



C. G. G. J. van Steenis (left) and F. W. Went collecting near Amersfoort, Netherlands, about 1918.

THE LIFE OF A BOTANIST

It was on the 31st of October 1901 that Cornelis Gijsbert Gerrit Jan van Steenis was born at Utrecht, as a first child to H. J. van Steenis and Louisa W. S. van Vuuren. His parents were at the time respectively 39 and 37 years old; both had been educated as schoolteachers. They were late to start a family, but life had not been easy for Hendrik Jan, who had been a follower of the anarchist Domela Nieuwenhuis and would remain all through his life an idealist, pacifist, and at least later an extremely religious man. When the poet and author Frederik van Eeden started his community 'Walden', he and his fiancée became members and married early in 1901. Walden proved another deception and with a child on its way it was decided to accept a job as a correspondence clerk at Utrecht.

If the family is to be believed, little Kees got what nowadays would be called an anti-authoritarian education. At that time his parents had turned to theosophy and consequently the children (five sons) were raised as vegetarians.

When looking for the first signs of a botanist to be, there was certainly a love of plants, inherited from his mother. From his youth he was an expert in making bouquets of wild flowers, and I remember being told of his efforts in raising pea plants in the roof-gutter with his mother's curtain-rods as support.

After primary education Kees attended the Municipal Secondary School at Utrecht (1915—20) without special problems; it was soon evident that the natural sciences and especially biology were more in his line than languages. It was there that he found a congenial friend, Frits Went (son of F. A. F. C. Went; at present professor at Reno, U.S.A.), and a stimulating biology teacher, M. Stakman. Through those years he frequented the Went home on the Nieuwe Gracht (now housing the Biohistoric Institute), a place full of memories, where Mrs. Went took him under her wing, and Professor F. A. F. C. Went, as a second father, in due time would recommend him for an annual grant from the State of the Netherlands, enabling Kees to enter Utrecht University. Many were the times that Frits and Kees made excursions together (once even at the expense of a beautiful stamp collection), and it was a happy day when Stakman gave them a ten for biology on their final school-report. That the external examiner saw fit to give an eight remained a lasting sore point.

It was not only school and botany that kept him busy in those years. 1914—1918 were war years and although Holland was not directly involved, food and other problems, especially for a family with growing boys and a small budget, made it difficult to make ends meet. Kees had an interest in handicraft, and loved to watch blacksmiths, cobblers, carpenters (e.g. the later famous architect Rietveld, who lived nearby), and the like. He was a handy man himself, took to cobbling and for several years repaired the shoes of the family.

Life at the university started in 1920 and no money was available for subsidiary student activities. Other pursuits filled the gap. He was one of the first presidents of the 'Nederlandsche Jeugdbond voor Natuurstudie' (Youth Society for Nature Study), the so-called

N. J. N., and for several years served on the board of the 'Natuurhistorische Vereeniging' (Natural History Society) at Utrecht. Those who attended the first winter conference of the N. J. N., I believe it was at Amersfoort, must have been astonished at his market-vendor capabilities when auctioning slightly modified fruits of *Dipsacus* as specimens of some extinct animal.

His prime education was largely due to his excellent professors H. F. Nierstrasz and H. J. Jordan (zoology), F. A. F. C. Went and A. A. Pulle (botany), and L. M. R. Rutten (geology). The influence of Nierstrasz was certainly no minor one, as it was he who taught his students critical thinking.

Excursions abroad were not yet part of the Study Programme, and it was the Dutch flora which was the main object of his interest while camping with Kees Sipkes and others, and with the N.J.N. Early in 1923 he had a chance of joining Sipkes to the South Tirol, during the daytime hiking and botanizing near the snow, at night pitching camp. All that, with the Seiser Alm and Lake Garda at the end, made it into an unforgettable trip.

Kees Sipkes, a friend in common, the N.J.N. and joint excursions and camps, laid the foundations of our life together. Weekends to Haarlem became more frequent, although it was no sinecure to cycle from Utrecht and not always with a chance of hanging on to a motor-truck.

After he passed his doctoral examination (M.Sc.) in June 1925, Kees had to serve for his number with the field-artillery. In September 1926 he was appointed assistant to Professor Pulle, starting on a thesis. As it would have taken up many years to deal with the composition, origin, and ecology of the flora of the Netherlands, this original plan was abandoned in favour of a revision of the Malayan (taken from Malaya to New Caledonia) *Bignoniaceae*. It was not his first contact with the flora of the tropics as he had made some small revisions for 'Nova Guinea' as part of his doctoral studies. As plans for the future began to take shape, the idea of a career at Buitenzorg, the Mecca of tropical botany in Java, occupied Kees's thoughts.

They were hectic days in October 1927, with graduation, marriage, and voyage to Java all in the immediate future, and on top of it all the bride falling ill. Graduation and marriage were postponed for a week, the groom being tired to death with packing, working on his theses, and travelling to and from Haarlem. But all was overcome. The graduation was 'cum laude', notwithstanding his audacity in attacking the authority of Hugo de Vries in one of the theses, and on the 18th of November we sailed from Genoa.

Many evenings we spent on deck, looking at the lava stream of Mt Etna, the firmament with the Southern Cross and the falling stars, and the beautifully phosphorescent sea in the Indian Ocean. In daytime the flying fish, the Suez Canal zone, the sea, and land wherever we could spy it, kept our attention. Ceylon was the first place in the tropics where we set foot ashore, and we found our way to the Cinnamon Gardens, followed by a native, eager to explain, and more especially after baksheesh. Pulu Weh with Sabang, the isle off North Sumatra was the next stop, and a good walk was planned. Old-timers gave gratuitous advice as to the dangers of sunstroke and the importance of hats (preferable two, one on top of the other) or topi. To my dismay Kees soon flouted it and right he was I must admit. We were delighted with the beautifully flowering Lantanas and especially the Melastomas, and awed by the terrific noise of the cicadas. It was only a foretaste of the years to come.

At Tandjong Priok we were met by Dr. J. G. B. Beumée, the Head of the Herbarium, who easily succeeded in spotting us on account of the vasculum Kees was wearing over his shoulder. As a matter of fact it was never used, the vasculums in Java being about four times its size.

We soon settled down at Buitenzorg (= Bogor, the Sundanese name), but it would be a lie to say that Kees felt perfectly happy. For him it was frustrating to be surrounded by a wealth of plants unknown to him, the more so as he had skipped 'kaswandelen' (visiting the hothouses under guidance) at Utrecht. The late Prof. Dr. B. H. Danser, then one of his colleagues and a very dear friend, suggested the collecting and drying of plants in the vicinity. This proved to be an excellent method through having to handle them many times, and learning to recognize them in the meanwhile. In general the discussions with Ben Danser were extremely stimulating and important for his growing interest in theoretical botany, which had already been awakened at Utrecht by reading the works of Darwin, Naegeli, de Vries and others.

The Director of the Botanic Garden, Prof. Dr. W. M. Docters van Leeuwen, was a good field biologist; in the field he felt in his element. It was he who took Kees on walks in the Garden and on excursions, to initiate him into this foreign botanical world. When Docters van Leeuwen visited the Singapore Garden on an official tour early in 1928, he arranged that Kees could join M. R. Henderson's tour to the Anambas and Notoena Islands, his first expedition. It was less nice when he came round on New Year's Eve 1929 to tell the younger staff members that there was a good chance of the men being dismissed or placed on half-pay because of the slump. Fortunately natural gradual discharge and pensioning off solved the problems for most of us, albeit with a decrease in salary.

Kees's interest in the vegetation as a whole brought him into contact with many foresters, among whom Dr. F. H. Endert had a large influence on his conceptions.

Officially Kees had been appointed at the Museum of Economic Botany, but from the outset his work was in the Herbarium (falling under the Botanic Garden) under Beumée. Beumée, a forester by education, was a capable man with a wide knowledge of plants, and in the long run (long after he left the Herbarium) he clearly showed his appreciation of Kees's work, but the first years were far from easy. Unlike the other botanists of the institute, Bakhuizen van den Brink Sr, Lam, van Slooten, and Danser, his main work was not to be the revision of a family, but the identification of collections. At the time Kees was not too pleased, although he will admit by now that it laid the base of his extensive knowledge of plant form. To enlarge his knowledge and to check e.g. the localities of mountain plants, he often worked in the Herbarium during afternoons, a procedure which was met with suspicion. There never was a word of appreciation for the Anambas & Notoena collections, 800 numbers collected in less than three weeks, possibly because Docters van Leeuwen had arranged the expedition over Beumée's head, but it stung.

In 1931 Dr. D. F. van Slooten succeeded Beumée as Head of the Herbarium Bogoriense. Kees and Fok were in most respects disparate in character, but co-operation gave hardly any difficulties.

Interest in plant geography, ecology and taxonomy was furthered by extensive field work (including the Leuser Expedition in 1937), and revisional herbarium studies. Many were the times that he led excursions of the Natural History Society at Buitenzorg, and he held positions on the board of the Society for Nature Preservation for several years. The redaction of the botanical part of 'De Tropische Natuur', reports on Nature Preservation, and of the 'Natuurwetenschappelijk Tijdschrift voor Nederlandsch Indië' gave him the experience for later editorial work. From 1931—37 he was a representative in the Dutch East Indies of the 'Vakblad voor Biologen'.

Whoever thinks that all these activities were possible thanks to an iron constitution, is wrong. After some years at Buitenzorg Indian sprue forced Kees to give up vegetarianism and to live on a very strict diet for three years; after European leave (1934) it was hookworm which took toll, and about 1939 he was attacked by malaria tertiana with many

returning bouts. But on the one hand soon out of heart, on the other his old vitality was quick to assert itself. Periodical migraine is still a recurring complaint.

From 1928 onwards he developed a plan towards a Flora Malesiana. In 1939 the preliminary preparations had been made and he found an enthusiastic supporter in the then Director of the Garden, Prof. L. G. M. Baas Becking, a man of quick discernment and extraordinary intelligence. With the latter's friend Dr. H. J. van Mook as Head of the Department, the project was accepted by the Dutch East Indian government. It was evident that it would be a life-work, and a full professorship in the Faculty of Agriculture at Buitenzorg was declined.

The war was to hold up the start for some eight years. With Java not yet involved, Frans Verdoorn wrote an urgent letter to persuade us to come to the United States, but Kees never gave it a thought. Before the Japanese invasion, March 1942, he served as a 2nd lieutenant of the coastal artillery near Batavia, and had to retreat with the army, soon followed by surrender and internment in a P.O.W. camp at Tjimahi near Bandung.

Ships with Japanese scientists were on their way to Java to man the institutes, but were torpedoed by the allies (as we heard much later). Then it was decided that part of the European staff members (virtually all of them having been incorporated either in the army or the civic guard) were to go back to their work. On August 13, 1942, some thirty people, mostly of the experiment stations, including Kees, came back to Buitenzorg by order from Tokyo. Freedom at first, but not for long. Kees joined us in the house of old friends, the Hardon family, where we had set up a kind of community to be better able to cope with the unpredictable future circumstances. At that time we were nine in all, five grown-ups and four children (one was ours: Hein, born in 1930).

In December there was a raid of the Kempetai (the Japanese Secret Police); both Henny Hardon and Kees were arrested during the night, and carried off in their pyamas and on bare feet. The house stayed under police-surveillance for some weeks, but nevertheless we got a note that they were in the Buitenzorg jail. It took some weeks before we were allowed to bring some clothes, a thin camping mattress and once a week some food and cigarettes. It was to be four months in jail, not a pleasant experience. The reverse side was the necessity for close contact with Indonesians, as every European or Australian prisoner was put in a common cell with some seven Indonesians, all of them suspects of minor or major civil offences. From the outset everything was shared, from mat (tiker) to cigarettes and extra food; the enforced community took barriers away and gave more insight into Indonesian mentality and life than years in the colonial society.

In April 1943, Prof. R. Kanehira, who by then had taken over directorship of the Herbarium from van Slooten, succeeded in getting Kees free for botanical work once more. Shortly after that the Dutch P.O.W. scientific workers were interned in a small camp, going daily to and from their institutes under a Japanese military guard.

Work at the Herbarium was in general peaceful. No responsibility, no letters to write or answer, nothing but botany. In the beginning of the Japanese occupation van Slooten had been able to get me an appointment in the Herbarium for my work on the Cyclopaedia of Collectors, volume I of Flora Malesiana. In this way, for two years, Kees and I came daily from different camps to the institute, albeit to work in different buildings and with a ban on contact, a verdict taken with a pinch of salt, but occasionally underlined by the searching of our work-rooms and houses by the Kempetai.

It took some months after the end of the war, August 1945, before most families were reunited, in so far as they were still alive, Times were confusing, Indonesian flags were hoisted, the Japanese by allied order had to take command again, British Gurka troops were followed by British Indian, and later by Dutch ones, but more people were in

camps than during the war, as the Eurasians came there for safety. As a RAPWI officer Kees was doing all kinds of work, e.g. as Head of a meat factory in Batavia, and from October serving as a caterer and undertaker in the civilian camp at Buitenzorg.

In December British troops occupied the Botanic Garden and Baas Becking being busy in Batavia and West Java, Kees was temporarily put in charge of rehabilitation till July 1946. We moved into a curator's house in the garden with five others, our son Hein having left for Holland as a working passenger on the 'Oranje'. At night bullets ricocheted in the gravel round the house, in daytime Kees went to the Herbarium and worked with a pistol on his desk in Indonesian-occupied territory. In the Garden, Cootje Ruinen and he tried to prevent the Indians from giving their rifles as payment to prostitutes, from leaving their arms carelessly on the grass when washing their cars, and all the successive troops from stealing microscopes and other things belonging to the Treub Laboratory and Herbarium.

After twelve continuous years of life in the tropics, it was high time for foreign leave, and in July we were repatriated, Kees being commissioned to make contacts abroad, and to develop the Flora Malesiana scheme. Fortunately the greater part of his private library and his manuscripts had been safe in the Herbarium buildings and could be taken home.

He was stationed for three years in Holland; in 1947 a daughter, Liesbet, was born. Professor H. J. Lam, with whom we were hardly in contact at Buitenzorg, opened his heart and the doors of the Rijksherbarium, offering working facilities in the already overcrowded building.

Flora Malesiana Bulletin was started in July 1947, while in 1948 the first part of the Flora appeared. In 1949 we returned to Bogor, just before sovereignty was handed over to the Indonesian government. The latter adopted the Flora Malesiana plan as it was, thanks to Drs. Hermen Kartowisastro and Prof. Ir. Kusnoto Setyodiwiryo. The Foundation became a fact on October 21, 1950, and Kees was appointed Director and General Editor of the Flora. Soon after, we returned to Holland with a promised generous yearly budget which made it possible to attract co-operators. C. A. Backer, P. Jansen, and others worked on a grant; J. Zeylemaker (administrator), Jeanne van Puffelen (typist), Dr. H. C. D. de Wit, R. Hoogland, Dr. R. C. Bakhuizen van den Brink Jr, Ruth van Crevel (drawing), J. H. Kern, Dr. H. Sleumer, P. W. Leenhouts, M. Jacobs, and Dr. Ding Hou, at some time followed. Again Herman Lam, ex officio one of the trustees of the Foundation, opened the doors of the Rijksherbarium and was a most generous host. Several of the earlier collaborators got an appointment in the Herbarium. A bright future seemed ahead, honours followed such as special (part-time) professorships at Amsterdam (1951) and Leyden (1953), foreign membership of several learned societies, an honorary doctorate at McGill University at Montreal (1959), and the Dutch Order of the Nederlandsche Leeuw (1961). It was a complete surprise for him when the burgomaster of Oegstgeest came in the early morning of April 29, to fulfil the duty of handing him the latter decoration with a speech. Having been shown in he started to introduce himself, only to be immediately cut short by Kees's reaction: "Sorry, I have no time, I have to go to my work, but my wife will see to you", before knowing the reason for the visit.

In December 1957, however, security had come to an abrupt end, as Indonesia stopped payment because of the Irian question. Numerous were the letters sent out to foreign Funds, but no American or English interests being involved, it appeared useless. It was Z.W.O. (Netherlands Organization for the Advancement of Pure Research) in The Hague which brought relief in October 1958. The staff, except for the administrator, was taken over for some years and in those years successively by Leyden University, to be incorporated in the Rijksherbarium.

Through all those years it had been possible to remain in contact with Bogor, and to send them the 300 copies of each instalment to which the Indonesian Government had been entitled under the original contract, of the published parts of the Flora. It was a happy day when some years ago the Indonesian government voluntarily took up their responsibility once more and regularly forwarded money to meet the expenses that had been involved.

In 1962 Kees was asked to succeed Herman Lam as a full-time professor. It would mean the postponement of volumes 2 and 3 of the Flora, respectively on physiognomy and plant geography, for at least ten years. On the other hand, Leyden with its enormous collections from the Malesian region was attractive, and as a Director of an Herbarium one has possibilities not given to guests. The die was cast. Now, after ten years, this period comes to an end, and I think that everybody will agree that it was a tremendous task to combine the professorship with the directorate of the Herbarium, and the leader- and editorship of the Flora Malesiana project. It would not have been possible without the co-operation of the staff, for instance, for the new housing of the institute with all its fuss and bother, the editing of *Blumea*, and the seminars. Many have been the contacts with members of expeditions, foresters, missionaries, ethnographers, etc. who were stimulated by a ready response and by the preliminary identifications of their plant collections from out of the way places in Malesia, which have enriched the institute.

University organization and regulations being on the move, with meetings being the order of the day, I think it is a good thing that a younger man will take over, and leave Kees to his work on the general volumes of the Flora, although it will not be so easy to step aside.

Easy, well it is hardly in his nature to take things easy. An easy-going man could never have performed what he has. It required vision, drive, confidence in his own capabilities, a well-defined purpose, and time for realization. Realization, well in this case a word hardly appropriate, as one man's span of life is not nearly enough to see the end of the Flora. It will be the work of several generations, but it was worth the effort to set the work in motion, and put it on a sound basis. To have ambitions, not on a personal level, but for a certain project, implies a certain autocracy, a dirty word nowadays, but with its eradication the world would certainly lose colour, and mediocrity would be the winner. Kees's exacting mentality tends to driving his collaborators, though he will never ask more than he gives himself. Biting criticism as an editor, and outbursts (soon forgotten or regretted) in general must have hurt many times. But then his criticism or praise will be without respect of persons and a true interest in the life of others is always present, while a request for help will always be met.

His instant contact with little children is one of his typical features, but he has made no disciples among them. His own offspring is averse to botany, although never pressed into a certain direction.

What strikes me time and again is his complete indifference to criticism of others with regard to his scientific work. The land-bridge theory, rejected by most botanists, is for him a certainty which will in time be acknowledged. On the other hand he will mostly submit his manuscripts to colleagues and even to me for discussion and remarks.

Of his catalysing qualities I myself am an example. When Kees went on expedition to Atjeh in 1936, he handed me a bunch of notes on botanical collectors in the Malesian area with the suggestion that I should continue what he thought to be in my line, and I can testify that I never regretted doing it!

Writing a true to life biography of a living person is a somewhat ticklish affair and the more so when it concerns one's husband. There may be a rod in pickle for me, or at least a remark: 'You ought to have given me the manuscript for correction'!

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