

Zitteliana

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of Palaeontology and Geobiology

Series A/Reihe A
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für Paläontologie und Geologie

48/49



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Cover illustration: Cover illustration: The floating plant *Cobbania corrugata* (LESQUEREAUX) STOCKEY et al. from the Upper Cretaceous of North America inspected by an *Ornithomimus* dinosaur. The quarry in the Dinosaur Provincial Park, Alberta (Canada), produced numerous complete specimens of this plant and the most complete skeleton of the dinosaur (Reconstruction by Marjorie LEGIN). For details, see BOGNER, J.: The free-floating Aroids (Araceae) – living and fossil, pp. 113–128 in this issue.

Umschlagbild: Umschlagbild: Ein *Ornithomimus* Dinosaurier betrachtet die Schwimmmpflanze *Cobbania corrugata* (LESQUEREAUX) STOCKEY et al. aus der Oberkreide Nordamerikas. Im Steinbruch des Dinosaur Provincial Park, Alberta (Kanada), wurden mehrere komplett Exemplare dieser Pflanze und ein nahezu vollständiges Skelett des Dinosauriers gefunden (Rekonstruktion Marjorie LEGIN). Für weitere Informationen siehe BOGNER, J.: The free-floating Aroids (Araceae) – living and fossil, S. 113–128 in diesem Heft.

In memoriam † Prof. Dr. Volker Fahlbusch

February 22nd 1934 – October 30th 2008



On October 30th 2008 Volker FAHLBUSCH, retired professor for Vertebrate Palaeontology at the Ludwig-Maximilians-University in Munich, passed away at the age of 74. In spite of his deteriorating health he regularly came to his office at the University during the last few years of his life to keep in touch with science and his colleagues. In November 2007, a fall from the stone stairs leading to his office resulted in serious head injuries from which he never recovered. His condition forced him into a wheelchair and kept him away from his beloved science and normal life. Nevertheless, his death came suddenly, and the painful loss of a highly respected teacher, colleague and friend was widely mourned. Volker FAHLBUSCH was appreciated as a scientist, not only by his colleagues at Munich (Faculty of Geosciences of the University and Bavarian State Collection for Palaeontology and Geology), but also within

the global scientific community of palaeontologists. The only comfort in this grief situation is to know that death released him from his severe sufferings.

Volker FAHLBUSCH represented vertebrate palaeontology at the Ludwig-Maximilians-University at Munich for more than 40 years, and sedulously promoted and aggrandized the science that he so much loved. For many years he represented an integral part in the shaping of palaeontology in Germany because of his active participation in numerous scientific committees and boards. For example, he served as a referee for the German Science Foundation (he wrote over 500 reviews in 20 years), as the secretary of the Subcommission on Tertiary Stratigraphy, as a member of the advisory board for the Paläontologische Gesellschaft, as a member of the Editorial Committee of the Senckenberg Museum in Frankfurt/Main, as a member of the

scientific board for the Messel fossil Lagerstätte, as a member of the referee committee for the scientific board to evaluate Institutes for the „Blaue Liste”, and as a member of the advisory board for the NOW database.

In occasional narratives about himself, Volker FAHLBUSCH usually emphasized a couple of pathbreaking events in his life. He was born on February 22nd 1934 in Celle (Germany) as the third of four children. Despite the terrible incidents during World War II, he always felt to have spent a peaceful childhood and adolescence in his parents’ home in Celle. At the time he graduated from High School with the „Abitur”, Volker FAHLBUSCH had not yet developed an exact idea about a professional career. On his shortlist he pondered to study classical philology, theology, law or geology. Finally, during an internship at the Mobile Oil Petroleum Company, he decided to go for geology, and subsequently started university studies in geology at the University of Göttingen. With this choice he made himself an „outsider” within his medically oriented family (his father and two brothers worked as physicians, the mother as an x-ray technician, and the sister as a pharmacist).

Following the successful completion of the Vordiplom (undergraduate exam) in 1957, he intended to become a petroleum geologist and, as a result, enrolled at the University of Munich, which at that time closely collaborated with „Mobile Oil“. In 1960 he completed a geological-palaeontological thesis on Mesozoic rocks and fossils from the Northern Calcareous Alps and received his Diploma (graduate degree).

As a student at Munich University Volker FAHLBUSCH came into close contact with Prof. Richard DEHM, the then chairman of the Institute and head of the Bavarian State Collection of Palaeontology and Historical Geology. This encounter deeply influenced Volker FAHLBUSCH’s future career. Richard DEHM kindled his interest for mammal palaeontology and encouraged him to study intraspecific variability in fossil hamsters. At that time, the only scientific studies focusing on fossil hamsters were the monographs by SCHAUB (1925) and STEHLIN & SCHAUB (1951). Thus, the cricetids were in urgent need of a thorough revision. By including large numbers of new fossils, Volker FAHLBUSCH significantly contributed to hamster research. The material used in his analyses consisted of more than 1000 teeth from 17 stratified localities within the Upper Freshwater Molasse of Bavaria, partly collected by himself. In 1964, he was granted a PhD for the thesis „Die Cricetiden (Mamm.) der Oberen Süßwasser-Molasse Bayerns”, which is today widely referred to as a benchmark study in small mammal palaeontology.

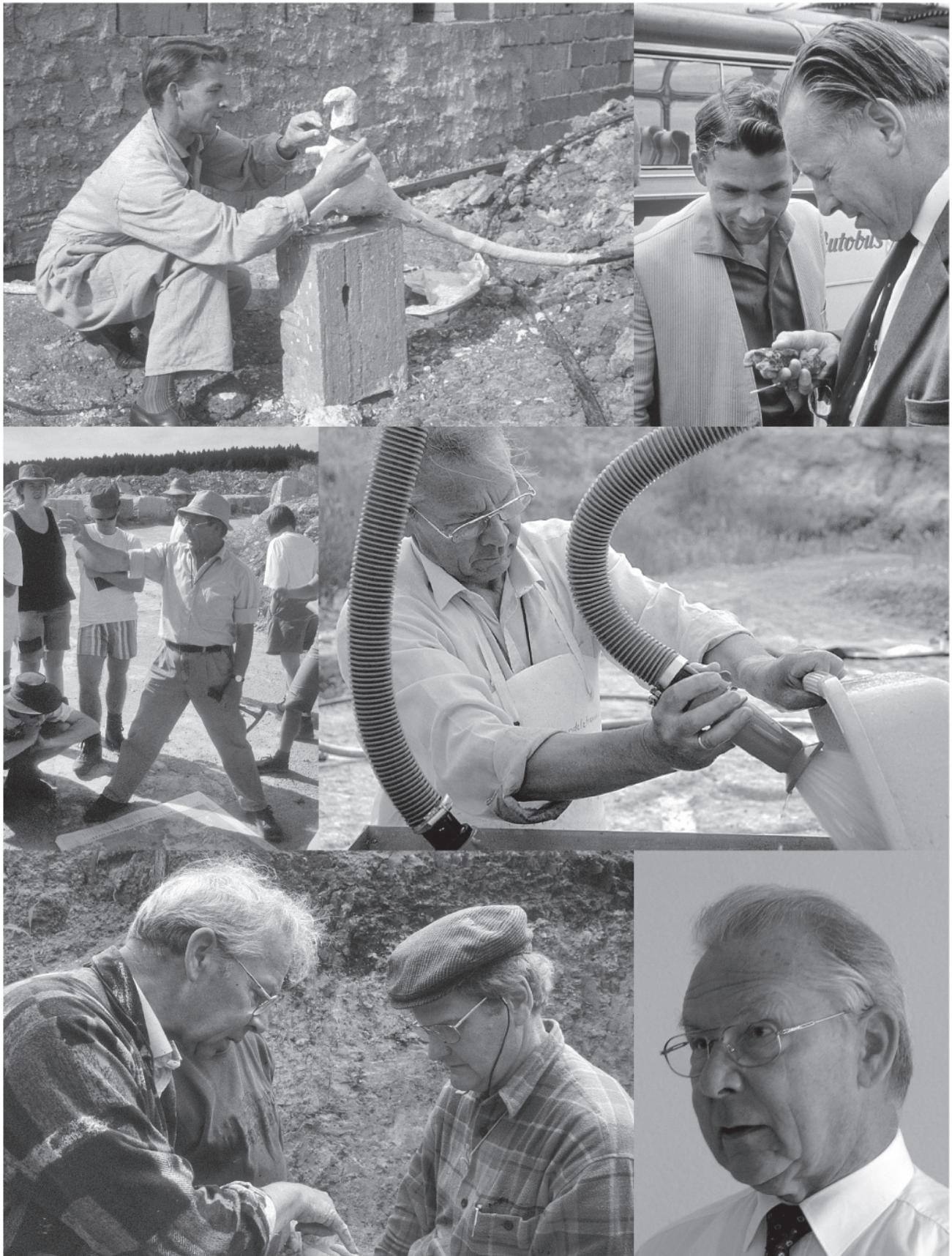
Between 1964 and 1970 Volker FAHLBUSCH was employed as Assistant Professor at the „Institut für Paläontologie und Historische Geologie” of the University in Munich. In 1964 he married his wife Inge, and in 1967 his daughter Iris was born. In 1965 he spent a six months sabbatical at the Carnegie Museum of Natural History in Pittsburgh (PA, USA) where he joined the team of Craig BLACK and Mary DAWSON to participate in a productive field season in the Uinta and Wind River basins in the Rocky Mountain region. This was certainly a completely different experience than conducting fieldwork in the Upper Freshwater Molasse or karst areas of southern Germany. „It was my pleasure to follow Volker’s career over the years. To share with him not only an interest in fossil rodents, but also an appreciation for Bach choral music and domestic dogs,

what was always very satisfying!” says Mary DAWSON. An appointment as a Research Associate at the Carnegie Museum followed in 1968.

Volker FAHLBUSCH’s research focused on intraspecific variability in fossil mammals and their biostratigraphic relevance. In his Habilitationsschrift „Populationsverschiebungen bei tertiären Nagetieren, eine Studie an oligozänen und miozänen Eomyidae Europas” he included more than 7000 teeth! With the successful defense of his habilitation in 1969 he was granted the „venia legendi” for Palaeontology and Historical Geology, and was subsequently appointed as Privatdozent (Lecturer). Henceforth, he followed a straight and successful career at the University in Munich, first as an Associate Professor and later Full Professor. Between 1977 and 1979 he served as the Dean of the Faculty of Geosciences. At the acme of his career in 1979 he was offered the position of Chair of Palaeontology at the University of Mainz in succession of Heinz TOBIEN, one of the nestors of European Vertebrate Palaeontology. Volker FAHLBUSCH declined for several reasons, but primarily due to his fear that the wealth of administrative duties would keep him away from a constant and active participation in research.

During his scientific career, Volker FAHLBUSCH initiated and conducted countless research projects that contributed significantly to mammal palaeontology. His scientific interests usually centered around aspects of systematics, population variability and dynamics, phylogeny, biogeography, biostratigraphy, and biochronology. Although he was primarily interested in rodents (Cricetidae, Eomyidae), he also studied other groups such as primates, carnivores, pholidotes, and artiodactyls. His favourite topics included taxonomy and phylogenetics based on tooth crown morphology, and the variability of tooth-morphological features in fossil rodents. His scientific achievements are widely acknowledged by the international scientific community, and undoubtedly represent fundamental sources of information for many researchers working on biostratigraphy and phylogeny. Research triggered by his collecting activities greatly expanded our understanding of the evolution of fossil rodents and other small vertebrates of Eurasian faunas. Bill CLEMENS (Berkeley CA, USA) points out that „his foresight and efforts in establishing the MN(Mammal Neogene)-units certainly had and continues to have a major impact in helping improve our understanding of Cenozoic stratigraphy.” The establishment of a biostratigraphical framework for the Mammalian faunas of the European Neogene was the core topic of two international Symposia held at the Schloss Reisensburg near Günzburg in 1988 and 1992 that were initiated and organised by Volker FAHLBUSCH. These symposia resulted in several scientific papers and two special volumes, which all continue to be cited frequently to date.

Another one of Volker FAHLBUSCH’s great passions was the vertebrate fossil site of Sandelzhausen (southern Germany, Miocene) where he and his teams excavated for about 20 field seasons and recovered several tens of thousands of vertebrate and invertebrate fossils. These remains represent more than 200 different taxa and made Sandelzhausen one of the most important localities in the continental European Miocene. In 2005, he co-organised the International Sandelzhausen Symposium in Mainburg (Germany), where he was in his element and his knowledge of the quarry central to all of our



Snap shots illustrating the scientific career of Volker FAHLBUSCH. Top left, 1962: as a graduate student during an excavation in Ellingen with the „first field reconstruction“ of a *Plateosaurus*. Top right, 1963: as a graduate student with his supervisor Richard DEHM in Sandelzhausen. Middle left, 1994: during a field trip to Gundelsheim with his own students. Middle right, 1998: screen washing for micromammals in Puttenhausen. Bottom left, 2000: discussing fossils with Winfried WERNER in Sandelzhausen. 2005: during a talk given at the „Sandelzhausen Symposium“ in Mainburg. (Photo credit: 1962 and 1963 by Herbert HAGN, photo archive Volker FAHLBUSCH. 1994, 1998, 2000, and 2005 by Markus MOSER).

discussions. It turned out to be the last scientific meeting that he could attend. Unfortunately, he didn't live to see the publication of two special volumes with papers summarizing the research on Sandelzhausen. The first of these volumes has just been published and the second, which will be dedicated to the life and work of Volker FAHLBUSCH, is scheduled to appear in early 2010.

During the early 1980s Volker FAHLBUSCH became the ambitious driving force behind an aspired scientific collaboration with the Institute of Vertebrate Palaeontology and Palaeoanthropology at Beijing (IVPP), and a Sino-German field campaign to the famous Mio-Pliocene localities of Ertemte and Harr Obo, Inner Mongolia. „He was a great mentor and trusted friend to us. He played a significant role in helping us promote the study of tertiary mammalian microfossils in China” remember Wenyu WU and her colleagues from the IVPP. Gerhard STORCH (then Forschungsinstitut und Naturmuseum Senckenberg, Frankfurt am Main) commemorates „the joint harmonious weeks in the lonesomeness of the Inner Mongolia” that made the project very successful, with an extremely rich fauna produced by screen-washing, and results for a better understanding of poorly known taxa and a proper documentation for the first time. In the opinion of Larry FLYNN (Harvard University, Cambridge MA, USA), the influential series of Ertemte publications, which is continued to present, stands as a fine tribute to the collaborative nature of Volker FAHLBUSCH's investigations. Also, some of these publications are still fundamental to the field.

Volker FAHLBUSCH hosted numerous international scientists for joint projects conducted at the University in Munich, including Bill CLEMENS (Berkeley, USA, as Humboldt Senior Scientist awardee), Oldrich FEJFAR (Prague, Czechia, as a Humboldt Fellow), Wenyu WU (Beijing, China, with a DFG project), Thomas BOLLIGER and Burkart ENGESSER (Switzerland, with a grant of the Schweizer Nationalfond), as well as many others not listed here, which all expressed their great gratitude and pleasure to work with him and some even refer to the collaboration with Volker FAHLBUSCH as a turning point in their professional careers. Several of the professional relationships grew into deep personal friendships that lasted up to more than 40 years.

In 1974 Volker FAHLBUSCH co-founded the „Arbeitskreis Wirbeltierpaläontologie in der Paläontologischen Gesellschaft“, a still existing and thriving annual meeting, which inspired many collaborations among mainly German speaking vertebrate palaeontologists. The number of attendees increased from initially 25 to 30 to currently approximately 100 scientists.

In addition to scientific research, the teaching and training of students was always one of Volker FAHLBUSCH's major commitments. He supervised 40 Diploma and PhD theses, and his classes covered a wide range of subjects, including general palaeontology, invertebrate palaeontology, vertebrate palaeontology, fossil reefs, historical geology, mapping courses, as well as field trips and practical training courses in field and lab palaeontology.

As former students of Volker FAHLBUSCH we always appreciated and never will forget his human warmth and open heart and mind. He was an honest, upright, and at the same time

discretely modest man. We agree with Ray BERNOR (Washington D.C., USA) who perfectly characterises Volker FAHLBUSCH: „He preferred simple words, clearly stated and sincerely felt. He was thoughtful, careful, deliberate and incredibly fair. He valued hard work, good work and taking time to do things correctly. He was highly ethical and he always made sure he did the right thing in the correct way.” Although his wariness might have given him a reputation of being picky, it made him an absolutely reliable scientist, who taught young palaeontologists to be sure about facts to the best of their knowledge.

As an enthusiastic scientist and teacher he fascinated colleagues and students with sometimes unconventional ideas and methods, e.g. by climbing on the desk in the lecture room to demonstrate limb posture in primitive and advanced tetrapods. On the other hand, his respect for the achievements of others usually made him rely on the well-tried rather than new ideas. New hypotheses had to stand on a well justified base, which he tested in sometimes uncomfortable discussions. However, he also cultivated a certain trust in his students, which gave them self-confidence – so far as even to nickname him „VoFa” based on his abbreviated signature.

The private Volker FAHLBUSCH behind the official work and action, setting aside his conscientiousness for a while, happened to be met with at social events, which he appreciated and enjoyed preferably with a good meal and a glass of fine wine or a bottle of beer. Abrupt breakouts of temperament, or a soulful expression of pleasure or relief gave very rare insights into his mind, and if they happened, they often caused astonishment even among his old friends. Many of his colleagues lively remember the Arbeitskreis meetings at the Reisenburg (Günzburg, Germany) where Volker FAHLBUSCH highly appreciated late evening discussions with other small mammal specialists like Hans DE BRUIJN, Karl-Alban HÜNERMANN, Burkart ENGESSER, Oldrich FEJFAR, Gudrun DAXNER-HÖCK and Gerhard STORCH in one of the comfortable bays of the castle.

Well-tended relationships to colleagues and students were very important to him. Among these relationships, the loyalty to Prof. Richard DEHM, his venerated teacher, was outstanding and far-ranging. Although DEHM was an inconvenient contemporary who expected a lot both from himself and others in suppressing any emotions, an extraordinary well and remarkably respectful relationship developed between Richard DEHM and his student Volker FAHLBUSCH. A common base were the scientific objectives and the hard work that was necessary to achieve them. The principles propagated by DEHM, namely conscientiousness, correctness and orderliness were admired by Volker FAHLBUSCH. He owed DEHM a lot, primarily the acquisition of a precise manner of working. After DEHM's retirement, Volker FAHLBUSCH accompanied his teacher DEHM with regular visits until his death at the age of 89 in 1996, which made Volker FAHLBUSCH an important attachment figure for the lonely old man. The influence of the strong regiment and principles of Richard DEHM on Volker FAHLBUSCH was hard to overlook. Nevertheless, he developed his own style, which gave his working group a special flair.

As a tribute to Volker FAHLBUSCH, several mammalian fossil taxa have been named after him. These include the cricetid genera *Fahlbuschia* MEIN & FREUDENTHAL, 1971 and

Pseudofahibuschia FREUDENTHAL & DAAMS, 1988, the cricetids *Neocricetodon fahlbuschi* (BACHMAYER & WILSON, 1970), the eomyids *Asianeomys fahlbuschi* WU, MENG, YE & NI, 2006, *Eomyodon volkeri* ENGESER, 1987, *Eomys fahlbuschi* ÜNAY-BAYRAKTAR, 1989, *Keramidomys fahlbuschi* QIU, 1996, *Ligerimys fahlbuschi* ALVAREZ-SIERRA, 1987, the rhinocerotid *Plesiaceratherium fahlbuschi* (HEISSIG, 1972), the dipodid *Sinozapus volkeri* QIU & STORCH, 2000, the palaeomerycid *Germanomeryx fahlbuschi*, RÖSSNER, 2010, and the spadefoot toad *Pelobates fahlbuschi*, BÖHME, 2010.

In gratitude, admiration and friendship to Volker FAHLBUSCH, a special gift was prepared by his students and colleagues for his 65th birthday: the so-called „Green Book”, titled „The Miocene Land Mammals of Europe”, which includes 46 chapters on 515 pages, written by 44 authors from 11 countries – a gift for which a large number of the European Mammal palaeontologists worked for him and that has made him extremely proud, as he said. It was a pleasure to see him in good shape, and everybody whished him well and many more active and productive years ahead. Unfortunately, these wishes did not come true.

Volker FAHLBUSCH’s legacy will live long through his excellent publication record and the influences that he exerted on his students and colleagues. His contributions will stand as monuments to his creativity and hard work. In our memory he will always remain a lively, inquisitive scientist and contributing individual. We are all highly grateful for what he gave to us.

G. E. Rössner, Munich
U. B. Göhlich, Vienna
M. Moser, Munich
R. Ziegler, Stuttgart

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Curriculum vitae of Volker FAHLBUSCH

- 1934 Born in Celle;
- 1955 High School graduation („Abitur“) (certificate of having passed the Abitur);
- 1955–1957 Undergraduate studies in geology at the University of Göttingen;
- 1957–1960 Graduate studies in geology and palaeontology at the University of Munich. Graduation with diploma;
- 1961–1964 PhD student in Munich;
- 1964 PhD graduation (Dr. rer. nat.);
- 1964–1970 Assistant Professor at the Institut für Paläontologie und historische Geologie of the University in Munich;
- 1965 Six months sabbatical research visit at the Carnegie Museum in Pittsburgh, Pennsylvania, USA;
- 1968 Research Associate at the Carnegie Museum;
- 1969 Habilitation at the Ludwig-Maximilians University of Munich;
- 1970–1975 Universitätsdozent (Lecturer) at the University of Munich;
- 1975–1978 Associate Professor, at the University of Munich;
- 1978–1999 Full Professor at the University in Munich;
- 1999 Retirement.

PhD students (vertebrate paleontology): S. ABUSCH, P. ANTONIADIS, A. DIENEMANN, U. GÖHLICH, H. MAYR, A. LAGALLY, M. MOSER, A. KRISTKOIZ, K. PETER, R. RACHL, G. RÖSSNER, H. SCHLEICH, R. ZIEGLER.

Graduate students (Diplomarbeit): B. BASSLER, B. BAUER, M. BLACH, K. BLASS, H. FEIL, M. HEINZE, U. GÖHLICH, A. GOTSIK, R. HÖFLING, A. HONIGSTEIN, M. KAISER, B. KAISER-WEIDICH, S. KINKELDEI, K. KMENT, B. KREUZER, A. KRISTKOIZ, H. MÜLLER, T. PODUBECKY, R. RIGOLET, E. RIEBER, G. RÖSSNER, H. v. ROCHOW, S. SPIESS, W. STOLOPOULOS, V. TSELEPIDIS, U. UHЛИG, W. WERNER.

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Taxa established by Volker FAHLBUSCH (* = new genus, °* = new species in existing genus, ** = new genus and species)

Lipotyphla, Soricidae:

°* *Angustidens excultus* MAYR & FAHLBUSCH, 1975

Lipotyphla, Talpidae:

°* *Desmanella quinquecuspidata* MAYR & FAHLBUSCH, 1975

Primates, Omomyidae:

** *Paraloris bavaricus* FAHLBUSCH, 1995

Rodentia, Sciuridae:

°* *Palaeosciurus sutteri* ZIEGLER & FAHLBUSCH, 1986

Rodentia, Cricetidae:

°* *Cricetodon kasapligili* DE BRUIJN, FAHLBUSCH, SARAC & UNAY, 1993

°* *Cricetodon tobieni* DE BRUIJN, FAHLBUSCH, SARAC & UNAY, 1993

°* *Cricetodon versteegi* DE BRUIJN, FAHLBUSCH, SARAC & UNAY, 1993

* *Democricetodon* FAHLBUSCH, 1964

°* *Democricetodon freisingensis* FAHLBUSCH, 1964

°* *Democricetodon gracilis* FAHLBUSCH, 1964

°* *Democricetodon mutilus* FAHLBUSCH, 1964

°* *Democricetodon franconicus* FAHLBUSCH, 1966

°* *Deperetomys hagni* (FAHLBUSCH, 1964)

°* *Deperetomys anatolicus* DE BRUIJN, FAHLBUSCH, SARAC & UNAY, 1993

°* *Eumyarion bifidus* (FAHLBUSCH, 1964)

** *Kowalskia polonica* FAHLBUSCH, 1969a

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°* *M. bavaricus* FAHLBUSCH, 1964

°* *M. similis* FAHLBUSCH, 1964

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°* *Neocometes similis* FAHLBUSCH, 1966

Rodentia, Eomyidae:

** *Apeomys tuerkheimae* FAHLBUSCH, 1968

°* *Eomyodon pusillus* (FAHLBUSCH, 1969b)

°* *Ligerimys antiquus* FAHLBUSCH, 1970

Rodentia, Zapodidae:

°* *Eozapus similis* FAHLBUSCH, 1992
