

## II. OBITUARIES AND BIOGRAPHICAL NOTES

*(continued from page 3185)*

*All biographical materials will be highly welcome at the Rijksherbarium library, c/o Dr. M. Jacobs*

A r c k e n h a u s e n, J. C. P. (1784-1855)

The draftsman from Goslar, Germany, who was in the service of C. L. Blume, from 1829 till 1832 or probably later. He worked up many of the drawings Blume had brought from Bogor, for the *Flora Javae*, mostly vol. 1 and 2, fewer vol. 3 and 4. In a book by H.G. Griep e.a., published by the Museumsverein Goslar (1977), details are given, and several fine reproductions.

B l u m e, C. L. (1796-1862)

The botanist for Java, first director of the Bogor Botanic Gardens, and founder of the Rijksherbarium, is the subject of a typewritten study by A. den Ouden: C.L. Blume, periode 1826-1832, 136 + xii p. It is a preliminary paper (in Dutch) for a Ph.D. thesis. Author delved into various archives and came up with a large harvest. There is an impressive amount of documentation in this report already, and a useful 9-page chronological account from birth to 1832. During the period under study, Blume was in Java and founded the Rijksherbarium, which was transferred from Brussels to Leiden; many details are given. The financing of the Flora Iavae in a period when the nation was poor, is another subject elaborated. Blume was a man of remarkable keenness: besides his botanical work, he found time to amass zoological collections, and effectively introduced vaccination in Java. His character was generous on the one hand, stingy on the other; lofty in his intentions, abrasive in his manners. We hope that the work will be continued and come to fruition. Address of author: Biohistorie, Nieuwe Gracht 187, Utrecht, The Netherlands.

J. MacLean, Carl Ludwig Blume and the Netherlands East Indies. Janus 66 (1979) 15-31. Essay on the role of Blume and the revival of botany in Java and Leiden.

D i l m y, Anwari (1915-1979)

It is with great regret that we heard that Professor Anwari Dilmy died, 25 April 1979, at Banjarbaru, near Banjarmasin, Kalimantan Barat, just before finishing his second term as Rector of Lambung Mangkurat University. This bad news reached us too late to include a commemoration in the 1979 issue of this Bulletin.

Anwari was a treasured friend, personally and officially, who held for many years a key position in the development of Herbarium Bogoriense. Notwithstanding his lack of earlier university training in botany, he performed his duties in the best way possible within his ability, and what is more, in the most sympathetic and friendly way, for which botany will ever be thankful and indebted.

Born in Kalimantan Barat, at Marabahan, in 1915, he was, because of his aptitude shown in the primary school, sent to Java, where he received an education at the Agricultural School at Bogor, where he specialized in forestry. From 1937 he was an active officer of the Forestry Service in the Netherlands Indies. During World War II he shared of course the side of the Republicans and after it he was administrative officer of the Borneo Governor's Office at Jogjakarta, from 1946-1948. Then he attended in Bogor an extended higher education at the Forestry College from 1949-1952. For two years he was appointed Conservator of Forests in Kalimantan, 1952-1954. In 1954 he was transferred to the Forest Experiment Station at Bogor, where he served as head of the Botanical Division. In these early years of the fifties the scientific staff of Herbarium Bogoriense gradually dwindled after Dr. M.A. Donk, who was the head of Herbarium Bogoriense, repatriated. Professor Kusnoto, the director of the Botanic Gardens, was at a loss to fill this post and keep Herbarium Bogoriense going. He found Anwari Dilmy the best qualified Indonesian present and could persuade him to accept this position. This must have meant a challenge to Anwari, as he was faced with the full responsibility of the rehabilitation of the institute. He was full of enthusiasm, even in those turbulent years when scientists were extremely scarce and Indonesia was faced with the education of its own people to fill the vacuum caused by the repatriation of so many Dutch scientists.

For biology Prof. Kusnoto had instigated an Akademi Biologi at Bogor, where the prime of selected Indonesians could, for three years, attend specialized courses in biological disciplines, in anticipation of later academic training and qualification abroad. This proved an excellent idea to meet the difficulties. All scientific staff members of the various institutes were compelled to give courses at this Akademi in various branches of botany, forestry, agriculture, etc. Dilmy took an active lecturing part in this educational program. But scientific education costs time; the promising students who were selected to have such subsequent scientific education abroad had to face another five years of intensive study, mostly in England to attain a Ph.D., so that only in the early

sixties qualified Indonesian botanists could be expected to be available. In the meantime Anwari's main task was to keep Herbarium Bogoriense going, largely a task of organization and administration. This was difficult indeed as salaries in the Civil Service were at that time of economic depression exceedingly low and barely covered living expenses, inducing many employees to spend part of their time on other means to supplement their official salary. Anwari was lucky in this respect, in that Mrs. Dilmy was a qualified midwife and besides could manage to have the revenue of eggs of some dozens of chicken. During this period of economic depression in the after-war years life was difficult for the Dilmy family but they always kept on the optimistic side and Anwari could have a good laugh at corollaries of it. He succeeded well in keeping the Herbarium intact and coming up to expectations held by the international scientific world, anticipating that at some future date his institute would be manned by qualified Indonesian botanists. He also kept in touch with international developments in attending several international congresses and symposia. By his intelligent mind, his gradually extending knowledge of foreign languages, and his versatility he could feel himself well at home at these congresses and symposia of the Pacific Science Organization and meetings of Unesco. He possessed an unequalled memory for things he had learnt, persons he had met, faces he had seen, plants he had observed.

At the end of the sixties it was felt that he should give over the leadership of Herbarium Bogoriense to botanists who had in the meantime been qualified scientifically. His successor as director of the Herbarium Bogoriense became the well-known mycologist, Dr. A. Rifai, in 1970.

Anwari, being a born Dyak, and proud of it, then accepted a professorship in a newly established University in his home country, near Banjarmasin, in order to teach and develop its administration, erect a new Botanic Garden, etc., in which he became deeply involved. This was no mean task, as the new university had to start from scratch. In order to acquaint himself with the functioning of a university Professor Dilmy spent one year in Europe, 1968-1969, part of the time in Germany and part in the Netherlands, at Nijmegen University, with special interest in the way how botany, including the new methodologies of ecology, was taught. In the early years his students received an elementary training of a few years at Banjarmasin and were then transferred to universities in Java to finish their studies. His endeavours were so much appreciated that Anwari ended up in functioning as Rector of Banjarmasin University. The heavy burdens of this busy office certainly took their toll of Anwari's health, which had lately never been too good. He suffered from diabetes and had to take care of himself. I am sure the foundation of the University has received the great benefit of his intelligent managing its affairs in the early stages; through his rather early death he could not fully witness the harvest of his activities.

In reviewing Dilmy's life two main periods of his later life stand out, the maintenance and rehabilitation of Herbarium Bogoriense from 1955 to 1970 and the creation of the Biology and Forestry Departments of Banjarmasin University. Both are testimony of his drive and zeal, both are pioneer achievements towards the elevation of science in Indonesia after

it had gained independence. A life well spent and appreciated, and to be remembered in the development of Indonesian science.

I remember him personally as a friend who was so kindly disposed toward the Flora Malesiana endeavour and who assisted in all possible ways to promote its existence and its survival, especially after the difficult years since December 1957, when its life hang by a shred. We will ever remember him as a most loyal friend and colleague. Our sincere sympathy goes to Mrs. Dilmy, who did so much to enable and promote Anwari's pioneer work. — C.G.G.J. van Steenis.

F e l d m a n n, Jean (1905-1978)

M.Chadefaud, Rev. Algol. n.s. 13 (1978) 275-287, portr., bibliogr. Brief biography and full bibliography of this famous algologist.

F l e t c h e r, Harold Roy (1907-1978)

D.M.Henderson, Harold Roy Fletcher 1907-1978, Regius Keeper 1956-1970, Her Majesty's Botanist in Scotland 1967-1978. Notes R. Bot. Gard. Edinb. 37 (1979) 237-241, portr., bibliogr.

J a a g, Otto (1900-1978)

H.Ambühl & R.Braun, Vierteljahrs. Naturf. Ges. Zürich 123 (1978) 344-346; Arch. Hydrobiol. 85 (1979) 264-271, portr., bibliogr.

E.Bosset, Bull. Soc. Vaudoise Sci. Natur. 74 (1979) 283-284.

P.Bourrelly, Rev. Algol. n.s. 14 (1979) 93-97, portr., bibliogr. algol.

M u e l l e r, Ferdinand J. H. (1825-1896)

T.B.Muir, An index to the new taxa, new combinations and new names published by Ferdinand J.H. Mueller. Muellera 4 (1979) 123-168.

R a y n a l, Jean (1933-12.x.1979)

The Deputy Director of the Paris Herbarium died in an accident during a botanical expedition in Niger, Africa. He collected in the New Hebrides (*page 2009*) and in western New Guinea (*page 2328*). Obituary by J.-F. Leroy, Adansonia n.s. 19 (1980) 251-256, with bibliography.

R i c h a r d s, Paul Westmacott (born 1908)

Richards is one of the very few botanists who can be said to have shaped our concept of the tropical rain forest; the others are, in my opinion, Schimper, Corner, and Hallé & Oldeman. His book on the subject is cited in so many reference lists that I wonder how much of it all those authors read. Those who do so discover an astonishing amount of seasoned knowledge: the book is really a gold mine. An enormous amount of reading went into it; accordingly it is a text which demands to be read with patience and precision. Richards was the first to examine systematically against each other tracts of rain forest in the three main regions: Guyana in the New World, Borneo in Malesia, and Nigeria in Africa. He was also the one who developed the profile diagram as a method for field work\*, and also

\* Early diagrams were given by A.S. Watt, J. Ecol. 12 (1924) 145-204, fig. 3, and by H.J. Lam, Natuurk. Tijds. Ned. Indië 88 (1928), fig. 19 opp. p. 82. But neither author followed up the invention. Richards drew the position and dimension of the trees to scale from accurate measurements.

the first to give a comprehensive ecological view on the forest, taking the climax theory as a guide.

This pioneer into the most complex of ecosystems rose from humble bryological beginnings to which he remained attached throughout, and when he was not abroad, kept close to his home grounds: Wales and Cambridge. Our personal contacts were limited to a quick handshake once in the Rijksherbarium, but a correspondence developed which gradually intensified. On my request, Professor Richards kindly sent some material from which the following data have been compiled, often verbatim.

Curriculum Vitae: born at Walton-on-the-Hill, Surrey, U.K., 19 December 1908. Married to Sarah Anne Hotham, 1935; one son, three daughters. Address: 14 Wootton Way, Cambridge CB3 9LX, England. — E d u c a t i o n: 1920-1925 University College School, London; 1925-1927 University College, London; 1927-1933 Trinity College, Cambridge; 1929 First Class Honours, Natural Sciences Tripos, Part I (Botany, Zoology, Chemistry); 1931 Ditto, Part II (Botany); Frank Smart Prize of the University; 1931-1933 Research Scholar and Coutts Trotter Student; 1933-1937 Fellow of Trinity College, Cambridge; 1936 Ph.D. Cambridge; 1937-1938 Rouse Ball Student of the College; 1954 Sc.D. Cambridge. — P r o f e s s i o n a l p o s i t i o n s: 1938-1945 Demonstrator in Botany, Cambridge University; 1945-1949 Lecturer in Botany, Cambridge University; 1949-1976 Professor of Botany, University College of North Wales, Bangor; Head of the Department 1949-1967; 1965-1967 Vice-Principal, University College of North Wales. — V i s i t i n g p o s i t i o n s: 1955 (Jan.-April) Nuffield Visiting Professor, University of Ibadan, Nigeria; 1959 (Sept.) Visiting Lecturer (British Council), University of Helsinki; 1964-1965 Charles Bullard Fellow, Harvard University; 1966 (May) Visiting Lecturer (British Council), Université Catholique de Louvain, Belgium; 1968-1969 (Nov.-Jan.) Visiting Professor (British Council), University of Ghana; 1971 (Jan.-April) Visiting Professor (Royal Society), University of Sierra Leone; 1977-1978 Visiting Professor (Leverhulme), University of Ibadan, Nigeria. — N o n - a c a d e m i c p o s i t i o n s , H o n o u r s: President, British Bryological Society (1949-1951, 1978-1979); President, British Ecological Society (1961-1963); Joint Editor, Journal of Ecology (1956-1963); Member, National Parks Commission (1955-1959); Member of Nature Conservancy (1954-1967) and Chairman of its Committee for Wales (1956-1967); Fellow, Linnean Society of London; Fellow, Institute of Biology; Member of various expeditions to the tropics, including the Royal Society & Royal Geographic Society's Expedition to the Mato Grosso, Brazil (1967, 1968); Commander of the Order of the British Empire (1974); Gold Medal for Botany, Linnean Society of London (1979); Member of the National Academy of Sciences' (U.S.) Committee on Effects of Herbicides in South Viet Nam (1971-1972). — T r o p i c a l e x p e d i t i o n s (disregarding the short excursions in connection with symposia, &c.): 1929 July-November: British Guyana; 1932 June-December: Sarawak; 1934 December-June 1935: Nigeria; 1947 December-April 1948: Nigeria and British Cameroons; 1955 January-April: Nigeria; 1959 March-April: Singapore, Malaya, Brunei, Sarawak; 1965 January-March: Costa Rica; 1967 August-November: Brazil, Mato Grosso; 1968 July-October: ibidem; 1968 November-January 1969: Ghana; 1971 January-March: Sierra Leone; 1977 November-March 1978: Nigeria.

Biographical notes were published in UNESCO Symposium at Kandy, Study of Tropical Vegetation (1958) 43 by William S. Lacey in Nature in Wales 16 (1978, Sept.) 129-131, portr. (particularly on his connections with Wales, its botany and local conservation), and by the same author in the Welsh Bulletin (of the Botanical Society of the British Isles) 30 (1979, Jan.) 13-15, rather similar to the former. An anonymous note appeared in Rec. Proc. Linn. Soc. Lond. sess. 1978-9 (1979) 366-367; this is the citation for the award of the Linnean Gold Medal for Botany. And there is, of course, another in Fl. Males. i 1 (1950) 434-435, portr. From these, supplemented with his answer to a few questions about his career, and his Preface to the Japanese edition of The Tropical Rain Forest (1978), the following picture emerged.

His father held a medical post in Cardiff, Wales; there he grew up. His first mentor in botany was Eleanor Vachell, a very good amateur field botanist. Through her and Dr. G.C. Druce he joined the Botanical Exchange Club, now the Botanical Society of the British Isles. Soon he also came under the influence of Arthur Wade who in 1920 had become assistant in the Herbarium of the Museum of Wales. Wade fostered his interest in plants and in bryophytes in particular, which led to his meeting the bryologist Daniel A. Jones at Harlech. In 1924 he joined the Moss Exchange Club which later became the British Bryological Society, whose president he was to be twice.

At 16, his parents sent him to a German family in Zürich, to learn the language, and he obtained an introduction to Carl S c h r o e t e r, who was in his last year as Professor at the Technical School. Schroeter invited him to come with his students on field excursions, and it was his book Das Pflanzenleben der Alpen that first gave Richards the idea of writing a comprehensive book about the tropical rain forest. Remarkably, C.G.G.J. van Steenis also named this book as a source of inspiration: in The Mountain Flora of Java.

When Richards' father was transferred to the Ministry of Health in London, the family moved there, and he went to University College in 1925. He seems to have impressed his teachers with his knowledge of mosses; F.W. Oliver, the palaeobotanist, and E.J. Salisbury, the ecologist and later Director of Kew Gardens, influenced him most. Salisbury gave him valuable advice in writing The Tropical Rain Forest.

Early in 1929, when he was a second-year undergraduate at Cambridge, his elder brother O.W. Richards, who is an entomologist and graduate of Oxford, was invited to join an expedition to (then British) Guyana, organized by the Oxford Exploration Club. Mr. N.Y. Sandwith (then Kew botanist for Tropical America) had already been invited, but a second botanist was wanted and none seemed to be available at Oxford. O.W. Richards then suggested his brother Paul. The leader, Major R.W.G. Hingston, apparently not impressed by the youth's physical appearance, seems to have said: "I think we will take young Richards but I doubt whether we will bring him back". The two botanists collaborated splendidly with each other and with T.A.W. Davis of the Forest Department who knew the trees very well, as well as with the Arawak Indian 'tree finder' Jonah Boyan, whose son and grandson he met when re-visiting Guyana in 1979.

In 1930, the 5th International Botanical Congress was held at Cambridge. Richards, then 21, attended a symposium on 'The beech forests of Europe' (Report of the Proceedings, p. 137-180. 1931), and on this occasion acquired the idea to make a comparative study of sample areas of rain forest in the three major tropical regions. In 1932 he went with an Oxford expedition to Sarawak; three years later, he organized a small expedition to southern Nigeria. When he returned to Cambridge he realized that he had enough material for a book and about 1936 began writing.

My question about an influence by A.H. Church — acknowledged by E.J.H. Corner in his writings — was by Richards answered more in the negative. Church's ideas were much discussed when he was at Cambridge, and his theories affected Richards' ideas on bryophytes, but those on tropical ecology not very much. "Speculations like Church's Thalasssiophyta and the Durian Theory I find fascinating and stimulating but I am temperamentally more attracted to 'down to earth' science."

When World War II came the book, still unfinished, had to be put aside for four years, but when it again became possible to travel, he organized a second expedition to Nigeria. On returning in 1948, much new material had to be incorporated; in 1950 the book went to press but did not appear before early in 1952. The first reprint (1957) contains over 400 small corrections, and smaller numbers were made in subsequent reprints (1964, 1966, 1972 and 1976), but a substantial revision has not been attempted until now. "The task is difficult and I cannot hope to complete it for several years." A Russian translation, edited by An. A. Fedorov, appeared in 1961.

Richards is also the author of what I regard as the best popular book to date on the rain forest, The Life of the Jungle (1970). It portrays the rain forest as 'a world in harmony' and gives full attention to the role of animals, with excellent illustrations. In its presentation of the rain forest as a dynamic system, it gives a more 'modern' outlook than does the earlier book.

Mosses bound his interest, too, and so did the native flora of Wales. He also conducted many excursions as part of his professorial duties. He spent much time on matters of conservation, and was a founder of the North Wales Naturalists' Trust (chairman 1969-1972). In the 1978 biographical note he is called an authoritative teacher, wise counsellor and dedicated conservationist — all these qualities combine in the slim, slight, apparently un-ageing figure of Paul Richards and have contributed so much to the advancement of botanical science in Wales. At present he is engaged, together with Dr. S.R. Edwards, on a generic Flora of West African mosses, as well as on revising The Tropical Rain Forest. Ad multos annos!

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Some were published in the *Revue Bryologique et Lichénologique n.s.*, as follows: 15 (1946) 120-122, 216-217, and some in the *Transactions of the British Bryological Society*, continued as *Journal of Bryology* in the same volume series, as follows: 1 (1949) 232-233, (1950) 400-401; 2 (1952) 120-121, (1953) 329, 329-331; 3 (1960) 749-750; 5 (1969) 846-847; 10 (1978) 83, (1979) 353. The latter series also contains occasional 'Notes on plants contributed', part of which were signed by Richards, part by others. These have not been included here. Nor were included short announcements, or reviews which possibly were published in other journals. — M.J.

Singer, R.

M. Moser & E. Horak, *Verzeichnis der wichtigsten Publikationen von R. Singer*. *Sydowia Beih.* 8 (1979) 1-13, portr., bibl.

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Vickery, Joyce Winifred (1908-1979)

A famous agrostologist of the National Herbarium of New South Wales who marshalled the grass flora of New South Wales and revised the Australian species of the genera *Agrostis*, *Deyeuxia*, *Danthonia*, *Festuca*, *Poa* and *Stipa*. Her earlier work was on rain-forest ecology; she was active on nature conservation and gave generous help to young botanists.