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Obituary

Prof. Dr. Thomas van der Hammen (1924–2010)

Geologist and palaeoecologist Thomas van der Hammen died at his home in Chia, Colombia, on 10 March 2010, following a long struggle with cancer. His studies have fundamentally changed our perception of the dynamic history of tropical ecosystems in South America.

Born in the Netherlands in 1924 Thomas developed a great interest in the enjoyment and protection of nature: by 1939 he already had his first publication in a popular Dutch journal with the focus on vegetation science. After the Second World War he studied geology at Leiden University. He was trained as a palynologist by Professor Frans Florschütz and he had regular contacts with other founding fathers of the discipline of palynology such as Johannes Iversen and Robert Potonié. The topic of his PhD dissertation 'Late-glacial flora and periglacial phenomena in the Netherlands' marked out a subject that would remain of interest to him for the rest of his life. In 1951 he started working for the Geological Survey in Colombia and did pioneering research on Cretaceous and Cenozoic sediments by integrating geology and biology. Through his trade mark of a multidisciplinary approach, he unraveled the stages of tectonic uplift of the Andes. Later, he and his co-workers were able to make a link with the evolution of the montane forest and páramo vegetation of the Northern Andes.

In 1959 Thomas van der Hammen returned to the Netherlands to work at the Department of Geology of Leiden University. He developed a research line in palaeoecology and climate history in

the eastern part of the Netherlands where ice-pushed topography and eolian cover sands dominate the landscape. At the same time he extended his research in tropical palynology with exploratory studies in Guyana, Suriname, and in the Amazon Basin.

In 1966 Thomas moved to the University of Amsterdam where he was appointed professor in palynology. He was based at the *Hugo de Vries-Laboratory* and under this banner he developed many research projects. A dozen of Colombian PhD students came to visit Amsterdam and graduated under the supervision of Thomas. They were trained in topics such as geology, biostratigraphy, climate history, vegetation analysis, and vegetational and geological mapping. Most field work areas were located in Brazilian and Colombian Amazonia, the Colombian Andes, and Venezuela. Employing his ability of getting people to work in teams he designed the large 'Ecoandes Project' in the 1970s and the 'Tropenbos Colombia Programme' in the 1970s. The *Ecoandes Project* focused on integrated palaeo/actuo-ecological research of transects across different sectors of the Colombian Andes. These unprecedented studies resulted in seven volumes of the book series *Studies of Tropical Andean Ecosystems* published by Cramer/Borntraeger in Germany. In the *Tropenbos Colombia Programme* studies focused on a wide variety of subjects, ranging from fishery, plant systematics, floristic inventories, sociogeographical studies, archaeology, anthropology, palaeoecology, and tropical vegetation ecology. These studies resulted in 20 volumes of the book series *Studies*



Professor Thomas van der Hammen explaining the Pleistocene geology of the high plain of Bogotá during a student excursion in 1997 (photograph: H. Hooghiemstra).

on the Colombian Amazonia published by the Tropenbos-Colombia Office in Bogotá. With the aim of promoting the distribution of scientific results among Colombian institutes and colleagues around the world, he started in 1973 the series *El Cuaternario de Colombia/The Quaternary of Colombia*, which he edited up to volume 20 (1995).

Perhaps his most valuable scientific contributions were his studies on the understanding of the history of Pleistocene climate change. Trained in climate history issues of Western Europe he showed that the neotropics had also experienced a dynamic history of climate change. Thomas van der Hammen discovered the immense value of the pollen archives in the deep intra-Andean basins. He studied the first deep bore holes in the Bogotá Basin and the Fúquene Basin and developed the basis of later studies on continental pollen records from Colombia showing long-term change.

He lectured at Amsterdam University for two decades and inspired generations of Dutch students. He was on the advisory board of the natural history museum *Natura Docet* in Denekamp for a long time where he guided the establishment of the nature reserve *Het Molenven* as a key forest reserve. He played an active role in developing international structures for nature assessment studies.

After his retirement in 1989 he lived in Chia, a village near Bogotá. Using the pollen spectra in fossil pollen records he reconstructed two hectares of high plain forest near his house. This initiative attracted the attention of many officials and was an inspiration to nature conservation in a wider area. He promoted many studies in collaboration with national research institutes such as the *Instituto de Ciencias Naturales* (ICN) of the Universidad Nacional de Colombia, the *Geographical Institute* (IGAC), the *Geological Institute* (Ingeominas), the *Anthropological Institute*, and the *Von Humboldt Institute for Biodiversity*, all in Bogotá.

Thomas van der Hammen published over the extraordinary long period of 71 years: from 1939 to 2010. In Colombia he also published major papers in Spanish to serve the Latin American community. Five newly described Andean plant species were named after him. He published over 140 articles after his retirement in 1989 which is almost as many as the ca. 160 papers published before his retirement. His contributions to the training of Colombian scientists and giving a scientific basis for land use and nature conservation in Colombia was highly valued. Thomas's enthusiasm, charisma, vision, and ability to make people cooperate made him a most inspiring person and a true leader.

Thomas van der Hammen was a member of the *Academy of Sciences* of Colombia and Denmark. He was knighted by the Dutch Queen (*Ridder in de Orde van de Nederlandse Leeuw*), received the prestigious *Orden de San Carlos* in Colombia, and was decorated with the Dutch *Van Waterschoot van der Gracht* penning for his palaeobotanical work.

Thomas van der Hammen published some 300 publications mainly in international and local journals, as books or book chapters. The following list shows a selection to characterise his work. The complete list of publications is available at the website of the Institute for Biodiversity and Ecosystem Dynamics (IBED) of the University of Amsterdam (<http://www.science.uva.nl/ibed-ple>).

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