Obituary

Fl. Medit. 34: 379-399
https://doi.org/10.7320/FlMedit34.379
Version of Record published online on 21 December 2024

Benito Valdés & Werner Greuter

To the memory of Vernon Hilton Heywood

The texts of the two lectures given at the beginning of Symposium 10 of the XVII OPTIMA Meeting (Palermo-Erice, September 20-24, 2023), dedicated to the memory of V. H. Heywwod, are included below.

Benito Valdés

Professor Vernon Hilton Heywood. The scientist, the teacher, the person. The influences of Spain

Abstract

Valdés, B.: Professor Vernon Hilton Heywood. The scientist, the teacher, the person. The influences of Spain. — Fl. Medit. 34: 379-394. 2024. — ISSN: 1120-4052 printed, 2240-4538 online.

Vernon Hilton Heywood was an eminent botanist who had been active for many years on several fields of plant sciences. He was born on the 24 December 1927 at Edinburgh and died on 17 September 2022 at Reading, shortly before reaching the age of 94. This memoir is dedicated to remember his activity as scientist and teacher and highlight his personality. Special attention is paid to the first decade of his professional and personal activity, little known to conservationists and even to most botanists.

Key words: Heywood, Flora of Spain, Cazorla, Flora Europaea.

Article history: Received 30 January 2024; received in revised form 20 February 2024; accepted 22 February 2024; published 21 December 2024.

Introduction

In September 19, 2022, all OPTIMA members received a communication from our President, Prof. Francesco Maria Raimondo with the sad news of the death of Prof. Vernon

Hilton Heywood, a member of the International and Executive Councils of our Organization. In fact, the Secretary of OPTIMA, Prof. Gianniantonio Domina had already sent this new the previous day by an e-mail. Prof. Raimondo communication was translated to French by Dr. Audrey Tocco, the Operational Project Manager of Tela Botanica, and this translation was sent by this network of French-speaking botanists (c. 47,000 in 2020) three days later. Almost simultaneously, in September 29th, Botanic Garden Conservation International (BGCI), of which Prof. Heywood had been the founder and first Director, sent this bad new to all its members, over 800 botanic gardens spread along the five continents.

This is why a few days after its happening, the death of Prof. Heywood was known all around the World, as all around the World his figure as a botanist particularly involved in promoting plant conservation was equally known, as well as his marked personality, his deep knowledge in all aspects of plant sciences, his ability as lecturer, his generosity in the transmission of his knowledge and his easy-going treatment to others, regardless their importance and category.

Prof. Heywood had been defined as "… a life dedicated to plant conservation" (BGCI communication, 20 September 2022), "… the most important botanist for conservation worldwide and a brave defender of the Mediterranean flora (Baccheta & al. 1922), "… the most important and prominent botanist at global level on conservation of endangered wild plants" (CIEF, 29.09.2022), "… the most important of the specialists on plant conservation and one of the taxonomists and popularizers of botanical sciences more actives in the last decades" (Laguna & al. 2023a: 42), etc. And in the modern online encyclopedia, Wikipedia, Prof. Heywood is referred as "British botanist. He specialized in medicinal and aromatic plants".

It is true that for almost half a century Prof. Heywood devoted his activity mainly to those aspects of plant sciences, but we must not forget that from the beginning of his professional career he spent more than three decades practicing and contributing to the development of plant taxonomy and evolution through his research activity and the training on Botany and Taxonomy of hundreds of students. This is why it is more accurate the definition given by Planta Europa (a network of nongovernment and government organization based in Paris) when in 2007, presented Prof. Heywood the Linnaeus Award during the celebration in Cluj-Napoca (Romania) of the V Conference on Conservation of Wild Plants: "Prof. Vernon H. Heywood is an eminent scientist who has been active for many years in the fields of plant classification and evolution and whose efforts are currently focused in the development of strategies for the conservation of plants".

The content of this memoire is dedicated mainly to the first decade of his professional activity, little known to conservationists and even to most botanists, and particularly to his implications in the study of the flora of Spain.

The beginnings

Origins

Vernon Hilton Heywood was borne in Edinburgh on December 24, 1927. His original family name was not Heywood, with the birth certificate showing his registered name as Hilton Vernon Nathan. However, the family name was changed by Deed Poll[1] from Nathan

to Heywood in 1938 on account of the increasingly ominous political situation in Europe at the time (Prof. P. Heywood, pers. comm.).

From 1937 to 1945 he did his secondary studies at George Heriot School, Edinburgh. His vocation was not defined yet, as he initially lined towards Agronomy, as he says himself: "… in fact, I wanted to be a farmer … However, during my studies I stood out in Zoology, and if it hadn´t be for my teachers, that insisted on telling me that I would have to be a botanist …" (Heywood 2000). Following their advice, in 1945 he registered in Edinburgh University to study Botany, to get his title of Bachelor of Sciences in 1949 (Laguna & al. 2023a).

The first expedition to Spain

In 1947 he traveled to Spain for the first time. The circumstances of this travel are given by Heywood in the following terms: "I was studying Botany at the University of Edinburgh with Prof. Sir Williams Wright Smith … at that time I had no particular interest for Spain, but when in 1947 Dr. Paul Giuseppi, a surgeon of Felixstove and renowned specialist in alpine plants contact Sir Williams searching a young student to accompany him on a trip to Spain to collect some rare plants, I was the designated student and I did not lose the opportunity … On June 24, 1947 we left by car to Spain crossing France, together with Herbert Cowley, a known editor of gardening magazines … I was by then 19 years old" (Heywood 2004). This is why, by chance, Heywood visited several Spanish mountain systems, including Cazorla, for the first time (Fig. 1).

Dr. Giuseppi (1881-1947) was an amateur botanist expert on alpine plants, member of the Royal Horticultural Society and from 1945 President of the Alpine Garden Society. He had visited the mountains of Iran (Persia), Russia, Crete, the Balkans and the Iberian Peninsula, particularly the Cantabrian Mountains and Cazorla[2]. "All these excursions were planned in the greatest detail and nothing was left to chance" (Roger-Smith 1948). Besides to be editor of several botanical magazines, Cowley was an amateur botanist who had traveled to the Alps and the Balkan Peninsula in search of plants, was honorary life member of the Alpine Garden Society (Anonymous 2014: 931) and an expert photographer. Most surely the costs of the expedition were covered by Dr. Giuseppi and the destination of the plants, seeds and bulbs collected was his own rocky garden and glasshouse and the gardens of the Royal Horticultural Society at Wisley (Surrey), trying to increase the presence of the Spanish mountain plants in the British gardens, as it is the case of *Viola cazorlensis* Gand., cultivated in England from seeds collected by Dr. Giuseppi in his previous travel to Cazorla and of which "Seed from this year´s collection has now been distributed and we hope to see more of *Viola* in the near future" (Heywood 1948: 262). They failed, though, to introduce *Pinguicula vallisnerifolia* Webb for cultivation, as "A search made for seed later was fruitless, for any seed set must have been dislodged by a hail-storm which broke nearly every window pane in Cazorla. The problem of introducing this giant Butterwort is rather formidable, for the carefully packed sticky ribbons we sent back by air shrivelled into powder." (Heywood, 1948: 261).

[1] A Deed Poll is a type of legal document. Nowadays, the most common use of a Deed Poll is to officially change your name.

[2] By instance, Heywood (1950a: 448) writes: "This is the form [of *Hypericum ericoides*] in general cultivation in Britain – collected by Dr. P.L. Giuseppi in the Sierra de Cazorla"

Fig. 1. Vernon Hilton Heywood in Sierra de Cazorla, during his first expedition to Spain. 1947. Behind, *Pinguicula vallisnerifolia* Webb, endemic to provinces of Jaén, Granada and Albacete, Spain.

There is no doubt that for Heywood, as a beginner, it was a great advantage to benefit from the experience of the two other members of the expedition, particularly of Dr. Giuseppi, and once back to England he prepared a report of the travel which was published in the Journal of the Royal Horticultural Society (Heywood 1948). This is his first publication, which includes an excellent description of the travel, the mountains they visited and the plants which more particularly attracted his attention. It should be the starting point of some of his future botanical publications, including his first taxonomic revision on *Tanacetum* Subsect. *Leucanthemopsis* Giroux (Heywood 1954c), a group he raised later to the category of genus (Heywood 1975), a proposal adopted by botanists since[3]. One of the results of this expedition was the publication by Heywood of a study on *Iris serotimum* Willk., endemic of SE Spain, based on the plants collected (Heywood 1950c)[4].

The feelings this expedition moved in the young Heywood are described by him many years later in the following terms: "My first visit to Spain had ended. Left me an indelible effect and would have incalculable consequences for my life and subsequent professional career" (Heywood 2004). He was strongly attracted by the mountains of Spain, by the country, the Spaniards and the plants and vegetation; and some time later he felt in love with Conchita (María de la Concepción), a girl from Cazorla that he married in 1952.

[3] Subsequently, Heywood´s contribution to volume 4 of Flora Europaea was the treatment of all genera of *Compositae* belonging to subtribes *Anthemidinae* (Cass.) Dumort., *Leucantheminae* Bremer & Humphries and *Leucanthemopsidinae* Oberpr. & Vogt (Heywood 1976: 168-177).

[4] This species is currently considered a part of genus *Xiphion* Mill. (see, by instance, Crespo & Martínez 2013: 439).

The second expedition to Spain

In 1948 Vernon Heywood made his second botanical travel to Spain, this time sponsored by the Royal Horticultural Society, together with Peter Hadland Davis, a well-known botanist for his Flora of Turkey (Davis 1966-1985). Davis was nine years older than Heywood and one of his classmates. In 1938 he began botanizing as an amateur in Middle East, including Turkey, but his botanizing work was interrupted by the second world war as he had to serve the British Armed Forces from 1936 to 1945 (Waterson & Shearer 2006: 243). Once the war finished he began his training in Botany in 1945, to get his title of Bachelor of Sciences in 1959, this is at the same time than Heywood. Both were responsible for the organization of the travel, and this time they did not use a car, but public transportation: trains and buses.

The expedition was practically confined to Andalusia, as it was in this region where they collected for almost three months, particularly in Sierra de Cazorla mountains (Fig. 2) "because of their paramount horticultural and botanical interest" (Heywood 1950a: 446). Intense collections were also made in Sierra Nevada, (Granada), Sierra de Grazalema (Cádiz), Serranía de Ronda and Sierra de Tolox (Málaga), and visits to different zones of Murcia and Alicante provinces at the end of the expedition and to the gypsum areas near Aranjuez at the beginning, while waiting in Madrid for the arrival of the presses and field materials.

The expedition was highly productive. As Heywood says: "Seeds were collected of over 180 different species as well as bulbs and corms of 15; these are in the main grown at the Society´s Gardens at Wisley and at the Royal Botanic Gardens of Kew. We also made about 1,000 herbarium gatherings that are being divided between the herbaria of the British Museum (Natural History), Kew and Edinburgh." (Heywood 1950a: 444).

Fig. 2. General view of Cazorla and the Sierra. 1948. (Photo V. H. Heywood).

Among the species of which bulbs were collected was *Narcissus hedraeanthus* (Webb & Berth.) Colmeiro, "Which flowered in Sussex on Christmas day, at Wisley a few days later and at Edinburgh in mid-February. These were identified as *Narcissus hedrianthus* [sic]" (Heywood 1950a: 449), introduced this way into cultivation in the British gardens in 1948 (Mayer 1966: 74). Heywood prepared this species for The Curtis´s Botanical Magazine some years later (Heywood 1955, plate 248), as he previously announced[5]

The main difference between this second and the first journey is that although they made a good collection of seeds, bulbs and corms to fulfill the interests of the Royal Horticultural Society, they also collected herbarium material for future taxonomic studies, because Heywood and Davis were being trained as botanists, while Dr. Giuseppi and Cowley were rather "plant hunters", more interested in the introduction into cultivation of new or rare plants.

In October 4, 1949, Heywood gave a lecture on the expedition to the Society, which was the basis for the preparation of a publication which was not claimed to be a report of the expedition but a discussion of some of the plants they collected. It was divided into two parts, one devoted to Sierra de Cazorla (Heywood 1950a), and a second to plants of the rest of the travel (Heywood 1950b). In this publication Heywood pointed out numerous species which attracted his attention. This time, there was not Dr. Giuseppi (in fact he died a few months after coming back to England from Spain) neither Mr. Cowley to orientate him, and Peter Davis was not familiar with the Spanish flora. So, the feeling we can get from reading his publication is that Heywood had identified at least the greatest amount of the plant material collected, and that he had acquired in a short time (less than two years) a good skill in the knowledge of the Spanish flora.

But he was unable to identify some of the plants, as he writes, by instance: "On climbing out the *Pinetum* to the limestone slopes of the Cabeza del Tejo we found … and a variety of *Arenaria armerina* … it resembles *A. tetraqueta* in general habit …" (Heywood 1950a: 447), or: "Below the peak [Pico Cabañas] a dwarf *Geranium* with white flowers veined with violet … and a blue-flowered *Aquilegia* 6 inches high …" (Heywood 1950a: 451). The reason was that they were undescribed species. Heywood named the new *Arenaria,* in herb., *A. lithops*, a name which was validated later by John McNeill (McNeill 1962: 113)[6] and the *Geranium* and *Aquilegia* were named and described by Heywood four years later as new species with the names of *Geranium cazorlanum* and *Aquilegia cazorlense* (Heywood 1954a: 112, 84)[7].

Further expeditions to Spain

In 1949 Heywood got his title of Bachelor of Sciences at the University of Edinburgh, and began the preparation of a doctoral thesis at the University of Cambridge (Penbroke College) under the supervision of Prof. Edred John Henry Corner.

[5] "In horticultural circles it has attracted considerable attention [*N. hedraeanthus*] and a paper giving fuller information is in preparation (Heywood, 1950a: 449).

[6] The correct name of this species is *Arenaria alfacarensis* Pamp. (López González 1985: 258, 1990: 183).

[7] Although the latter is considered today as a subespecies of *Aquilegia pyrenaica* DC. (see by instance Díaz González, 1986: 385), its identity as a distinct taxon is out of any doubt.

Fig. 3. Vernon in Cazorla. 1951. Left, in the festivities of the city, with Conchita (Mª de la Concepción Salcedo). Right, resting in the village after one of his excursions to the Sierra.

Attracted by the Sierra de Cazorla, Heywood made new expeditions to collect plants and to study the vegetation, as he himself writes: "… a further expedition [following those of 1947 and 1948] was arranged in 1951 when extensive gatherings were made together with copious notes on the vegetation. Most of the period between September, 1951 and July, 1955 was spent in Spain and further visits were made to the Sierra de Cazorla at all seasons of the year. Many tours were made to the Sierra to study the vegetation. Short additional trips were made in 1956, 1958 and 1959 during expeditions to the neighboring Sierra de Segura" (Heywood 1961:36).

The most important of those expeditions was that of 1951, according to the herbarium material collected by Heywood which is kept at different British herbaria, particularly in those of The Natural History Museum (London), Royal Botanic Gardens of Kew, Royal Botanic Garden of Edinburgh and his personal herbarium, that he kept at least until 1967. These expeditions gave him a clear idea of the flora and vegetation of Sierra de Cazorla and allowed him to describe as new several taxa, such as *Aquilegia cazorlense*, *Alyssum fastigiatum*, *Erysimun linifolium* subsp. *baeticum* and *E. linifolium* subsp. *cazorlense*, *Geranium cazorlense* and *Erodium cazorlanum* (Heywood 1954a) and *Fumana paradoxa* (Heywood 1954b: 174).

The Spanish period

During this period, particularly between 1951 and 1954 in which he elaborated his doctoral thesis at the University of Cambridge, he was also staying at the "Instituto "Antonio

José Cavanilles" of the Consejo Superior de Investigaciones Científicas, Madrid" and "In addition shorter periods in the herbaria of … Facultad de Farmacia, Ciudad Universitaria, Madrid, Instituto Forestal de Investigaciones y Experiencias, Madrid, Instituto Botánico, Barcelona and Facultad de Farmacia, Universidad de Granada" (Heywood 1961a: 36).

This period, and particularly between 1951, when he undertook his third expedition to Sierra de Cazorla and October 1955, when he moved to the University of Liverpool, as it will be indicated below, was particularly important for his personal and professional life.

On the personal and affective side, he married María de la Concepción Salcedo Manrique de Lara (1924-2012), born in Cazorla, daughter of José Salcedo Cano, a much appreciated and respected medical doctor, by then the Major of the city, and María Manrique Manrique, a lady connected to the Spanish nobility through the lineage of Lara. The wedding took place in Valladolid and was administered by the Archbishop of that city (Prof. P. Heywood, pers. comm., Fig. 4).

On the professional side, he connected the Spanish Council of Scientific Research (C.S.I.C., Consejo Superior de Investigaciones Científicas), from which he got some funding through a scholarship, and this gave him the opportunity to contact with several Spanish botanists, such as Salvador Rivas Goday, Elena Paunero Ruiz, Emilio Fernández-Galiano, Emilio Guinea and Pedro Montserrat in Madrid, and Oriol de Bolòs and Pio Font Quer in Barcelona, with some of which, particularly with Emilio Guinea and Emilio Fernández-Galiano, he established bonds of friendship.

Fig. 4. Vernon Hilton Heywood and María de la Concepción Salcedo Manrique de Lara got married in Valladolid on June 7th, 1952. The wedding service was administered by the Archbishop of Valladolid.

In 1952, after the wedding, Conchita and Vernon established their residence in Madrid (Fig. 5), where they owned a flat which is now the property of their son Paul (Prof. P. Heywood, 2023, pers. comm.). In January, 1954 Heywood got his PhD title by the University of Cambridge. In 1954 he published the first, and unique, number of his "Notulae criticae ad floram Hispaniae pertinentes". As he indicates, this note was projected as "The first of a series of papers on the taxonomy of the Spanish flora. It is primarily concerned with the Montes del Estado de la Sierra de Cazorla, province of Jaen, of which the author is writing a flora; but it contains notes on species outside that area and other matters of interest concerning the Spanish floristic that have come to his notice during this work …" (Heywood 1954a: 83). This is an excellent study based on his own collections and observations and on the plants kept in the herbarium of the Botany School, University of Cambridge, but also in the plants of the herbaria of the Natural History Museum, London, Royal Botanic Gardens of Kew and Edinburgh, where Heywood had spent short periods of time. This first number covers the families *Ranunculaceae*, *Papaveraceae*, *Fumariaceae*, *Cruciferae* and *Geraniaceae* and includes the description of six new taxa endemic of Sierra de Cazorla or of the Betic mountains. But for several reasons it was not continued, what has to be considered a pity, because in addition to comments and updated nomenclature of many species, it would probably include the description of new taxa.

Heywood remained in Madrid until October 1955. He felt happy and confortable, and totally identified with the country and particularly with Cazorla, to the point to express his feelings in the following terms: "We who have the great luck to be able to claim the lands

Fig. 5. Vernon and Conchita in Madrid. 1954.

of Jaén as our homeland ("patria chica"), especially those of us who were born under the shadow of the Peña de los Halcones[8] (or, as myself, claim it as a marriage right) we have in our mountains, in the meadows, in the valleys, a Nature heritage that do not deserves that disregard with which we treat it. In every corner of our argentean mountain range we have, if we want to look for it, a treasure" (Heywood 1954b: 28). Besides, he was appreciated and admired by his colleagues and friends, that much recognized his knowledge and new inputs to botanical studies in Spain, as expressed, by instance, by Emilio Guinea: "… this efficient botanist that so much has done and continue doing for the knowledge of the Spanish flora and for raising the scientific level of our country" (Guinea 1954: 6). To leave Spain was not part of his expectations. But at the beginning of 1954 the funding he received from the Spanish Council was not renewed, owed most probably to a foul play, as was his feeling, what is in line with the gossip I heard in Madrid in the decade of the 60s. This forced him to return to England against his will. He tried hard to avoid this problem without success. By sure complained the Spanish Council, and asked for help to the British Embassy on February 27, 1954. The British Consul contact the Spanish Council without success and also the director of the British Institute in Madrid, Prof. Walter Starkie who had close relations with the powerful Secretary General of the Spanish Council, the soil scientist and priest Dr. José María Albareda. The later confirmed that "the scholarship awarded to Mr. Heywood was done exceptionally, and it is natural that there are difficulties to extend a situation with that character" (letter from José María Albareda to Prof. Walter Starkie, 30 April 1954; Heywood family archive). But Heywood had also a funding from the Carnegie Trust for The Universities of Scotland, which purposes include to encourage the development of research skills in undergraduates and postgraduates, which was extended to allow him to remain in Spain a further year (Prof. Paul Heywood, 2023, pers. comm.).

The Liverpool period

In 1955 Heywood changed his residence from Madrid to Liverpool. If he had continued in Spain, most surely he would have been incorporate to the Spanish Council of Scientific Research as a member its staff. But most probably he would have not reached the important role he played at the worldwide developing of botanical science.

Meanwhile, two events who took place in 1954 and 1955 favored his transfer to Liverpool: his election as the Secretary of *Flora Europaea* in 1954 and his appointment as Lecturer of Botany in the University of Liverpool in 1955.

In July, 1954, he attended the VIIIth International Botanical Congress in Paris. It was an opportunity to contact other British botanist who were in attendance in the Congress. May be Heywood already knew some of them, particularly Stuart Max Walters (1920-2005), Professor of Botany at Cambridge University, where he had prepared and submitted his doctoral thesis. It was in this Congress when the project of a flora of Europe originated. As described by A.D. Bradshaw in the obituary of Prof. Thomas Gaskell Tutin (1908-1987): "At the VIIIth Botanical Congress at Paris in July 1954, there was a Symposium on "Progress of work on the European flora". In his introductory talk D.H. Valentine, referring

[8] Peña de los Halcones is an enormous Cliff rock which dominates the city of Cazorla.

to the several new national floras, added that "a new European Flora, although an immense undertaking, must be regarded as one of the aims of the future". This idea was followed up in a café near the Sorbone, under the influence of a little Calvados. It took off when Tom, with his inimitable energy not long freed from the British Flora[9], induced David Valentine, N.A. Burges, V.H. Heywood, S.M. Walters and D.A. Webb to joint an informal committee for a proposed *Flora Europaea*, which met first in Leicester on 4 January, 1946" (Bradshaw 1992: 369). Prof. T.G. Tutin took the chair of the Editorial Committee (previous Editorial Board); Vernon Heywood was designated as Secretary.

In October, 1955, Heywood was appointed lecturer of Botany at the University of Liverpool, maybe proposed by Aland Burges, Professor of Botany at that University, and the Heywood family (already with the first of the four sons born) moved to Liverpool. In 1946 Heywood organized in Liverpool the Secretariat of *Flora Europaea*.

So, he acquired two new commitments to add to his research activity: to ensure the development and success of *Flora Europaea* and to lecture at the University. All this should have been too much for many, but not for Heywood, gifted with a great intelligence and an extraordinary working capacity.

To be the secretary of the Editorial Committee of *Flora Europaea* was really hard, at least along the first period, until the first volume was published in 1964 (Tutin & al. 1964). During this period his duties were not only to organize the periodical meetings of the Committee, to coordinate the work of an international group of advisory editors and regional advisers, to receive and distribute the drafts of the authors, etc., but also to prepare and distribute the guidelines to the authors (Heywood 1957a, 1958, 1960b), to edit the series *Notulae Systematicae ad Floram Europaeam spectantes*, four issues in this period (Heywood 1961-1964), to prepare the volumes of the *Flora* for publication, to coordinate the celebration of the periodical Symposia of Flora Europaea (four in this period, from the first in 1959 to the fourth in 1963), and to edit an write as author the treatments of families and genera of its competence, which for the first volume meant to edit 13 plant families, including *Cruciferae*, and the authorship of 34 genera, including *Biscutella* (together with E. Guinea) and *Brassica*.

At the University of Liverpool he was appointed successively Lecturer (1955), Senior Lecturer (1960), Reader (1963) and professor (1964) of Botany. He lectured Botany, and also Plant Taxonomy and Plant Evolution since 1963 when he opened the first Master on this topic established in England. His lectures were particularly clear, perfectly structured and absolutely up to date. He published, together with his old classmate and friend, and by then Professor of Botany at the University of Edinburgh, Peter Hadland Davis, the most complete textbook on Taxonomy so far published (Davis & Heywood 1963), an endless source of taxonomic information.

But he also managed to find time to submit a new thesis at the University of Edinburgh to get the doctorate in Sciences (DSc), of which he was particularly proud, and to attend his family (Fig. 6).

But so many new duties separated Prof. Heywood from his direct interest in the Spanish flora, of which he was by them considered an expert, as he himself declared ("I had become an expert on Spain", Heywood 2004) or as many of his colleagues admitted (by

[9] A reference to Clapham, A.R., Tutin, T. G. & Warburg, E. F. 1952: *Flora of the British Isles*. Cambridge, at the University Press.

Fig. 6. Heywood´s family in Paris, early 1970. From left to wright: Christopher, Nicholas, Vernon, Conchita and Francis (Photo Paul Heywood).

instance Sventenius and Bramwell (1971: 5), who described the compositae genus *Heywoodiella* "in honorem cl. Prof. Dr. V. H. Heywood, florae hispanicae meritissimi investigatoris"). Between 1948 and 1955, when he left for England, he had published 10 papers (Heywood 1948-1955). From this date to 1963 he published 16 more (Heywood 1956-1964; Ball & Heywood 1962; Brummitt & Heywood 1964; Heywood & Ball 1962, 1963), prepared during his stay in Spain or based on his field experience of this country, three of them in relation to his implications as author for vol. 1 of *Flora Europaea*. These included a first part of the never completed Flora of Cazorla (Heywood 1961a) and the first part of a catalogue of the Spanish vascular plants (Heywood 1961b), for which he had the ability to get the collaboration of Peter W. Ball (Liverpool), Oriol de Bolòs (Barcelona), Emilio Fernández-Galiano (Madrid), Pío Font Quer (Barcelona) Emilio Guinea (Madrid), Manuel Laínz (Gijón), Pedro Montserrat (Madrid), Salvador Rivas Goday (Madrid) and Werner Rothmaler, by them at Leipzig, but had been working as botanist in Barcelona and Lisbon between 1933 and 1940. This catalogue was "an attempt to provide a summary of the content of the Spanish flora" (Heywood 1961b: XIV), and it could have been the origin of a flora of Spain. But as with the series of Notulae Criticae (Heywood, 1954a) and his Flora of the Sierra de Cazorla (Heywood 1961a) was never completed. Owing to the impossibility to complete his Flora of Cazorla, he disinterestedly offered the still unpublished manuscript to Emilio Fernández-Galiano, then at Madrid and latter at Sevilla, which resulted in the joint publication of a checklist of the plants of the eastern half of province of Jaén (Fernández-Galiano & Heywood 1960).

Heywood never lost his interest for Spain, a country for which he was probably nostalgic, neither his links with Spanish botanists, not only with its contemporary but also those of news generations, that always had his help and advice. For many years he brought his University students of Liverpool and later of Reading for their field practices to Seville, Murcia or Valencia, and was always ready to participate in symposia, meetings, courses or conferences in any Spanish town and to help in the improving or establishment of the Spanish botanic gardens.

Reading and the Botanic Garden Conservation International

In 1968 Heywood was appointed professor of Botany of the University of Reading, a post he maintained till his retirement in 1987, and named Emeritus Professor from 1990 to 2020. He divorced from María de la Concepción Salcedo in 1981, and later that year married Christine Anne Brighton (Fig. 7).

It is in this period, and more particularly once the fifth and last volume of *Flora Europaea* was published, when Heywood gradually changes from taxonomy to plant conservation. From 1987 to 1990 was Secretary of the Botanic Garden Conservation Secretary of the International Union for Conservation of Nature (IUCN), a Secretariat that segregated from IUCN in 1990 to become the Botanic Garden Conservation International based at Kew, of which Vernon H. Heywood was the founder and Director from 1990 to 2015.

His death in 17 September 1922 was not a surprise for many of us, since we were aware he was diagnosed of an inoperable cancer in April, 1920.

Fig. 7. Heywood and Christine Anne Brighton. 2013. (Photo S. Jury).

Epilogue

Vernon Hilton Heywood was author or co-author and editor or co-editor of more than 40 books, of which perhaps the most relevant was *Flowering Plants of the World* (Heywood 1978) translated to several languages including Chinese, and its much enlarged second edition, *Flowering Plant Families of the World* (Heywood & al. 2007). He was also author or co-author of over 400 papers. His contribution to Botany and Plant Sciences in general has been widely recognized and has earned him numerous awards. The fist was his appointment in 1972 as Honorary Counselor of the Spanish Council of Scientific Research, the same Institution that denied his funding in 1954. It was not until 15 years later when a British institution recognized his merits: The Linnean Society of London which awarded him the Linnean Medal for Botany in 1987. Then he received new honors: Honorary Research Professor of the Botanic Garden and Botanic Institute of Nanjin (1988), Medal Can de Plata of the Cabildo Insular de Gran Canaria (1989), Hutchinson Medal of the Chicago Horticultural Society (1990), Storer Lectureship of the University of California in Davis (1990), Honorary Fellow of the Royal Botanic Garden of Edinburgh (1990), Honorary Fellow of the Linnean Society of London (1996), Honorary Professor of the University of Mendoza, Argentina (1997), Regent´s Lecturer of the University of California in Riverside (1998), Insignia de Oro of the Botanical Garden Viera y Clavijo, Gran Canaria (2002), Medal of the Chicago Horticultural Society (2002), Linnaeus Award of Planta Europa (2007), Gold Medal of OPTIMA (2007) and Theophrasthos Prize of the Fondazione pro Herbarium Mediterraneum.

He left many friends in Spain, some of which have published extensive and felt obituaries (Marrero 2023; Laguna & al. 2023a, 2023b), from which some of the data for this memoir have been taken.

Aknowledgements

The author wishes to express his gratitude to Prof. Paul Heywood for providing important documents and information used in this memoir and for correcting the English of the manuscript.

Bibliography

Anonymous 2014: Herbert Cowley – Kew Guild J. **2014:** 930-931.

Baccheta, G., Laguna, E. & Médail, F. 1922: In memoriam of Vernon Heywood. – Genmeda News-Events, 22 September 2022.

Ball, P. W. & Heywood, V. H. 1962: The taxonomic separation of cytological races of *Kohlrauschia prolifera* (L.) Kunth. – Watsonia **5:** 113-116.

Bradshaw, A. D. 1992: Thomas Gaskell Tutin. 21 April 1908 – 7 October 1987. – Biogr. Mem. Fell. Roy. Soc. **38:** 360-373.

Brummitt, R. K. & Heywood, V. H. 1964: A review of *Herniaria* suben. *Heterochiton* in Europe. – Feddes Repert. **69(1):** 24-32.

Crespo, M. B. & Martínez, J. 2013: *Xiphion* Mill. – Pp. 431-441 in: Castroviejo, S. & al. (eds) Flora Iberica, **2.** – Madrid.

Davis, P. H. 1966-1985: Flora of Turkey and the East Aegean Islands, **1-10.** – Edinburgh.

— & Heywood, V. H 1963: Principles of Angiosperm Taxonomy. – Edinburgh & London.

Díaz González, T. E. 1986: *Aquilegia* L. – Pp. 376-387 in: Castroviejo, S. & al. (eds) Flora Iberica, **1.** – Madrid.
Fernández-Galiano, E. & Heywood, V. H. 1960: Catálogo de las plantas de la provincia de Jaén (Mitad Oriental). – Jaén.
Guinea, E. 1954. Cistáceas Españolas. (Con exclusión del género *Cistus*). – Madrid.
Heywood, V. H. 1948: Through the Spanish Sierras. – J. Roy. Hort. Soc. **730:** 257-266.
— 1950a: Plant collecting in the mountains of Andalucia. I. – J. Roy. Hort. Soc. **75:** 444-452.
— 1950b: Plant collecting in the mountains of Andalucia. II. – J. Roy. Hort. Soc. **75:** 478-485.
— 1950c: Iris serotina – A late flowering *Xiphion*. – Iris Year Book: 105-109.
— 1953: El concepto de asociación en las comunidades rupícolas. – Anales Inst. Bot. Cavanilles **11(2):** 463-481.
— 1954a: Notulae criticae ad floram Hispaniae pertinentes. I. – Bull. Brit. Mus. (Nat. Hist.) Bot. **1(4):** 81-122.
— 1954b: La riqueza botánica de la sierra de Cazorla. – Anuario Adelantamiento Cazorla **3:** 27-33.
— 1954c: A revisión of the Spanish species of *Tanacetum* L. Subsect. *Leucanthemopsis* Giroux. – Anal. Inst. Bot. A. J. Cavanilles **12(2):** 313-377.
— 1954d: *Fumana paradoxa* Heywood, sp. nov. – Pp. 174-181 in: Guinea, E., Cistáceas españolas (Con exclusión del género *Cistus*). – Madrid.
— 1955: *Narcissus hedraeanthus* (Webb & Heldr.) Colmeiro. – Curtis´s Bot. Mag. **170:** t. 248.
— 1956: On the nomenclature of *Cytisus striatus* (Hill) Rothm. and its varieties. – Agron. Lusit. **18:** 87-88.
— 1957a: Flora Europaea. Sample pages of a proposed Flora of Europe. – Leicester.
— 1957b: The taxonomy and distribution of *Genista lobelii* and allied species. – Collect. Bot. **5(2):** 515-518.
— 1958: The presentation of taxonomic information. A shot guide for contributors to Flora Europaea. – Leicester.
— 1959a: The nomenclature and typification of *Ballota hispanica* (L.) Benth. – Agron. Lusit. **20:** 199-204.
— 1959b: A check list of the Portuguese *Compositae-Chrisantheminae*. – Agron. Lusit. **20:** 205-216.
— 1960a: Problems of geographical distribution and taxonomy in the Iberian Peninsula. – Feddes Repert. **63(2):** 160-168.
— 1960b: The presentation of taxonomic information. A short guide for contributors to Flora Europaea. Supplementum. – Leicester.
— 1961a: The flora of the Sierra de Cazorla. I. – Feddes Repert. **64:** 28-73.
— 1961b: Catalogus Plantarum Vascularium Hispaniae. Fascículo I. – Madrid.
— 1961c: On the identity of *Caucalis platycarpos* L. and *C. daucoides* L. – Agron. Lusit. **22:** 11-13.
— 1961d: A preliminary survey of the genus Loeflingia in the Iberian peninsula. – Agron. Lusit. **22:** 7-10.
— 1964: The genus *Sesamoides* Ortega. – Feddes Repert. **69(1):** 40-44.
—1975: *Leucanthemopsis* (Giroux) Heywood – A new genus on the *Compositae-Anthemideae*. – Anal. Inst. Bot. Cavanilles **32(2):** 175-187.
— 1976: *Anthemidinae-Leucanthemopsidinae*. – Pp. 168-177 in: Tutin, T. G. & al. (eds.) Flora Europaea **4.** – Cambridge.
— (cons. ed.) 1978: Flowering Plants of the World. – Oxford
— 2000: M. J. Carrau & Domínguez, M. "Entrevista a Vernon H. Heywood" – Metòde (a magazine of scientific divulgation of the University of Valencia) **26:** 15-17.
— 2004: Mis primeros viajes por España. – Mètode **41:** 37-45.
— & Ball, P. W. 1962: Taxonomic and nomenclatural changes in the Spanish flora. – Feddes Repert. **66:** 149-157.

— & P. W. Ball 1963: Taxonomic and floristic research in Spain. 1940-1962. – Webbia **18:** 445-472.
—, Brummitt, R. K., Culham, A. & Seberg, O. (eds) 2007: Flowering Plant Families of the World. – Kew.
Laguna, E., Rivera, D., Tomás-Barberán, F. A. & Obón, C. 2023a: In memoriam, Vernon H. Heywood (1927-2022). – Collect. Bot. **42:** 0002. https://doi.org//10.3989/collecbot.2023.v42.002. (2023b).
—, Rivera, D., Tomás-Barberán, F. A. & Obón, C. 2023b: In memoriam, Vernon H. Heywood (1927-2022). – Conserv. Veg. **26:** 44-45.
López González, G. 1985: El nombre correcto de Arenaria lithops Heywood y otras aclaraciones nomenclaturales sobre las especies españolas de este género. – Anales Jard. Bot. Madrid **42(1):** 258.
— 1990: *Arenaria* L. – Pp. 172-224 in: Castroviejo, S. & al. (eds.) Flora Iberica. Plantas Vasculares de la Península Ibérica e Islas Baleares, **2.** – Madrid.
Marrero, A. 2023: Vernon Hilton Heywood (Edimburgo, 24 de diciembre de 1927 – Reading, 17 de septiembre de 2022. Una breve biografía. – Bot. Macar. **32:** 81-94.
Mayer, F. G. 1966: *Narcissus* species and wild hybrids. – Pp. 74-76 in: Lee Jr., G. S. (ed.) Daffodil Handbook. – A special Issue of the American Horticultural Magazine **45 (1):** 74-76.
McNeill, J. 1962: Taxonomic studies in the *Alsinoideae*. I. Generic and infrageneric groups. – Notes Roy. Bot. Gard. Edinburgh **24:** 79-155.
Roger-Smith, H. R. 1948: In memoriam. Paul Leon Giuseppi. 1881-1947. – Alp. J. **56:** 277-279.
Sventenius, E. R & Bramwell, D. 1971: *Heywoodiella* genus novum. – Acta Phytotax. Barcinon. **7:** 1-8.
Tutin, T. G., Heywood, V. H., Burges, N. A., Valentine, D. H., Walters, S. M. & Webb, D. A. (eds) 1964: Flora Europaea, **1.** – Cambridge.
Waterson, C. D. & Shearer, A. M. 2006: Biographical Index of Former Fellows of the Royal Society of Edinburgh 1783-2002. Part I. A-J. – Edinburgh.

Address of the author:
Benito Valdés,
Departamento de Biología Vegetal y Ecología, Facultad de Biología, Universidad de Sevilla, 41012 Sevilla, Spain. E-mail: bvaldes@us.es

Werner Greuter

Vernon Heywood and OPTIMA's four Musketeers

Abstract

Greuter, W.: Vernon Heywood and OPTIMA's four Musketeers. — Fl. Medit. 34: 395-399. 2024. — ISSN: 1120-4052 printed, 2240-4538 online.

The circunstamces that led to the creation of OPTIMA (Organisation for the Phyto-Taxonomic Investigation of the Mediterranean Area), the efforts of the four botanists that promoted its creation (the four Mosketeers: V. V. Heywood, H. Runemark, G. Moggi and W. Greuter) and the fundamental role played by V. H. Heywood in its origings and development are emphasized.

Key words: Moggi, Runemark, Sauvage, Guinochet, Ozenda, Quézel, Hainard, Charpin, Burdet, Montpellier, Goulandris, Girardin, Miège, Aymonin, Kamari, Phitos, Iraklion, Leningrad, Palermo.

Article history: Received 30 January 2024; received in revised form 20 February 2024; accepted 22 February 2024; published 21 December 2024.

Introduction

Benito Valdés has just shown to us the deep Mediterranean roots of Heywood's scientific interests and, indeed, of his whole personality. I will continue his story, while focusing on Heywood's role in the setup and early history of OPTIMA.

Let me start in the year 1973, a crucial date in this respect. Heywood was then deeply involved in the publication of Flora Europaea, being the secretary of the editorial committee of that gigantic undertaking, the largest cooperative enterprise in European botany so far. Leading French botanists were notoriously jealous of that success story, and sour that it was an exclusively British feat. They decided that it was the turn of France to match Flora Europaea by launching their own project, centred in France: a new Flora Mediterranea.

When the intent to launch that project became known, Heywood was genuinely alarmed: not so much for being fearful of the competition as for the predictable failure of the new project which, same as the demise of the first version of the Flora of North America project in the U.S.A., was bound to compromise the burgeoning sympathy of European funding agencies toward taxonomic biology triggered by Flora Europaea. In France of those days, systematic botany was notoriously languishing or even facing extinction, and expert human resources, such as would be required for the new project, were scant or non-existent.

Heywood then prompted Hans Runemark in Lund, Sweden, to invite for and host a brainstorming meeting where these dangers and possible remedies could be discussed. The

meeting took place in early 1974; in addition to Heywood (1927-2022) and Runemark (1927-2014), those invited were Guido Moggi of Florence, Italy (*1927), and myself (*1938) who was then sharing my time between Geneva (Switzerland) and Kifisiá in Greece. We were the four Musketeers mentioned in the heading, and indeed the number four played an all but magical role in the events here related. Apart from the Lund group, the figureheads of the French initiative also were four, to name: Charles Sauvage, Montpellier (1909-1980), Marcel Guinochet of Orsay (1909-1997), Paul Ozenda of Grenoble (1920-2019), and Pierre Quézel of Marseille (1926-2015). Last not least, there were the four "young wolves" at Geneva: Pierre Hainard, André Charpin, Hervé Burdet, and myself, who were my faithful support during those early days.

The Lund meeting led to the inception of OPTIMA, including the invention of its name. A sleepless night following some heavy aquavit drinking (an unavoidable custom in Lund, as we soon found out) brought about the invention of the "Organisation for the Phyto-Taxonomic Investigation of the Mediterranean Area", enthusiastically adopted, among other things, because it resulted in a catchy acronym. (We did not go public with the matching designation I had coined for the French group, in allusion to the "systématique synthétique", the catchword of the Guinochet school: Projet d'Etude Syn-Systématique Intégrale de la Méditerranée Autonome".) The real break-through of the Lund meeting was not, however, the new acronym: it was the consensual recognition that writing a Mediterranean Flora was not only a premature idea doomed to failure, but that as a preliminary step, it was highly desirable to bring Mediterranean botanists together and getting them to establish transnational contacts and a lively exchange of information. The Mediterranean being an incredibly fragmented and multiform area, not only geographically and politically (with its ca. 30 independent states and major islands), but also linguistically and culturally, with its countless languages using seven different scripts. This was the message the four Musketeers were going to bring to the French Symposium.

At the said symposium, "La Flore du Bassin méditerranéen. Essai de systématique synthétique", in Montpellier in June 1974, we were not however allowed to present the idea ourselves. Being part of the series "Colloques Internationaux du C.N.R.S." and abiding by its rules, half of the participants had to be French and the other half invited by the French organisers; so that the meeting was strongly manipulated by the latter, who during a very stormy concluding session came up with their own idea of a Mediterranean botanical association, and asked for the symposium's mandate to implement it. Heywood's resolute and brilliantly presented protest prevented any such a decision. Meanwhile I had prepared a draft constitution for OPTIMA, which the four of us edited and agreed upon while sitting at a sunny table in front of a Montpellier coffee shop. We decided to move immediately, and shortly afterward a written invitation was widely distributed, to join OPTIMA by approving its constitution and the proposed first International Board and Council (consisting of 22 botanists of as many different countries, who had agreed to support our idea).

In spite of an outspoken written protest by the French group, in which they claimed we were pirating their idea (when in actual fact just the reverse had happened), OPTIMA met with instant success, having obviously hit a gap in the market: by the deadline indicated, October 1st of 1974, which is OPTIMA's foundation date, exactly 100 persons from all around the Mediterranean (and indeed the World) had signed up, thus becoming our founding membership.

OPTIMA's success didn't stop there. By the end of 1975 we had 341 members (including 9 member institutions), and one year later, 422 members (18 institutions). The OPTIMA Secretariat, initially hosted in Reading by Heywood, then soon transferred to Kifisiá under my care, was a busy place in those early years. The Goulandris Natural History Museum deserves our thanks for sponsoring those activities, as does Mrs. Lise Girardin and the City Council of Geneva who in March 1975 formally offered to the OPTIMA Secretariat a stable home at the Conservatoire botanique, which implied bearing the production and mailing cost of our publications. As my then boss in Geneva, Jacques Miège (1914-1993), had dropped his initial, luke-warm support of OPTIMA out of solidarity with his French compatriots, the City of Geneva's political decision was of utmost importance for the Organisation.

This may be the place to note that the leaders of French botany, all university chairholders who fully exerted their powers in matters of tenure and funding (a power that they had been quick to recover, in the aftermath of the initially successful student revolt of 1968), remained hostile toward OPTIMA for many years. Few French botanists then dared becoming OPTIMA members, the prominent exception being Gérard Aymonin (1934-2014) who, being professor at the Muséum National d'Histoire Naturelle in Paris, lived outside the sphere of influence of academia; indeed, dozens of young French botanists, who joined OPTIMA then, did so in incognito and were omitted from our membership lists.

As you will by now have perceived, Heywood was in many ways OPTIMA's spiritual father. His ideas on what was needed to make membership attractive to many, heavily influenced the development of the Organisation's action programme. The set-up of scientific committees, the offer of reprint exchange facilities (in a time when reprints were still

Fig. 1. Part of the participants at the I OPTIMA Meeting, Heraklion, Krity, 22-28 September, 1975. 1-4, The four Musketeers: 1, V. H. Heywood; 2, W. Greuter; 3, H. Runemark; 4, G. Moggi. 5-6, The organizers: 5, G. Kamari; 6, D. Phitos (Photo provided by Prof. Georgia Kamari).

widely used and circulated), the opportunity to offer or request research materials (seeds and propagules, or plant specimens for exchange), the OPTIMA awards system, all this and much more prospered under Heywood's guidance; the Med-Checklist project (which was never completed due to the unfortunate failure to obtain ongoing funding) was his particular pet. But first and foremost in his heart were the OPTIMA Meetings (Fig. 2).

We are here celebrating the 17th such Meeting, all of which I attended (Heywood was present at all but one, as was Georgía Kamari now here with us). The first Meeting was organised by herself and her husband, Dimitrios Phitos, who sadly cannot be here today, due to ill health. It took place in September 1975 in Iraklion (Crete, Greece), less than one

Fig. 2. Prof. Vernon Hilton Heywood during the last OPTIMA Meeting he attended (XV Meeting, Montpellier, 6-11 June, 2016) (Photo C. Obón).

year after OPTIMA's founding date, and was a remarkable success. There were 72 registered participants in attendance (32 Greek, 40 foreign), which may seem few, but is quite a feat if one considers that the official invitation to hold the Meeting in Crete was issued as late as July 1975, being presented, by a Greek delegation, to a Board Meeting, during the 12th International Botanical Congress in Leningrad. Within merely two months, the programme was set up, the speakers enrolled, and the excursions organised (an excursion guide was printed, in which several new species were described and named). The OPTIMA Meetings were to become a genuine success story, the main reasons being: the high scientific standard of the scientific programmes; the platform they offer to the younger generation of botanists, particularly but not exclusively of the host country, to present themselves before a distinguished international audience; and the correlated fact that among the attendees there continues to be a high proportion of faithful patrons, not to say addicts, who are want to miss even a single Meeting unless prevented from attendance by cogent reasons (such as the Twin Towers terrorist attack of 11 September 2001, two days ahead of the opening of the 10th Meeting in Palermo).

To conclude: only one-half of OPTIMA's four Musketeers are still alive, and none of the French group. We stand today to honour the memory of the most influential of OPTIMA's fathers, Vernon Heywood, in full awareness of the importance of his contribution to our Organisation's inception and long-term success.

Addresses of the author:
Werner Greuter[1,2],
[1]Botanischer Garten, 14195 Berlin, Germany.
[2]Herbarium Mediterraneum Panormitanum, 90133 Palermo, Italy.
E-mail: w.greuter@bgbm.org