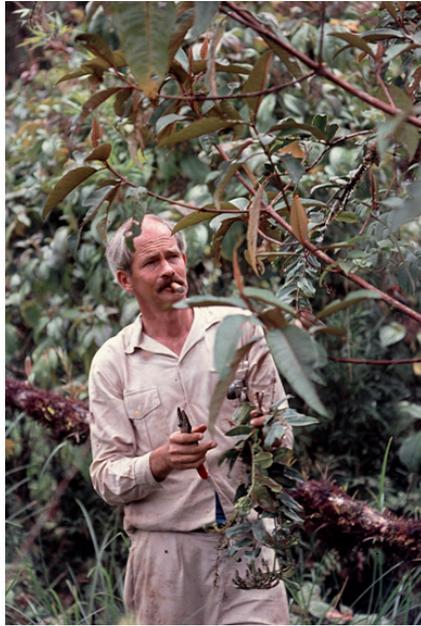


IN MEMORIAM: CEES ('KEES') BERG, JULY 2nd 1934 – AUGUST 31st, 2012



Dr Cigaró collecting a Marcgraviaceae in Ecuador (1977) – Paul Maas

Cornelis Christiaan Berg, better known as Cees (or 'Kees' for the non-Dutch) Berg, was born on July 2nd, 1934 in the city of Bandung on Java, then still the Netherlands East Indies. Later, the family moved to Sumatra, close to the city of Medan. During the Second World War, when Japan attacked the Netherlands East Indies, Cees' father was enlisted and, unfortunately, did not survive the war. Cees, his four brothers and their mother were interned in a women's camp near Medan, but at the age of 10 Cees was moved to a men's camp. This period must have been very traumatic as Cees, after his release, spoke little for a long time. All brothers and their mother survived the war, but shortly after the liberation their mother died of hunger oedema. The five orphans came to the Netherlands, where they were split over two foster families. Cees, together with his youngest brother, came into a household with two daughters, and during holidays, both families joined so that the brothers were united. Together with the eldest daughter, Cees started to explore the forests close to his house. Both studied in Utrecht, Cees majoring in biology and his foster sister studying nursing. — *Peter van Welzen*

Utrecht, The Netherlands. As a student, Cees developed an interest in experimental taxonomy, more specifically in the study of polyploidy complexes. He focused his attention to the cytotaxonomic study of two intricate species complexes, *Cardamine pratensis* s.l. and *Myosotis palustris* s.l. and used the technique of experimental cultivation for the investigation of genetic differences among populations. He collected many samples of these two species complexes. Later he supervised a cytotaxonomic study of *Dorstenia* (Moraceae) by one of his students. — *Theo Gadella*

About 50 years ago, Cees Berg and I had in the Utrecht Herbarium (Netherlands) a meeting with its director Prof.dr. J. Lanjouw. We both very much wanted to do a PhD study in plant taxonomy and Lanjouw suggested to do it within the framework of the Flora Neotropica Project, which was just about to start at that time. Lanjouw proposed as subjects for our study the families Moraceae or Zingiberaceae. Cees choose Moraceae, and I myself Zingiberaceae. At that time, we had no idea that we would work on those plant families for the length of our whole career. Cees and I spent several years in completing our respective Flora Neotropica

treatments and, as was still customary at the time, we conducted our work using herbarium material only - field work was not necessarily considered to form an essential part of taxonomic studies. We both defended our PhD thesis on the same day, the 4th of May 1973.

After that period we both worked as Staff members at the Utrecht Institute involving, next to continuing taxonomic study of “our” respective families, a great deal of teaching and training young students in taxonomy. I particularly remember the course on the Dutch Flora we were giving each year, culminating in the week in the southern Dutch province of Limburg, walking through the nice and varied landscapes with many students, and finishing the days in the evenings enjoying excellent Limburgian beer in bar “De Kroon” in Gulpen together with Frits Jonker, Ad de Roon, Lubbert Westra, Carolien de Wal, and many other Utrecht Staff members.

During that period, Cees did not feel overly enthusiastic about going into the field. I remember, however, that after spending a year in Amazonian Brazil (1971) and joining several expeditions led by G.T. Prance all over the Amazon region, I suggested to Cees to do the same. He then agreed and went to Brazil, only to become completely “lost” after that. Many visits to Tropical America followed in order to study Moraceae and Cecropiaceae (a family that Cees newly described) in the field, and also combining this with visits to numerous Neotropical herbaria.

In 1977 we went into the field together, visiting Panama where we were guided by our fantastic guide and dear friend Dr. Bob Dressler. Then we continued our trip to Ecuador, a country with many interesting Moraceae, Cecropiaceae, Urticaceae (and Zingiberaceae). There we made some very nice field trips into the Oriente. But not all went well, as on one day we suddenly came to a halt because of a landslide. With Cees driving that day, we were forced to continue through the rubble with our car, but we had to pay dearly when suddenly a large piece of rock came down on top of our roof. To make things worse, an axle on the left side of our car broke down. There we were stuck –and what to do? One of our team members, Ben ter Welle, arranged for a truck and managed to bring the car back to Quito. Of course, Cees and I

continued collecting in the meantime! But then we got a big financial problem as the insurance did not cover expenses made for trips to the Amazon. So an emergency call to the Netherlands was necessary, to see if someone (my wife) could send 1000 dollars to us. Cees during his field work always had one major problem: he could not live without coffee and....cigars. I remember that whenever he was out of cigars he used to ask everyone in the villages we came through to supply him with a few cigars (which was not always that easy...). One of his Ecuadorian colleagues, the late Dr. Jaime Jaramillo, very aptly nicknamed Cees Doctor Cigaró.

With Cees one of the Last Mohicans passed away. Throughout his long career he gained a vast and unparalleled knowledge of the huge family of Moraceae, and of the genus *Ficus* in particular. He could identify even the tiniest leaf fragments. It is unlikely that this achievement is ever going to be equalled by anybody, and particularly so in a time that favours short-time projects rather than long-term work so very much essential for understanding large plant families. We all shall miss Cees very much. — *Paul Maas*

Projeto Flora Amazônica and The New York Botanical Garden. Kees Berg’s long relationship with The New York Botanical Garden (NYBG) began in 1977 when he participated in one of the two parallel expeditions that inaugurated *Projeto Flora Amazônica* (PFA), part of Brazil’s ambitious plan to document its vast plant diversity. Over more than ten years, most of the financial support for PFA came from the U.S. National Science Foundation, and the non-Brazilian participation was coordinated by Ghilleen Prance, curator and later Vice President for Botanical Science at NYBG. Kees’s expedition included Prance, Antônio Sérgio da Silva (Brazilian counterpart), Michael Balick (then a graduate student and now director of the Institute of Economic Botany at NYBG), Bruce W. Nelson (now a researcher at INPA in Manaus), and two tree-climbing *mateiros* or woodsmen, Mario R. dos Santos and Raimundo P. Bahia (well-known as “Doca”). During October–December 1977, the expedition collected plants in the Serra dos Carajás, along the Transamazon Highway, around Tucuruí, in the Serra do Cachimbo, and along the Santarém-Cuiabá Highway. The expedition produced 1921 numbers, including 100 collections of palms.

For more than 40 years, Kees was appreciated by his colleagues at NYBG for sharing his rich knowledge of botany by identifying specimens, training students, publishing monographs, and contributing treatments of his plant families to many floristic projects. Probably his most important contribution to NYBG and to the botanical community overall were his treatments in his groups of expertise for these monographic and floristic projects, among others:

- *Flora Neotropica* Monographs for the Organization for Flora Neotropica, based at NYBG: Olmedieae and Brosimeae (Moraceae) in 1972; *Coussapoa* and *Pourouma* (Cecropiaceae) in 1990; Moreae, Artocarpeae, and *Dorstenia* (Moraceae) in 2001; and *Cecropia* (Cecropiaceae) in 2005; he submitted his treatment of *Ficus* to *Flora Neotropica* just before his death.

- The Moraceae, Cecropiaceae, and Urticaceae for the *Guide to the Vascular Plants of Central French Guiana*.

- Those families plus the Ulmaceae for the *First Catalogue of the Flora of Acre, Brazil*.

Another service that Kees provided to NYBG botanists was the identification of nearly all of our collections of Moraceae (including Cecropiaceae), Urticaceae, and Ulmaceae, which has greatly increased the scientific value of our collections. NYBG's institutional data-base has over 3200 identifications made by Kees over the years, but unquestionably the NY herbarium contains many more.

Curators at NYBG are grateful for the nearly 40 years of collaboration with Cornelis Berg, not only for the improvements he made to our collections and the intellectual contributions he made to our publication program, but also because of the close friendships that he maintained with many of our staff. He will be sorely missed, but he will continue to inspire everyone here who had the privilege of knowing him. — *Douglas Daly and Scott Mori*

Bergen, Norway. (A second phase in Cees his career was his professorship in Norway.) One of the first things Kees said to me in the process leading to his employment at Milde (Norway, near Bergen) in 1985 was: "I am an old tree, and they are difficult to transplant." Nevertheless the transplantation took place, and as predicted, he had a

rather difficult process adapting to the new environment and the new language, but he took that challenge with restraint.

Frankly, the conditions at Milde were far from ideal for research of the tropical genus *Ficus* and its relatives. Nevertheless, Kees continued to work indefatigably on this enormous and very complicated group of plants, which are so important in the tropics, and managed by a generous gift from our benefactor, Bjarne Rieber, to establish a greenhouse to grow them. He had about 200 different species in cultivation.

This being solved, a much more difficult task remained: to adapt to the rather complicated management of the organisation, one which was an enduring mystery to him, and where I was given the task to assist him. We had many long discussions, and somehow found ways through this jungle. I cannot claim they were easy talks, but Kees had an unusually friendly persistence, which I liked, so we never really clashed, even when we disagreed.

I particularly remember that, to my surprise, he was very keen on establishing a collection of native Norwegian trees, an idea that had not previously crossed our minds - we were primarily engaged in finding foreign woody plants for Norwegian gardens. But certainly he was right: The Norwegian Arboretum should also take an interest in our native trees!

He also engaged in the relationship with the Friends of the Arboretum and started nearly immediately to write a Newsletter which under his successor Per H. Salvesen has developed into the important journal *Årringen*, issued yearly, where we present results from our collections to the general public. This close relation to the Friends led to the establishment of a heather garden, which was donated in 1996, and which still is run by the Friends. This garden was an enjoyment to him, as well as to all of us.

After his retirement in 2005 and return to the Netherlands, he was a frequent visitor to Bergen - surely the old tree had developed some Norwegian roots. He usually came about midsummer, when also visiting his daughter Hendrieke at Voss. He then filled our tables with specimens that are in the BG herbarium (2,000–3,000 specimens), which now houses a comprehensive, well-identified collection preserved for future generations to study

- of particular importance since the tropical forests are disappearing quickly.

But this summer in 2012 we missed him, he was too ill to travel, though he still steadily worked on the task to revise *Ficus*. In his last letter, which we received a few weeks before his death, he was concerned about a loan, which was needed quickly for drawings (by his daughter Hendrieke) for a paper he had nearly finished, since his days were numbered. He was certainly one of the most dedicated and industrious botanists I have known.

The old tree has fallen, but the seeds he spread, will grow! — *Per M. Jørgensen*

Leiden, The Netherlands. Back in the Netherlands Cees, of course, continued his work on Moraceae. The first time I met him in the Leiden herbarium, I vaguely remembered that I had seen him before, when I was still an M.Sc. student, working on the ecology of tsetse flies in Ivory Coast. My supervisor was Prof.dr. Koos Wiebes, a specialist in fig wasps. Wiebes announced that he would come for field work to the Ivory Coast and while driving to the expedition site he would visit me and he would be accompanied by a colleague, which indeed was Cees. Together they worked on the interaction between figs and wasps, resulting in a book about the African species (Berg & Wiebes, 1992). Leiden is for many taxonomists synonymous with Flora Malesiana. However, Asia had never been a focus for Cees, probably because another world expert on Moraceae had worked there, Corner in Singapore. Corner had produced a manuscript on the Malesian Moraceae, but disagreement with Van Steenis (editor of *Flora Malesiana*) about several species concepts stalled publication of the Moraceae. We were happy that we could interest Cees in revising the Malesian Moraceae, using Corner's manuscript as a basis. He consulted thousands of specimens during a few sabbatical periods, and quickly produced two big volumes, one on *Ficus* (2005) and one on the remaining Moraceae (2006). The editors of local Asian Floras now became aware of Cees his knowledge and invited him to help with their Flora treatments as well. He quite liked working on the Thai Moraceae. This took quite some time, but it allowed him to visit the country several times and at the time of his death Cees was still supervisor of a Thai PhD student working on a group of figs. Cees only worked with a morphological species concept, but he was happy

with the results of molecular work (though those results also synonymised his Cecropiaceae with the Urticaceae), and he collaborated closely with Finn Kjellberg's group in Montpellier (France). Cees was certainly a person who liked to travel; he visited and did field work in almost all the tropical countries of Africa and South America. In Asia, he visited southern China and Thailand. Only after retirement did he return once to his land of birth, now called Indonesia. — *Peter van Welzen*

Collecting in Acre, Brazil. The state of Acre, Brazil in Southwestern Amazonia is honoured to have been the site of Dr. Cornelis C. Berg's last botanical expedition in April, 2010. Given the high diversity of Moraceae in Acre, he was one of the key botanists invited to participate in the *Mobilizing Taxonomic Specialists for Acre* project, developed by the collaborative research program between the New York Botanical Garden and the Universidade Federal do Acre (UFAC) to advance our knowledge of that region's most important plant groups.

He joined the field team of UFAC's Laboratório de Botânica e Ecologia Vegetal, which at the time consisted of Flávio Obermüller, Marcos Silveira, Herison Medeiros, Wendeson Castro, Edilson Consuelo de Oliveira, Lívia Souza and Heloisa Polary. The group visited diverse localities: the Riozinho do Andirá, Seringal Cachoeira, Fazenda Catuaba, Reserva Florestal Humaitá, Rio Iquirí, and the Vila do V in six municipalities (Rio Branco, Sena Madureira, Bujari, Porto Acre, Senador Guiomard and Xapuri) in the eastern part of the state. The expedition produced more than 400 collections, the vast majority of them in the families of Dr. Berg's expertise. Before and after the field work, he annotated virtually all the UFAC herbarium's specimens in those plant groups.

His work contributed significantly to our knowledge of the Acre flora, adding two new genus records and 25 new species records for the state, and among those eight new records for Brazil. Undoubtedly, if he had had more time, he would have added a number of species new to science from the Acre flora, considering that 18 or nearly half of his *Ficus* collections from that trip remained undetermined.

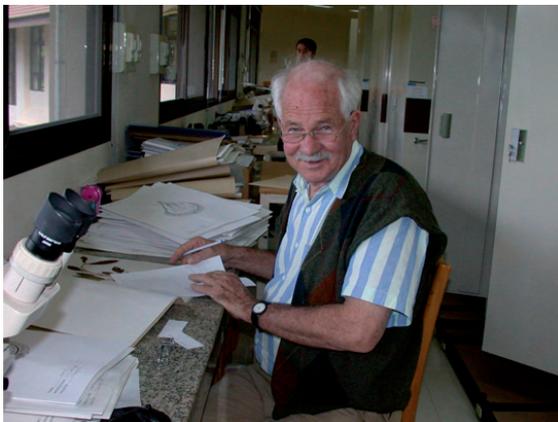
During his brief visit to Acre, "Berg" (as he was dubbed there) made a lasting impression on everyone he met. He will be remembered in Acre with fondness and great respect. — *Flávio Obermüller and Douglas Daly*

Molecular work? Cees was sceptical about the ability of DNA-sequence based phylogenies to uncover the true relationships, but - as always - welcoming anybody who wanted to contribute to our understanding about any aspect of *Ficus*. Embarking on a quest for discovering the global phylogeny of *Ficus*, I first contacted Cees in 2002 to ask if he would support my funding applications as an expert of the classification of *Ficus*. He kindly wrote back to me on the same day and offered me his assistance, as well as access to his extensive living collections in Milde, which I visited for a pleasant couple of days in 2003. I since met him several times when he visited the herbarium in Kew and Minnesota where I worked during my postdoctoral years. He was always very helpful on checking my identifications and commenting on the results of the phylogenetic analyses, and he always had time for a nice meal, and a good beer and a chat about future research needs. He was particularly happy about the possibility of the DNA-based work to enlighten the large and difficult Neotropical section *Americana*, which he was in the process of revising until his death. However, he was very sceptical about some of the infrageneric relationships suggested by the molecular data, and wondered about the limitations and methodological errors. When offered co-authorships for his help and comments on the first global phylogeny published in 2005, he kindly refused with a smile and a twinkle of his eye, because he would rather keep the right to criticise it afterwards. In *Flora Malesiana* he largely ignored the molecular suggestions of relationships, I guess he found it too difficult to decide which of the results were well supported and which were only preliminary

hypotheses - surely enough we are still struggling to sort out the infrageneric relationships of *Ficus* and even the origin of the figs based on molecular data. Berg was a great morphologist and has inspired us to pursue the molecular work in even more detail - especially when DNA suggests obvious conflicts with relationships well supported by morphology. As Berg said, “it has to make sense, you can’t just say that swallows are not birds” and so the white crane has himself departed, but his love of *Ficus*, supportive attitude, and persistence and insistence on making sense of it all continues. — *Nina Rønsted*

Honours. We knew Cees as a silent, hard-working man who never took part in social events like coffee breaks or drinks. Till his death, he tried to visit Leiden as much as possible, but like in Norway, he missed his last appointment. We also treasure him as a very friendly and helpful person. Although he had no teaching obligations in Leiden, he still motivated students to help revise the species of the Solomon Islands. We admire the way in which he made all arrangements for after his death: the list of persons who should be notified, who should ‘clean’ his desk, etc. Cees was really a banyan tree among taxonomists and he will be dearly remembered.

One Moraceae was named in honour of Cees: *Dorstenia bergiana* Hijman. Cees newly described or made new name combinations for 318 taxa in the Moraceae and Cecropiaceae and for one Boraginaceae, a subspecies of *Myosotis*, *M. palustris* (L.) Nathh. subsp. *nemorosa* (Besser) C.C.Berg & Kaastra, a result of his polyploidy interest. — *Peter van Welzen*



Cees in the herbarium of the Queen Sirikit Botanical Garden, Chiang Mai, Thailand. — *Rachun Pooma*



Two giants in Chiang Mai, Thailand. — *Rachun Pooma*