



## On the 80th birthday of Paul J.M. Maas

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Paul and Hiltje collecting *Costus* in Lomitas (near Cali) during their 2018 fieldtrip to Colombia.

On 27 February 2019 Paul Maas turns 80<sup>3</sup> but he still walks up- and downhill through tropical forests to collect plants. Since he entered biology in 1957 (at Utrecht University) Paul contributed to plant systematics in numerous ways: as collector, productive taxonomist and teacher, and identifying thousands of herbarium specimens. He has focussed on Neotropical flora since his trip to the Bakhuis Mountains in Suriname (1964). Since his appointment at the Institute of Systematic Botany of Utrecht University (1965), Paul collected 10 735 specimens and contributed to many other series (e.g., the 1971 Prance series from Brazil). Initially, he made large general collections, but later he focussed more on the plant families under study at his Institute in Utrecht.

Apart from his own collections, he identified new collections, and loans in U, L and WAG, but also plants in other (overseas) herbaria that have Neotropical material, in this way sharing his knowledge on the many groups he has mastered over the years. It was always great to travel with Paul to large or small herbaria: everybody knew him and enthusiastically greeted him with large stacks of plants that needed identification. This always turned the “short visit to herbarium X, since they only have few *Annonaceae*” into an extensive, high-throughput identification session for him. Paul’s wife Hiltje has been an indispensable support for Paul in all this work.

Since the early eighties Paul drove the international *Annonaceae*-project. This project has evolved from monographic studies and morphological analyses to the reconstruction of (molecular) phylogenetic relationships of the family. Although Paul himself never ‘did molecular work’ he was always very interested in the outcomes and eager to discuss the relationship between the molecular data and his taxonomic insights. He also encouraged his PhD students to root their molecular work firmly in

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<sup>3</sup> An elaborate description of the time frame before his retirement can be found in: ‘On the retirement of Paul Maas’ Blumea 49: 11–24.

taxonomic knowledge, preferably acquired through fieldwork. The morphological insights that Paul contributed always gave his students a different perspective on the placement of this or that species in their molecular phylogeny.

Management was not Paul's favourite activity but teaching, in particular his course 'Neotropical Plant Families', was. The interactive teaching method of this course still is considered very modern. Using plant specimens, Paul taught the specific characteristics of the families one was most likely to encounter on a trip to South America. Discussions among students were always lively and enjoyable while they moved from one family to another. Lectures summarised the most important lessons and showed the beautiful photographs he had made on his many collecting trips. The exam consisted of an identification session where Paul had carefully selected specimens. Even today, Paul continues to contribute to this course, now offered at Naturalis Biodiversity Center, although it has been extended to include plant families of the other tropical regions of the world.

From 1990 onwards Paul headed the Systematics group at Utrecht University until his retirement in 2004. In 1994, Paul accepted a professorship. As *primus inter pares* he headed a flourishing group during difficult times. The group had already been asked to abandon all monographic and cladistic studies by the Faculty of Biology (1992) and in the same year saw its status reduced to a project group in the Plant Ecology department. Notwithstanding this, in the nineties Utrecht was widely seen as a top ranking centre of plant-systematics and host to a number of successful international meetings, such as the *Annonaceae* workshops. The family atmosphere of the group, established mainly due to Paul's friendly personality, was also clear from the fact that an active group of (mostly formally retired) honorary staff members continued their scientific work at the group, such as Alberta Mennega and Jan Lindeman. The official formation of the National Herbarium of the Netherlands (NHN) in 1999 seemed to be a recognition for the status the group had attained under Paul's leadership.

Alas, after Paul's retirement the Faculty of Biology withdrew from the multilateral agreement under which the NHN enjoyed sustainable core funding from three universities and the Dutch Government. The collections were moved to Naturalis and the remaining staff dispersed to other research groups within Utrecht or at other universities. The closure also meant that there was no more room for honorary staff members. Fortunately, Paul and Hiltje (together with Lubbert Westra) were welcome at the systematics group of Wageningen University. They travelled to Wageningen until in 2013 the Wageningen collections were also moved to Naturalis, their new and current travel destination. Although travel time was much longer, all three still travelled to Leiden several times a week. Paul's optimism sustained him and Hiltje through all these moves, and he remains an active taxonomist, inspiration, knowledge base, and taxonomic reference for colleagues and students at home and abroad. In

addition to a number of projects on the side, including the description of 'Unknown Yellow' (soon published as *Pibiria* in the Botanical Journal of the Linnean Society) and his co-authorship of the book 'Timber Trees of Surinam' (Bhikhi et al. 2016), his post-retirement research focused on completing several major revisions of genera in Neotropical Annonaceae. The completion of the revision of the large genus *Guatteria* (that reduced the number of species from over 300 to 175) was a great hallmark and relief. Paul's comment afterwards was: "never again!", although to be honest Paul is still tying up loose ends after this publication. Paul also revised (in collaboration or as co-author) many other smaller genera such as *Diclinanona*, *Sapranthus*, *Desmopsis*, and *Unonopsis*. The main challenge that remains is the large genus *Annona*, but a partial revision – for the Flora of the Guianas – is nearing its completion. In recent years, Paul has returned to the family *Costaceae* as well. Much new material became available in the past 45 years and he and Hiltje are now revising the early work. The now available good photographic images of living material make descriptions more reliable and taxonomic decisions easier to take. Two large publications that already originated from this work were the Flora treatments of *Costus* for Gabon and Cameroon.

Since his retirement Paul restricted his collecting activities mainly to *Annonaceae* and *Costaceae*, although interesting other plants were collected as well during his recent field trips. In the last fifteen years he visited: Brazil, Colombia (twice), Costa Rica, French Guyana (three times), Gabon, Guyana, Panama, Trinidad, and Venezuela. In addition to these trips, Paul made several travels to other institutes to help finalise manuscripts, such as in Finland (*Oxandra*), USA (*Sapranthus*), and Austria (*Annona*).

Paul has described more than 230 new species during his career (with the latest ones just submitted). Given his standing in the field of plant taxonomy, it is not surprising that a substantial list of taxa were named after him. Since his retirement these include:

- Anthurium maasii* Croat (*Araceae*, 2010)
- Croton maasii* Riina & P.E. Berry (*Euphorbiaceae*, 2011)
- Cyrtochilum maasii* Szlach. & Kolan. (*Orchidaceae*, 2014)
- Maasia* Mols, Kessler & Rogstad (*Annonaceae*, 2008)
- Microchilus maasii* Ormerod (*Orchidaceae*, 2007)

Paul can look back on several decades of impressive contributions in plant taxonomy in terms of research and teaching. He has been an inspiration and example for many. We can only hope that these contributions will continue for a long time and therefore wish Paul and Hiltje many years of plant collecting together to come!

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