182.
- Hüther, W. (1967a): Eine neue Anurophorinen-Gattung aus Nordost-Brasilien. – *Senckenbergiana biologica* 48 (3): 169–173.
- Hüther, W. (1967b): Beiträge zur Kenntnis der Collembolenfauna des Sudans. II. Allgemeiner Teil und Symphypleona. – *Senckenbergiana biologica* 48 (4): 221–267.
- Hüther, W. (1968): Erstnachweis der Pauropoda Hexamerocerata für Südamerika, mit Beschreibung einer neuen Art. – *Revue d'Écologie et de Biologie du Sol* 5 (3): 561–567
- Hüther, W. (1969a): Über einige bemerkenswerte Ur-Insekten aus der Pfalz und benachbarter Gebiete (Protura, Diplura, Collembola). – *Mitteilungen der POLLICHIA* 16: 135–148.
- Hüther, W. (1969b): Wiederbeschreibung einiger Collembolen-Arten Börners nach den Typen. – *Beiträge zur Entomologie* 19 (1-2): 49–62.
- Hüther, W. (1970): Über einige Collembolen von den Kanarischen Inseln. – *Commentationes Biologicae Societas Scientiarum Fennica* 31: 1–11.
- Hüther, W. (1971a): Zwei interessante Pauropoden aus dem Oberrheingebiet. – *Mitteilungen der POLLICHIA*, Reihe III 18: 170–177.
- Hüther, W. (1971b): Collembolen von einem Hamburger Müllplatz. – *Entomologische Mitteilungen aus dem Zoologischen Museum Hamburg* 4 (72): 157–165.
- Hüther, W. (1971c): Ein neuer Heterosminthurus aus Nord-Deutschland (Collembola). – *Senckenbergiana biologica* 52: 257–261.
- Hüther, W. (1974): Zur Bionomie mitteleuropäischer Pauropoden. – In: Blower, G. J. (ed): *Second International Congress of Myriapodology. – Symposia of the Zoological Society of London* 32: 411–421.
- Nosek, J. & W. Hüther (1974): *Gracilentulus tuxerii*, a new species of Protura from Brazil. – *Revue Suisse de Zoologie* 81: 53–55.
- Hüther, W. (1975a): Ein neuer *Decapauropus* aus der Pfalz. – *Revue d'Écologie et de Biologie du Sol* 12 (2): 487–491.
- Hüther, W. (1975b): Ein neuer *Acherontides* aus Peru. – *Senckenbergiana biologica* 56 (4-6): 283–288.
- Hüther, W. (1982a): Symphylen und Pauropoden des Bausenbergs. – *Decheniana*, Beihefte 27: 56–75.
- Hüther, W. (1982b): Übersicht über die Collembolen des Bausenbergs. – *Decheniana*, Beihefte 27: 87–99.
- Hüther, W. (1983a): Chätotaxie der Gattung *Troglopedetina* Delmare-Deboutteville 1945 (Insecta: Collembola: Entomobryoidea). – *Senckenbergiana biologica* 63 (1-2): 65–72.
- Hüther, W. (1983b): Collembolen-Populationen brasilianischer Regenwälder und ihre Beeinflussung durch den Menschen. – *Pedobiologia* 25 (5): 317–323.
- Hüther, W. (1985): Verbreitung und Vorkommen einiger Pauropodenarten im Brasilianischen Amazonas-Gebiet. – In: Ellis, W. N., Jeekel, C. A. W. & F. F. J. M Pieters (eds): *Proceedings of the 6th International Congress of Myriapodology*. Amsterdam, 12-17 April 1984. – *Bijdragen tot de Dierkunde* 55 (1): 95–99.
- Hüther, W. (1986): New aspects in taxonomy of *Lepidocyrtus* (Collembola). – In: Dallai, R. (ed): *2nd International Seminar on Apterygota*. – University of Siena: 61–65.
- Hüther, W. (1993): Sammel- und Präparationsmethoden für Bodenarthropoden. – *Abhandlungen und Berichte des Naturkundemuseums Görlitz* 66 (6): 1–11.
- Hüther, W. (2009): Die Springschwänze des Naturschutzgebiets Gronenborner Teiche in Leverkusen (Insecta, Collembola). – *Jahresberichte des Naturwissenschaftlichen Vereins in Wuppertal* 61: 125–144.
- Hüther, W. & H. Kinkler (2013): Zwei wenig bekannte Gruppen der Tausendfüßer, „Wenigfüßer“ und „Zwergfüßer“ des Naturschutzgebiets Gronenborner Teiche in Leverkusen (Myriapoda: Pauropoda, Symphyla). – *Decheniana* 166: 51–54.