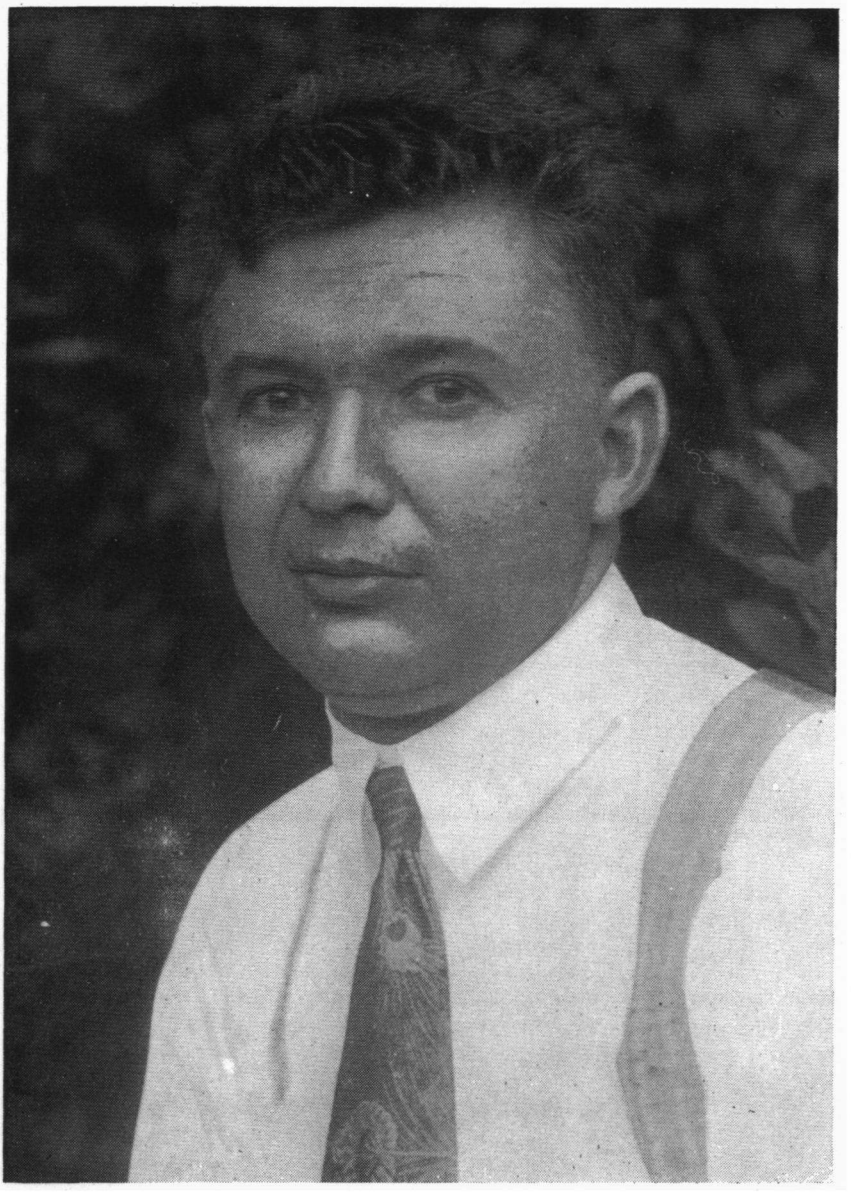


Dedicated to the memory
of B. H. DANSER

DEDICATION

It is not without some pride and much satisfaction that the present volume, fourth planned in the series, second in sequence of publication, is brought to a successful end.

Satisfaction I feel through the fact that the scheme and aim of this work is not only understood by the scientific-botanical world, but has also been accepted in the administrative world: Notwithstanding the long term scope of the work, the High Government of the Republic of Indonesia, having realized the essential value of basic scientific work in the natural sciences for the welfare of the future generations of its young nation, has been instrumental in authorizing the Director of Kebun Raya Indonesia (Botanic Gardens of Indonesia, Bogor) to create a Flora Malesiana Foundation. Sponsored by the Indonesian Government, this Foundation knits together the work and interest of the Herbarium Bogoriense of Kebun Raya Indonesia and the Netherlands Rijksherbarium at Leyden, the direction of which have officially agreed to a long-range close co-operation.

The legal marriage in old age of these two institutes, together possessing more essential Malaysian collections than any other two institutes in the world, has, speaking metaphorically, not been wholly barren for their offspring is this child: Flora Malesiana. Both parents are tending it and giving to it all the time they can spare from their daily duties.

The *pride* I feel is due to the fact that so many experienced colleagues agreed to collaborate in the present work and that they belong to so many different institutes in so many countries as a team of workers in whose contributions nothing but goodwill is reflected in the international mirror of our scientia amabilis.

This goodwill is, in my opinion, to be attributed in no small degree to the set-up of the work: *concise*, *critical*, *original*, and *international*. Works of immense magnitude, like this Flora, are only of importance if they can reach a high-degree of precision. Such meticulous attendance to detail can only be attained by competent, that is, experienced workers who love their trade. And though a century ago one of the Makers of Botany, like a ROBERT BROWN, a HOOKER, or a BENTHAM, might have been able to accomplish such a work under very favourable conditions, as a single person with the help of a few eminent associates, in a single institute, it seems to me that this possibility is now beyond the capacity of any single person under present conditions. A work like this can only be accomplished within a reasonable period by close international co-operation.

Fortunately, it has appeared, during the few years that this Flora has been under way, that its appeal touched a string in international feelings and that the international scientific world shares a pride in its being a product of international science.

About 40 institutes all over the world—and all big herbaria containing an appreciable amount of Malaysian material are among these—have agreed to put their Malaysian collections at the disposal of the revisors and several among them deem it an honour to have staff members actually collaborating, taking a share in the undertaking. These privileges are so large that Flora Malesiana can never cherish any hope of rewarding them in any other way than by putting, in return, its services and resources at the disposal of the institutes, including the work itself, the literature which it creates, and by taking the most meticulous care in having the sheets of these institutions critically identified. In addition, every institution has a certain moral claim of participation in the realization of the work. May the world be at peace long enough to see it completed!

Flora Malesiana enjoys an equally great privilege from the confidence of a great number, over 50, of individual collaborators, who are similarly dispersed throughout the world. In the final instance, the standing of the work is dependent on the care and devotion they have spent and will spend on their work.

Phytography in the narrow sense is not a particularly difficult branch of the natural sciences but it is a very time-consuming one. Besides a *love* and *esteem* of the métier it requires a *memory* for forms, great *patience* and *care*, a never ending *self-criticism*, continuous concentrated *observation* of details, a great *tenacity* for mastering the facts both as regards specimens and literature, as well as a *balanced* and *unprejudiced character*. Sound judgement and creative output depend largely on experience and zeal and will develop automatically if the combination of the above-mentioned necessary qualities of character are present. It appears to me more and more that to be a trustworthy phytographer is largely a question of psychology and less so of education and circumstances. For the output, the amount of printed work, besides of course working facilities and time, balance of character is sometimes the decisive factor, and its absence

will lead to self-sterilization if the aim is set towards too many subjects at a time or towards an unreasonably high percentage of completeness. Striving after perfection may sometimes be a serious drawback to the quantity of production. Experience shows that it is impossible to reach 100% perfection: the curve evolving from the degree of completeness set out against the time necessary for the accomplishment shows a parabolic shape, and indicates that a reasonable ceiling is reached at possibly 90 to 95% after which it does not pay to proceed much further, by the law of diminishing returns.

My impression is that, if such a percentage can be maintained, Flora Malesiana will be at least as sound a basis for Malaysian botany, as the Flora of British India was at its time for the flora of the Indian tropics, and that it will represent a reasonable basis for a century to come.

As far as this volume and volume one are concerned, practical work with it up to now has shown that it contains no major defects, and the list of addenda and corrigenda is no greater than might reasonably be expected. I trust the future will show that this judgement will hold and no higher tribute can be expected by the collaborator than that his work is a useful tool for future generations.

Until now I have deliberately refrained from mentioning names of persons intimately connected officially or unofficially with the history of this Flora. So many persons have contributed that if I live long enough I may, some time, in the future, devote an essay to this interesting subject which forms the background of the genesis of Flora Malesiana.

But I will make an exception for one of them here, namely for my late friend Dr B. H. DANSER, to whose inspiring interest the set-up of this Flora is mainly due and to whose memory this volume is accordingly dedicated.

When in December 1927, I was appointed on the staff of the Botanic Gardens at Bogor, I had the particular privilege of joining a circle of senior, experienced colleagues who, all of them, were prepared to help a newcomer in their different ways.

They probably did not realize how much they contributed to the rounding off of my academic education and how much I borrowed from them during daily contacts when they, unconsciously, generously poured forth their knowledge. The embarrassment of a junior only acquainted with a small portion of the northern temperate hemisphere on changing his site to the rich tropical flora was easily overcome by the privilege of being initiated so rapidly and in such a pleasant way.

There was an immense advantage in working under these conditions in a centre like Kebun Raya Indonesia with its large, rich, living and preserved collections, its big library and other facilities, and its multifarious activities.

It was extremely fortunate for me that I had a room next to that of DANSER and it was with him that I had the most intimate contact for nearly two years.

BEN, as he was called by his intimate friends was a charming and gifted person. Privately he appeared devoid of social ambitions and averse from exercizing authority. He pitied people who dealt in commonplaces. Speaking freely with his intimate friends he surprised us often with the most daring opinions and visions and did not care a damn about 'public opinion' with which he was disgusted: a free-thinker in format. Lively, intelligent, versatile, straightforward, unconvential, with a profound erudition, he had during argument—which he loved—a particularly kind and modest but still strongly convincing manner, flavoured by gesticulation. This often turned his talks, imperceptibly, into an interesting teaching to which I more listened than contributed. He always gave more than he received and what he gave was part of himself; he emptied himself, so to say, in a most unselfish way.

BEN was perfectly well aware of his educational gift and it is quite certain that he intentionally chose, in conformity with his style of life, a very artistic, clever book-plate, designed by Jordaan, showing a dancer, in ecstasy of the joy of life, lavishly scattering flowers and leaves. He confided to me that he took great pleasure in contact with his juniors and in teaching scientific botany, and that, as a matter of fact, his ideal was to be a professor of taxonomic botany. Quite unexpectedly, luck served him later and proved him to be the right man in the right place. Notwithstanding the fact that his versatile character ill fitted the rather stiff, uncommunicative North Netherlands mentality, he felt quite at ease at Groningen University and made himself a beloved professor, who gradually attracted various excellent students to taxonomy, a branch of botany until then untaught at Groningen and one which is, on the whole, apparently of not much appeal to students.

The outstanding quality to which he owed this success was his sincere interest in each student individually and the tact with which he treated him in accordance with his ambitions, his capacities, and his natural inclination towards scientific subjects. Everybody felt at ease with him through his simplicity, his willingness, his kindness, his wide interest and his vast knowledge.

Though he and I were of very different character, in various points even contrasted, I felt we fitted excellently together as we shared a high esteem for our métier, both practically and theoretically. His open character, treating everybody as his equal, his great energy and enthusiasm, the precise way in which he tried to make a cautious approach to essential things in systematic botany within his limits and powers of thinking, his despite of the copying of thoughts and statements without having them verified, his contempt for superficiality, his passion for essential facts, and his lack of prejudice, these all made him an ideal taxonomist, whose achievements in taxonomic botany would have been unique, had he lived long enough.

During these early years we discussed my vague plans for a general flora of the Netherlands Indies and he agreed that any delimitation of it by political frontiers would be a most disturbing factor from the technical-scientific point of view. He advised me to start in my free time, as a kind of exercise, with a small, concise local Flora for the 'Flore de Buitenzorg' series, initiated by TREUB at the end of last century. No doubt the background of this idea was to get me acquainted with techniques and floristics. As a matter of fact I followed his suggestions by making a private local herbarium and the idea proved fruitful for our later 'Flora for the schools in Indonesia' (1949). The discussions on the general Flora still occupied our mind when he left for Europe, at the end of 1929, and we continued to correspond on the subject until the war made further contact impossible. About 1936 I composed sample treatments of some small families which our friend VERDOORN had printed for the purpose we had in mind. In general this scheme was approved, but we differed on three rather important points in the scope and design of the work which—in principle—was approved and pushed forward by the later director of the Gardens, Prof. Dr L. G. M. BAAS BECKING. DANSER advocated a Flora limited to the Netherlands Indies, while my plant-geographical experience told me that this was a much too artificial boundary. He wanted the Flora with a very concise text along the lines of the Flora of British India, while I was more inclined to follow the more laborious method of the 'Contributions à l'étude de la Flore des Indes Néerlandaises'. Thirdly he suggested that editing and printing should be done in Europe. In the main points the facts have shown that he was right, though in actuality there has been a kind of intermediate result. This shows how difficult it is, even for insiders, to formulate a plan for a work of such a size, and that it should gradually mature through continuous thought and experience until its proposed shape attains a certain stage at which we are satisfied that we know what we want.

It shows also that one should be prepared to change or modify an idea and be entirely unprejudiced. DANSER was in this far more adaptable and his private letters show time after time his great patience with my stubbornness. As to the first point, I had, during the war, a particular advantage in being able to work out generic plant distribution in Malaysia and as a matter of fact my instinct, born of experience and field work, showed that any natural delimitation of Malaysia must embrace countries adjacent to Indonesia. I am convinced that DANSER, if he had known the facts, would have agreed on this point. The fact that he had mostly limited himself in his work at Bogor to herbarium research was partly responsible for his opinion. And this was caused again by his rather feeble strength which—though he liked field work—did not allow him to perform strenuous trips for longer periods and to learn to appreciate ecology and floristics. He had a great admiration for those who could do so.

As to the second point, I believe the outcome was that we made concessions on both sides, and again I am convinced that he would have appreciated the present satisfactory compromise. In the third point I was certainly wrong in my weighing of the balance. In the relatively isolated scientific position of one in the tropics—and this holds for other countries far remote from the centres of learning in the Northern hemisphere—most people inevitably overestimate what can be attained; due to the absence of comparable situations, the absence of enough constructive criticism, the idea that the man on the spot is the centre of the universe and is certain of the most sound judgement—which, it is true he often has in certain respects—, and to a certain self-sufficiency. It is no use denying these very human reactions and I am quite prepared to admit that I myself did not fail to react more or less along the lines indicated during my prolonged stay in Java. It was only after the war, that numerous personal contacts in various parts of the world showed me that there was no other way than that of the international co-operation DANSER had stood for, necessitating a separate branch in Europe.

The most important promise DANSER made to me was an agreement to act as joint editor of the Flora, and our plan was that he would co-ordinate the work in Europe while I would remain in Java. Unfortunately his untimely death changed all this, and I had to consider whether to carry on alone or to abandon the whole plan. I risked the first and had to readjust the execution of the work. I miss him most dearly, not only because he was an irreplaceable key person for

the work, but more especially because the loss of his kind devotion, his tolerant criticism, his valuable advice, and his trusted friendship leave a gap I cannot hope to fill.

BENEDICTUS HUBERTUS DANSER was born at Schiedam, Holland, May 24th, 1891, as the seventh child of a family of six elder sisters and a younger brother, the latter a gifted poet who died very young. At his secondary school he already felt an interest in biology and came into contact with two renowned Dutch amateur botanists, the late Dr W. H. WACHTER and our present revisor of the Gramineae, Dr P. JANSEN, who encouraged him in his botanical study. According to the biography they jointly wrote,[1] DANSER preferred zoology, especially insects, and more particularly butterflies, but he hated killing them and this induced him to take to botany. His love for music fitted well with his determined but gentle character; he possessed a big collection of gramophone records of classic music and in 1942 even took to playing the viola da gamba in a quartet. In his final examination at the secondary school he got the highest figure possible for Natural History. After that he became temporarily engaged as a teacher in a primary school. Unfortunately his feeble health soon revealed itself and he contracted tuberculosis which necessitated later (about 1920) a prolonged stay in a health-resort. This time he spent energetically in mastering the classic languages. He succeeded in 1913 in sitting for the State examination, necessary to enter the university under the then current regulations.

He entered Amsterdam University as an assistant of HUGO DE VRIES, later serving under THEO J. STOMPS. His main studies at Amsterdam were directed towards experimental taxonomy with the *Polygonaceae*, specially with adventive *Rumex* species and their hybridization. This subject had already interested him in his early days when he was a teacher in the primary school. His attention had been drawn to the *Polygonums* by a copy of a key prepared by his senior colleagues JANSEN and WACHTER. Apparently he tried to satisfy himself about the variability of species: at Kralingen he rented an allotment garden for cultivating *Polygonums*. As his neighbours were most curious about the new vegetable, but were soon expecting their gardens to be overrun with the results of DANSER's experiments, they threatened to bring an action against him, but soothing words and an open air lecture on seed dispersal warded off the danger and made it possible for him to continue the experiments for several years. The experimental side of taxonomy always remained one of his major interests. He shared LOTSY's views on the great significance of hybridization for speciation, without being prejudiced with reference to other means and ends of micro-evolution. In Java also he could not leave the subject alone and proceeded to cultivate and hybridize the 4 then ill-recognized species of *Stachytarpheta*. The fact that he worked both in the *Polygonaceae* and in *Stachytarpheta* with well-delimited species (commiscua) yielding only sterile hybrids, caused him to regard this as the normal case. Consequently he advised taxonomists, as early as 1924, to adjust specific delimitation as much as possible to that of commiscua. The concept *commiscuum* is—possibly—the most important one of the three he invented and defined, *viz* comparium, commiscuum and convivium, though the others are indeed quite useful. I am sure they will gradually find universal recognition in experimental taxonomy by their simplicity, and unambiguous definition.

At Groningen he continued further with the subject and various studies with Netherlands plants executed by his students were under way at the time of his death.

His career at Amsterdam was a busy one. He continued his systematic and experimental-taxonomic work on *Polygonaceae*, on which family he published a great number of papers, illustrated by drawings which he prepared himself. He became a custos and a honorary lecturer in taxonomy (1925), besides teaching natural history at a secondary school at Haarlem. However, he had no real pleasure in teaching either at a primary or a secondary school, as his interest lay mainly with grown up youths and adults. He took his degree as doctor of science at Amsterdam in 1921, on a thesis entitled 'Contribution à l'étude systématique du Polygonum lapathifolium' for which he received honours.

In the same year he was awarded the Netherlands Buitenzorg Fund and went to Bogor. After the Buitenzorg Fund term was over he accepted a temporary post in the Herbarium Bogoriense. Though urgently asked he did not want it to be permanent, partly on account of the dubious health of his wife whom he had met during his own cure, and who had, in contrast with himself, never wholly been cured. Moreover, he wanted to remain free in his choice where to settle.

DANSER enjoyed his work in the Botanic Gardens and worked very hard; many an afternoon one could find him in the Herbarium. He finished the *Polygonaceae* in one year, followed by the *Nepenthaceae* accomplished in the same time, and then he plunged into the large mistletoe family,

(1) Ned. Kruidk. Arch. 53 (1943) 129–136, bibl., portr.

encouraged by the then director of the Gardens Dr W. M. DOCTERS VAN LEEUWEN who worked on the flower biology of this group. This he felt was a worthy job for a taxonomist and his judgment led him to find a satisfactory distinction of genera, one lying midway between the rather opposed views of ENGLER, SPRAGUE, BLAKELY, etc. advocating a very large concept of *Loranthus* and the opinion of VAN TIEGHEM, who had split the genus into many dozens of micro-genera. I was a witness of the gradual progress of this work and found it a privilege to be asked sometimes to dissect the linear buds if BEN's nervous hands were not able to perform the operation. I strongly believe that he cleaned the Augean stables in this most interesting family as to the Old World representatives in a most satisfactory way. As he was quite convinced of the soundness of EICHLER's excellent work on the New World representatives, he thus contributed to pave the way for a world revision of this family.

As often as possible he made small, easy excursions to various parts of Java collecting *Loranthaceae* in the field. We often went together for this purpose. A small herbarium resulted from these excursions and is now preserved at the Botanical Laboratory of Groningen University.

In 1929 misfortune struck him, as his wife again fell a victim to her former illness; Javan health-resorts did not cure her and she was transported as swiftly as possibly to Switzerland where she died at Davos before he could reach her.

He afterwards visited some European herbaria to finish his revision of the *Loranthaceae* and accepted a post as assistant of Dr J. C. SCHOUTE, the professor of morphology at Groningen University, in 1931. A year later Prof. SCHOUTE retired and DANSER accepted the chair, for which he was so well suited, as already indicated above. In his own time he continued the study of the *Loranthaceae* and gradually started work also on other families, *Cornaceae*, *Santalaceae*, and finally the *Coniferae*. He also succeeded in attracting students to work on other Malaysian groups and several excellent theses were produced (BUWALDA on the *Umbelliferae*, BLOEMBERGEN on *Alangium*, WASSCHER on *Podocarpus*).

As in everything he did, he took great care in preparing his lectures; he varied and improved them continuously. His love of classic languages induced him to devote a special lecture to botanical Latin.

As mentioned before he once more became interested in Netherlands plants and in their experimental taxonomy and various studies were on their way when the war broke out. It was natural that he should join the redaction committee of the Flora Neerlandica, a new work planned by the Netherlands Botanical Society and perform part of the execution of the work at Groningen.

He remained very much interested in the theory of plant taxonomy, and he wrote several papers on this subject, excelling through their clear, methodological style.

His unexpected death by cerebral haemorrhage deprived Botany of one of the most brilliant Dutch taxonomists. Flora Malesiana owes to this most prominent and devoted collaborator more than to any other person.

He is survived by EMMY his (second) wife and 3 children in whose memory the picture of the beloved husband and father will remain vivid for ever.

BIBLIOGRAPHY OF DANSER'S PAPERS ON MALAYSIAN BOTANY

1926

De Polygonum-soorten der theetuinen op Java (Meded. van het Proefstation voor Thee, *no* 98: 19 pp.).

1927

Die Polygonaceen Niederländisch-Ostindiens (Bull. Jard. Bot. Btzg III, 8: 117–261).
In memoriam Casper van Overeem (Bull. Jard. Bot. Btzg III, 9: 1–7).
In memoriam Dr C. van Overeem (Trop. Natuur 16: 57–58).
Indische Bekerplanten (Trop. Natuur 16: 197–205).
Polygonum-vegetaties in de tropen (Trop. Natuur 16: 28–35).
Polygonaceae (Nova Guinea 14^2: 333–336).
A revision of the Queensland Polygona (Proc. R. Soc. Queensl. 39: 23–42).

1928

The Nepenthaceae of the Netherlands Indies (Bull. Jard. Bot. Btzg III, 9: 249–438).

1929

Een paar algemeene Loranthaceeën (Trop. Natuur 18: 83–87).
Een nieuwe Viscum voor Nederlandsch-Indië (Trop. Natuur 18: 119–120).
On the taxonomy and the nomenclature of the Loranthaceae of Asia and Australia (Bull. Jard. Bot. Btzg III, 10: 291–373).
Ueber die Niederländisch-Indischen Stachytarpheta-Arten und ihre Bastarde, nebst Betrachtungen über die Begrenzung der Arten im Allgemeinen (Ann. Jard. Bot. Btzg 40: 1–44).

1931

The Loranthaceae of the Netherlands Indies (Bull. Jard. Bot. Btzg III, 11: 233–519).
Nepenthaceae (Mitt. Inst. Allg. Bot. Hamburg 7: 217–221).

1932

On some Rumex and Polygonum hybrids from Java (Bull. Jard. Bot. Btzg III, 12: 65–70).

1933

A new system for the genera of Loranthaceae Loranthoideae, with a nomenclator for the Old World species of this subfamily (Verh. Kon. Akad. Wet. A'dam afd. Natuurk. (2e sectie), 29, *no* 6: 1–128).
Thaumasianthes, eine neue Loranthaceengattung aus den Philippinen (Rec. Trav. Bot. Néerl. 30: 464–481).

1934

Miscellaneous notes on Loranthaceae 1–6 (Rec. Trav. Bot. Néerl. 31: 223–236).
The Loranthaceae of the Oxford University Expedition to Sarawak in 1932 (Rec. Trav. Bot. Néerl. 31: 237–247).
Miscellaneous notes on Loranthaceae 7–8 (Rec. Trav. Bot. Néerl. 31: 751–760).
The Cornaceae, sensu stricto, of the Netherlands Indies (Blumea 1: 46–74).

1935

& J. C. Mekel, Der Blütenstand und die Blüte von Korthalsella Dacrydii (Blumea 1: 312–319).
A revision of the Philippine Loranthaceae (Philip. J. Sc. 58: 1–151).
Loranthaceae collected in the Solomon Islands by L. J. Brass and S. F. Kajewski, on the Arnold Arboretum Expedition, 1930–1932 (J. Arn. Arb. 16: 206–209).
Vernacular names of Loranthaceae in the Malay Peninsula and the Netherlands Indies (Bull. Jard. Bot. Btzg III, 13: 487–496).
Note on a few Nepenthes (Bull. Jard. Bot. Btzg III, 13: 465–469).
Note on a number of New Guinea Polygonaceae, mainly collected by L. J. Brass in Papua on the 1933 New Guinea Expedition of Natural History (Bull. Jard. Bot. Btzg III, 13: 429–431).

1936

New Papuan Loranthaceae (Brittonia 2: 131–134).
A new Papuan Didiscus (Brittonia 2: 135–136).
Miscellaneous notes on Loranthaceae 9–15 (Blumea 2: 34–59).
The Loranthaceae Loranthoideae of the Tropical Archipelagos east of the Philippines, New Guinea and Australia (Bull. Jard. Bot. Btzg III, 14: 73–98).
Loranthaceae (Candollea 6: 457–459).

1937

A revision of the genus Korthalsella (Bull. Jard. Bot. Btzg III, 14: 115–159).
A new Amyema from Australia (Candollea 7: 242–243).

1938

Miscellaneous notes on Loranthaceae 16–18 (Blumea 3: 34–59).
The Loranthaceae of French Indo-China and Siam (Bull. Jard. Bot. Btzg III, 16: 1–63).

1939

The dates of publication of Blume's Flora Javae (Blumea 3: 203–211).
A revision of the genus Phacellaria (Santalaceae) (Blumea 3: 212–235).

1940

Miscellaneous notes on Loranthaceae 19–24 (Blumea 3: 389–404).
On some genera of Santalaceae Osyrideae from the Malay Archipelago, mainly from New Guinea (Nova Guinea, new ser. 4: 133–149).
Additions to the Loranthaceae of Siam (Bull. Jard. Bot. Btzg III, 16: 253–267).
A new Nepenthes from Sumatra (Bull. Jard. Bot. Btzg III, 16: 268–271).
Note on the Muehlenbeckias of New Guinea and Queensland (Bull. Jard. Bot. Btzg III, 16: 324–328).
A supplement to the revision of the genus Korthalsella (Bull. Jard. Bot. Btzg III, 16: 329–342).

1941

Miscellaneous notes on Loranthaceae 25 (Blumea 4: 259–260).
The British-Indian species of Viscum revised and compared with those of South-Eastern Asia, Malaysia and Australia (Blumea 4: 261–319).

1942

Loranthaceae (Blumea 5: 177–178).

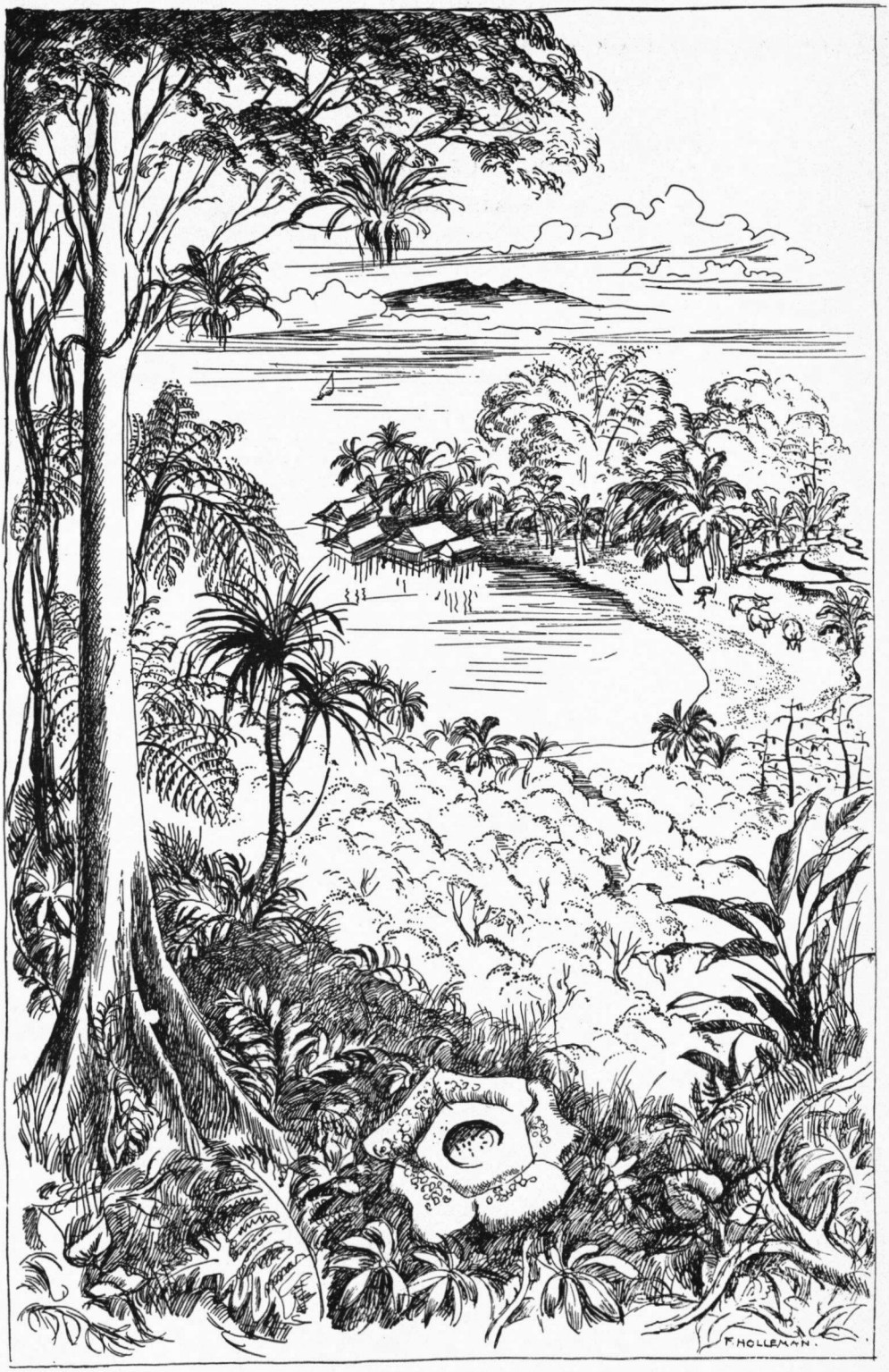
? 1954

Supplementary notes on the Santalaceous genera Dendromyza and Cladomyza (Nova Guinea, new ser., in the press, 14 pp. 9 pl.).

C. G. G. J. VAN STEENIS

acc. = according
Ak. Bis. = Aklan Bisáya (Philip. language)
Alf. Cel. = Alfurese Celebes (language)
alt. = altitude
Anat. = Anatomy
Ap. = Apáyao (Philip. language)
app. = appendix, appendices
appr. = approximate
Apr. = April
Arch. = Archipelago
atl. = atlas
auct. div. = *auctores diversi*; various authors
auct(t). mal. = *auctores malayenses*; authors dealing with Malaysian flora
auct(t). plur. = *auctores plures*; several authors
Aug. = August
Bag. = Bagóbo (Philip. language)
Bg = Buginese (language)
Bik. = Bikol (Philip. language)
Bil. = Bilá-an (Philip. language)
Bill. = Billiton
Bis. = Bisáya (Philip. language)
Bon. = Bontók (Philip. language)
Born. = Borneo
Bt = Bukit; mountain
Bug. = Buginese (language)
Buk. = Bukídnon (Philip. language)
c. & ca = *circiter*; about
C. Bis. = Cebu Bisáya (Philip. language)
cf. = *confer*; compare
Chab. = Chabacáno (Philip. language)
cm = centimetre
c.n, see *comb. nov.*
comb. nov. = *combinatio nova*; new combination
c.s. = *cum suis*; with collaborators
cur. = *curante*; edited by
D (after a vernacular name) = Dutch
Daj. = Dyak (language)
Dec. = December
D.E.I. = Dutch East Indies
diam. = diameter
Distr. (as an item) = Distribution
Distr. (with a geographical name) = District
Div. = Division
div. = *diversus* (masc.); various
do = *ditto* (Ital.); the same
Dum. = Dumágat (Philip. language)
dupl. = duplicate
E = east (after degrees: eastern longitude)
E (after a vernacular name) = English
Ecol. = Ecology
ed. = edited; edition; editor
e.g. = *exempli gratia*; for example
elab. = *elaboravit*; revised
em. = *emendavit*; emended
em(erg.) ed. = *emergency edition*
Engl. = English
etc., &c. = *et cetera*; and (the) other things
ex auctt. = *ex auctores*; according to authors
excl. = *exclusus* (masc.); excluding, exclusive of
f. (before a plant name) = *forma*; form
f. (after a personal name) = *filius*; the son
f. (in citations) = figure
fam. = family
Feb. = February
fide = according to
fig. = figure
fl. = *flore, floret* (*floruit*); (with) flower, flowering
For. Serv. = Forest Service
fr. = *fructu, fructescit*; (with) fruit, fruiting
Fr. (after a vernacular name) = French
G. = Gunung (Malay); mountain
Gad. = Gaddáng (Philip. language)
gen. = *genus*; genus
Germ. = German
ib(id). = *ibidem*; the same, in the same place
Ibn. = Ibanág (Philip. language)
ic. = *icon, icones*; plate, plates
ic. inedit. = *icon ineditum, icones inedita*; inedited plate(s)
id. = *idem*; the same
i.e. = *id est*; that is
If. = Ifugáo (Philip. language)
Ig. = Igorot (Philip. language)
Ilg. = Ilongót (Philip. language)
Ilk. = Ilóko (Philip. language)
in adnot. = *in adnotatione*; in note, in annotation
incl. = including, inclusive(ly); *inclusus* (masc.)
indet. = indetermined
Indr. = Indragiri (in Central Sumatra)
inedit. = *ineditus* (masc.); inedited
in herb. = *in herbario*; in the herbarium
in litt. = *in litteris*; communicated by letter
in sched. = *in schedula*; on a herbarium sheet
in sicc. = *in sicco*; in a dried state
in syn. = *in synonymis*; in synonymy
Is. = Isinái (Philip. language)
Isl. = Island
Ism. = Isámal (Philip. language)
Iv. = Ivatán (Philip. language)
J(av). = Javanese (language)
Jan. = January
Jr = Junior
Klg. = Kalínga (Philip. language)
Kul. = Kuláman (Philip. language)
Kuy = Kuyónon (Philip. language)
Lamp. = Lampong Districts (in S. Sumatra)
Lan. = Lánao (Philip. language)
lang. = language
l.c. = *loco citato*; compare reference
livr. = livraison, part
ll.cc. = *l.c.* (plur.)
m = metre
M = Malay (language)
Mag. = Magindanáo (Philip. language)
Mal. = Malay(an)
Mal. Pen. = Malay Peninsula
Mand. = Mandáya (Philip. language)
Mang. = Mangyán (Philip. language)
Mar. = March
Mbo = Manóbo (Philip. language)
Md = Madurese (language)
Minangk. = Minangkabau (a Sumatran language)
Mk = Makassar, Macassar (in SW. Celebes)
mm = millimetre
Mng. = Mangguángan (Philip. language)
ms(c) = manuscript
Mt(s) = Mount(ains)

N = north (after degrees: nothern latitude); or New (*e.g.* in N. Guinea)
NE. = northeast
Neg. = Negrito (Philip. language)
N.E.I. = Netherlands East Indies
N.G. = New Guinea
N.I. = Netherlands Indies
no = number
nom. = *nomen*; name (only) = *nomen nudum*
nom. al. = *nomen aliorum*; name used by other authors
nom. alt(ern). = *nomen alternativum*; alternative name
nom. cons(erv). = *nomen conservandum, nomina conservanda*; generin name(s) conserved by the International Rules of Botanical Nomenclature
nom. fam. cons. = *nomen familiarum conservandum*; conserved family name
nom. gen. cons. prop. = *nomen genericum conservandum propositum*; generic name proposed for conservation
nom. illegit. = *nomen illegitimum*; illegitimate name
nom. legit. = *nomen legitimum*; legitimate name
nom. nov. = *nomen novum*; new name
nom. nud. = *nomen nudum*; name published without description and without reference to previous publications.
nom. rej. = *nomen rejiciendum*; name rejected by the International Rules of Botanical Nomenclature
non al. = *non aliorum*; not of other authors
nov. = *nova* (femin.); new (species, variety, *etc.*)
Nov. = November
n.s. = new series
n.sp. = *nova species*; new species
n. (sp.) prov. = *nomen (specificum) provisorium*; provisional new (specific) name
n.v. = *non vidi*; not seen
NW. = northwest
Oct. = October
op. cit. = *opere citato*; in the work cited
p. = *pagina*; page
P. = Pulau, Pulu (in Malay); Island
Pal(emb). = Palembang
Pamp. = Pampángan (Philip. language)
Pang. = Pangasinán (Philip. language)
P. Bis. = Panay Bisáya (Philip. language)
P.I. = Philippine Islands
pl. = plate
pr. max. p. = *pro maxima parte*; for the greater part
p(r).p. = *pro parte*; partly
prob. = *probabiliter*; probably
Prov. = Province
pt = part
Res. = Residency
resp. = respective(ly)
S = south
S(d) = Sundanese (language)
Sbl. = Sambáli (Philip. language)
SE. = southeast
sec. = *secus*; according to
sect. = *sectio*; section
sens. ampl. (ampliss.) = *sensu amplo (amplissimo)*; in a wider sense, in the widest sense
sens. lat. = *sensu lato*; in a wide sense
sens. str. (strictiss.) = *sensu stricto (strictissimo)*; in the narrow sense, in the narrowest sense
Sept. = September
seq., seqq. = *sequens, sequentia*; the following
ser. = series
s.l. = see *sens. lat.*
S.-L.Bis. = Samar-Leyte Bisáya (Philip. language)
Sml. = Sámal (Philip. language)
s.n. = *sine numero*; (specimen) without the collector's number
Sp. = Spanish (language)
sp(ec). = *species*; species
sphalm. = *sphalmate*; by error, erroneous
spp. = *species*; species (plural)
Sr = Senior
s.s. = see *sens. str.*
ssp. = *subspecies*; subspecies
s.str. = see *sens. str.*
stat. nov. = *status nova*; proposed in a new rank
Sub. = Subánun (Philip. language)
subgen. = *subgenus*; subgenus
subsect. = *subsectio*; subsection
subsp. = *subspecies*; subspecies
Sul. = Súlu (Philip. language)
Sum. E.C. = Sumatra East Coast
Sum. W.C. = Sumatra West Coast
Suppl. = Supplement; *supplementum*
SW. = southwest
syn. = *synonymum*; synonym
t., tab. = *tabula*; plate
Tag. = Tagálog (Philip. language)
Tagb. = Tagbanúa (Philip. language)
Tagk. = Tagaká-ólo (Philip. language)
Tapan. = Tapanuli (in NW. Sumatra)
Tg = Tandjung (Malay); cape
Ting. = Tinggián (Philip. language)
Tir. = Tirurai (Philip. language)
transl. = translated
typ. excl. = *typo excluso*; type excluded
typ. incl. = *typo incluso*; type included
var. = *varietas*; variety
var. nov. = *varietas nova*; new variety
Vern. = Vernacular
vide = see
viz = *videlicet*; namely
vol. = volume
W = west
Yak. = Yakán (Philip. language)
± = about
& = and
♂ = male (flower, *etc.*)
♀ = female (flower, *etc.*)
☿ = bisexual (flower)
(♂) (♀) = dioecious with unisexual flowers
(♂ ♀) = monoecious with unisexual flowers
(♂ ☿) = polygamous
(♀ ☿) = polygamous
∾ = very many
> = diminishing (in size, number, *etc.*)
< = accrescent (size, number, *etc.*)
× 2/5 = 2/5 of natural size
× montana = means that the epithet montana is that of a hybrid


F. HOLLEMAN.

MEMORIAE

EORUM QUI SE FLORAE MALESIANAE PERSCRUTANDAE DEDERUNT

ET NOBIS DUCES ET EXEMPLA FUERUNT

GRATO ANIMO

HOC OPUS DEDICANT

AUCTORES