

**THE RIJKSHERBARIUM AND ITS CONTRIBUTION
TO THE RESEARCH ON THE NETHERLANDS
AND EUROPEAN FLORA**

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In the first decades of its existence the interest of the Rijksherbarium was certainly not directed towards the study of the Dutch and European flora. The initiative to embark on research of the flora of the Netherlands was born outside the walls of the institute. In 1845, R. B. van den Bosch initiated – elsewhere in Leiden! – the foundation of the ‘Vereeniging voor de Nederlandsche Flora’ (Society for the Netherlands Flora), later the ‘Nederlandsche Botanische Vereeniging’ (N.B.V.), to promote the knowledge of the flora and encourage the collection of plants for a ‘Vereenigingsherbarium’. This herbarium would house the main research materials for the composition of a flora of the Netherlands, which was the original target of the N.B.V.

The N.B.V. was to play a dominant role in the study of the Dutch flora. During the 150 years of its existence, the Rijksherbarium contributed significantly to studies of the Dutch and European flora in only three periods marked by the activities of, respectively, Suringar, Goethart (and Jongmans), and Van Oostroom (and Reichgelt). Moreover it must be remembered that these botanists were also involved in other studies during their employment at the Rijksherbarium.

Remarkably enough W. F. R. Suringar’s activity was greatest in the period preceding his directorship of the Rijksherbarium (1871–1898). From 1857 onwards he was curator of the Vereenigingsherbarium, which formed the basis for the first Dutch pocket flora, published by him in 1870. Immediately after assuming his duties at the Rijksherbarium he negotiated with the N.B.V. to move the Vereenigingsherbarium to his institute. His efforts were successful, contrary to earlier ones by his predecessor F. A. W. Miquel. Perhaps this was also because of the serious crisis which the N.B.V. went through at the time: the lecture commemorating the 25th anniversary of the N.B.V. in 1871 was attended by only 4 people! With a short interruption the herbarium of the N.B.V. has always been in the Rijksherbarium. This led to the peculiar situation that until 1912 there was no reason for the Rijksherbarium to build its own collection of plants from the Netherlands. The members of the N.B.V. donated by tradition their private collections to the Society and so the Rijksherbarium sheltered an important, ever growing collection. In 1948 collections of dried plants were donated to the N.B.V. for the last time: by Joh. Jansen (2519 specimens) and by C. G. G. J. van Steenis (2919 specimens). Now the Rijksherbarium itself is the grateful recipient of such donations.

Although Suringar must have been of great influence in botany in the Netherlands – he was president of the N.B.V. from 1881 until 1897 – his own contribution to the study of the Dutch flora was greatly restricted by numerous administrative duties. However, he created an atmosphere at the Rijksherbarium which was favourable for others (e.g. L. Vuyck), to carry out important studies of the Dutch flora.

His successor J. W. C. Goethart had a more direct influence on the study of the Dutch flora. He was a remarkable character, who combined an immense knowledge with much exaggerated self-criticism. Jansen and Wachter thus wrote in his obituary: 'Hence much of his work was published only when he had a friend beside him'. In 1887–1888 this was J. D. Kobus, with whom he continued the latter's publications on the Dutch *Carex* species, and in 1898 Vuyck, with whom he gathered all sorts of data on topographic maps of the Netherlands. Finally W. J. Jongmans was to co-author a first set of distribution maps of Dutch plants in 1902, inspired by 11 maps on the distribution of Dutch *Carex* species published by Kobus in 1886.

Until 1907 a total of 488 distribution maps appeared. Thereafter the production came to a halt for several reasons. The departure of Jongmans to South Limburg, where he was appointed to the governmental mining survey, must have been an important factor.

The inventory work for which Goethart in 1902 solicited the co-operation of floristic workers united in the N.B.V., was continued after 1907 by the latter only on a very limited and haphazard scale. The stimulus that the Rijksherbarium, i.e. Goethart, should have given was lacking. No doubt this also had something to do with the various developments within the N.B.V., which led to the removal of the Vereenigingsherbarium to the Colonial Institute in Haarlem from 1912–1925. In the twenties J. L. van Soest and W. C. de Leeuw revitalized the mapping work on the Dutch flora, and in 1930 Goethart even consented to pass on all data and materials concerning the 'Plantenkaartjes van Nederland' including the (copy)rights to an independent foundation, the 'Instituut voor Vegetatie Onderzoek van Nederland' (I.V.O.N., Institute for Vegetation Research in the Netherlands). However, Goethart himself (!) became the first president of this foundation, of which De Leeuw was secretary, and Jan G. Sloff the representative of the N.B.V.

Goethart's own interests mainly focussed on the Dutch flora, especially on problems of speciation through hybridization, a field of study pursued from earlier contacts with J. P. Lotsy. Adverse influences in the N.B.V. had induced Goethart and Lotsy to propose a splitting of the Society into a 'floristic' and a 'biological' division. Similar adverse forces were met by Goethart when he tried to acquire an experimental garden for his studies. In my opinion one should doubt whether it was only Goethart's 'extreme scientific modesty' (cf. Van Steenis-Kruseman, elsewhere in this issue) which prevented him from becoming the 'father of experimental taxonomy'. From all sources it appears that Goethart, himself, lacked the drive typical of a great man. It is significant that a year after his death the then staff members of the Rijksherbarium Miss J. Th. Koster and S. J. van Oostroom decided to create space by destroying an important part of Goethart's collections of mainly dried hybrid material which was poorly labelled and had suffered from insect attack. This action had the approval of W. A. Goddijn and M. J. Sirks, and created room for 122 (!) herbarium boxes.

Goethart's successor H. J. Lam found a 'rather sleepy repository of dried plants' (Kalkman, in his annual report of 1977). This would soon change. The relatively small staff of scientists was given more general tasks beyond the care of a special family. S. J. van Ooststroom, appointed in 1934, took an active part in composing the directives for reorganization. Miss Koster and Van Ooststroom sorted out collections of Dutch plants, requested by Lam for the re-establishment of international exchange. Through his expert knowledge of the Dutch flora, which Van Ooststroom had acquired in his student days – in 1936 he donated 6000 plants to the Rijksherbarium! – his participation in this task was automatically required. It was Van Ooststroom too who embarked on a treatment of the Pteridophytes for the Flora Neerlandica in 1942. This flora project was the result of a preparatory work by a committee chaired from 1940 onwards by Lam, and was launched in 1945 on the occasion of the 100th anniversary of the N.B.V. Meanwhile a substantial manuscript on the genus *Cuscuta* in the Netherlands had been prepared for publication.

Besides his work for the Dutch flora, revision work on the Malesian *Convolvulaceae* was to remain the main task of Van Ooststroom for many years. Following a 7 months trip to Indonesia in 1950 to collect materials and data on *Leguminosae*, 'a group which Dr. Van Ooststroom intended to revise for the Malesian region' according to Lam in his annual report, the next year's report reads: 'Van Ooststroom continued his *usual* (italics by the author) tasks, including the preparation of a bibliography on Malesian *Leguminosae* and the further revision of *Convolvulaceae* for Flora Malesiana'. Correctly Kloos wrote in these years that outside the circle of biologists, the Rijksherbarium was little known in our country.

Yet the seed for the greater renown of the institute, especially outside the circle of professional botanists, had meanwhile been planted through Van Ooststroom's involvement in the schoolfloras of the Netherlands. In 1946 W. H. Wachter, the co-author and revisor of both the Illustrated and the Concise Schoolflora of the Netherlands, and honorary staff member of the Rijksherbarium (he initiated the 'Personalia' collection), suddenly died. While sorting out his library, Van Ooststroom met the publisher of the floras who happened to visit Wachter's widow to offer his condolences. The publisher eagerly invited Van Ooststroom to continue Wachter's work as no arrangement had been made for further revisions of the floras. From then onwards the preface of both floras included a sentence, which would not only increase the fame of the Rijksherbarium, but also the correspondence of what later was to become the department for the Netherlands Flora: 'Those in doubt of the correct identification of a plant found in the wild, can send it, alive or dried, to my address: Rijksherbarium, Nonnensteeg 1, Leiden'.

Officially the department 'Flora Neerlandica' was mentioned in Lam's annual report of 1954 for the first time. With the appointment of Th. J. Reichgelt as scientific officer and R. M. van Urk as administrative assistant, one can rightfully refer to a department in that year. However, much important work on the Dutch flora had already been done by Van Ooststroom before that date, mostly under the auspices of the K.N.B.V. (K. now standing for the predicate Koninklijk – Royal) in which society he held several offices and served on some committees.

With Reichgelt's arrival work on the Flora Neerlandica, for which the third instalment was prepared, could continue at a higher speed. Unfortunately this work came almost to a standstill when Reichgelt died in 1966. Meanwhile in 1956, Van Ooststroom and Reichgelt had started the publication of a mimeographed Cor-

respondentieblad (News Letter) for floristic and vegetation studies in the Netherlands, succeeded in 1961 by the printed bimonthly *Gorteria*.

Thanks to the economic boom it was possible to appoint J. Mennema in 1965, three years before the official retirement date of Reichgelt, to enable him to be introduced to the work on the Dutch (and European) flora and to make a start with monographic revision work on the genus *Lamium*. With the untimely death of Reichgelt these plans could not materialize. Due to increasing service work of the department to answer enquiries and help visitors, he became involved in routine work only one year after his appointment.

An effort to revitalize the Flora project by the appointment of F. A. C. B. Adema in 1968 on a grant from Z.W.O. (the Organization for the Advancement of Pure Research) obtained through the K.N.B.V. did not result in the desired effect, because of insufficient time to prepare the rough drafts for publication. Only in 1975, thanks to the help of the present director of the Rijksherbarium C. Kalkman, could a new instalment be published. It concerned the genus *Taraxacum* (the *Vulgaria* excepted) treated by J. L. van Soest, who had worked as a honorary staff member on the European flora from 1948 onwards, and his two collaborators A. Hagendijk and H. A. Zevenbergen.

Van Ooststroom retired in 1971 and Mennema became head of the department with Adema filling Van Ooststroom's vacancy. They were soon to experience the effects of the Nature Conservation year 1970 (N 70). Increased interest, also from the government, demanded information on the botanical significance of certain areas. This necessitated the development of a method involving intensive, but not time-consuming, floristic inventory work. The method based on observations per square kilometre was also used in the studies by postgraduate students aimed at establishing the nature and position of the borderline between two phytogeographical districts as proposed by Van Soest in 1929. 'N 70' also brought renewed requests for distribution maps of individual species. As a consequence Mennema started to complement the phytogeographical I.V.O.N. maps with data from the herbarium collections and the literature as a preliminary for the 'Atlas of the Netherlands Flora'. Thanks to a substantial grant from the Ministry of Culture, Recreation and Social Service, and with the assistance of the Central Bureau for Statistics the first part of the Atlas can be expected soon.

By coincidence the Rijksherbarium received many large Dutch herbarium collections after Van Ooststroom's retirement. Since a high standard is maintained for the insertion of Dutch material at the species level, safeguarding proper consultation by visitors, Adema had to devote much of his time to checking of identifications of this material. Incoming collections still imply a heavy burden for the staff members of the department for the Netherlands Flora. Fortunately the appointment of W. Holverda in 1973 to work for half days on Dutch plants brought some relief in this respect. Together with Adema he just manages to name the plants sent in yearly.

Everyone who takes notice of the fact that the intervals between the new editions of the *Flora van Nederland* become shorter and shorter, and that the circulation of *Gorteria* increased from 925 in 1970 to 1300 at present, can conclude that an active network of floristic botanists, mostly amateurs has been established in the Netherlands. Each of them contributes in his or her way to the knowledge of the Dutch flora and uses the Rijksherbarium department as the centre for floristic studies. This is also demonstrated by the well-attended Saturday excursions, organized by the

department in co-operation with the K.N.B.V. This is gratifying but it puts also a heavy claim on research time. Reading through the annual reports it is striking that the number of visitors to the department for the Netherlands flora from 1974 to 1977 rose from 60, 72, and 128 to 199. This together with the fact that on Van Ooststroom's retirement in 1971 the staff was in effect reduced from 3 to 2, makes any scientific research virtually impossible.

It is clear, that where the contribution to the taxonomic study of the Dutch flora must be considered insufficient, research on the European flora is even less significant, being hampered as it is by other duties. Progress in the revision of *Lamium* is, consequently, very slow.

Fortunately time has always been reserved for participation in great European projects. Thus Van Ooststroom acted as Regional advisor of the Flora Europaea and as Member of the Committee for Mapping the Flora of Europe (later succeeded by Mennema and Adema). Also full support was given to the preparation of a list of endangered European plant species, on the initiative of a party of the Council of Europe, in which Mennema participated.



After the death of David van Royen (1727–1799, professor of botany from 1754 to 1786) the University of Leiden came in the possession of his large collection of water-colour plates. The plate here reproduced, *Sprekelia formosissima*, was painted by Laurens van der Vinne (1712–1742). Photo C. Marks, Rijksherbarium.