

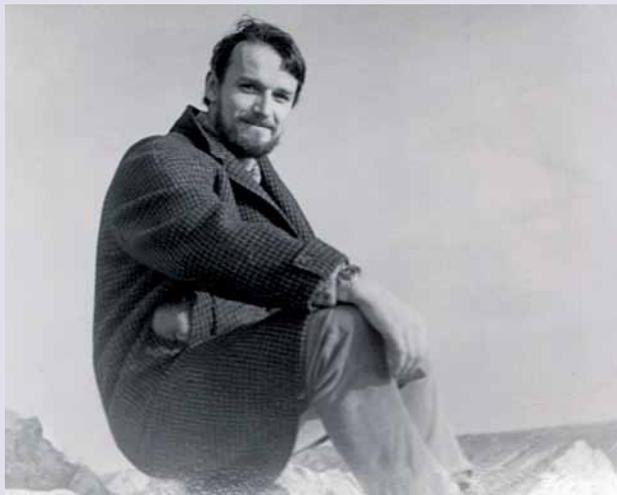
## OBITUARIES

## QUENTIN OLIVER NEWTON KAY (1939–2017)

Quentin Kay was born in Reading, on 29th March 1939, where he and his three elder brothers, John, Robin and Graham, grew up in an academic atmosphere. His father, Herbert Davenport Kay, was a distinguished biochemist and a Fellow of the Royal Society, while his mother, Beatrice, was a botanist. Both parents had separate and significant influences on him during his formative years, but his early interest in plants was undoubtedly nurtured by his mother who introduced him to the British flora. Among other things, they went on holidays together, cycling from youth hostel to youth hostel and exploring the natural history of the English countryside.

Quentin was educated at Leighton Park, a small, independent Quaker boys' school with a reputation for high pupil entry into Oxford and Cambridge Universities, although the Kay family was not Quaker. The success of Leighton Park then was due largely to the energy, vision and ambition of John Ounsted, its young headmaster. Ounsted was a man of great intellect and a good field botanist, well known in the BSBI, and his infectious enthusiasm for natural history, particularly birds and plants, was an inspiration to Quentin and many other boys who passed through the school at that time. Quentin often spoke fondly of Ounsted and the influence he had on him, not only as a naturalist but also as a committed pacifist. Like his mentor, he was soon able to travel independently and widely in the English countryside and indulge his passion for plants, birds and geology. Robin Kay recalled the time when as a young man Quentin became 'fixed on botany like his mother and went quartering the countryside on his Corgy motorcycle looking for interesting specimens'.

Quentin excelled at school and gained entry to Magdalen College, Oxford, initially to study biochemistry. However, he switched his interest and eventually became an exhibitor in Botany from 1957 to 1960. While at Oxford he became a supporter of the Campaign for Nuclear Disarmament, undoubtedly influenced by his education at Leighton Park. He also developed a keen interest in archaeology and became an active member of the university's Archaeological



Quentin Kay.

Society, fostering an interest in ancient history which stayed with him throughout his life.

He stayed on at Oxford as a postgraduate research student and completed his D.Phil., *Experimental studies of selected weeds*, under the supervision of Stan Woodell. The rather vague title belies a thesis that describes a detailed investigation of the origin, variation and distribution of the mayweeds, *Tripleurospermum inodorum* (Scentless Mayweed) and *T. maritimum* (Sea Mayweed), the main results of which were published later in two separate papers in *Watsonia* (Kay, 1969; 1972). Nearly 40 years on, these accounts remain fresh, clear and relevant to British botany. He became an established authority on the Anthemideae, particularly mayweeds and chamomiles, and was for many years the BSBI referee for these difficult taxa, never underestimating how puzzling they were to recorders. I remember asking him for useful tips for separating the two mayweeds in the field. He replied, mischievously: 'if it's near the sea it's probably *Tripleurospermum maritimum*!'. His three separate accounts of *T. inodorum*, *Anthemis cotula* (Stinking Chamomile) and *A. arvensis* (Corn Chamomile), which were published in the *Journal of Ecology's* Biological Flora of the British Isles series (Kay,

1971a, b; 1994a), are the standard points of reference for these species.

After leaving Oxford in 1964 he secured a post as Assistant Lecturer in Botany in the Department of Botany, University of Wales, Swansea, replacing Tony (A.J.E.) Smith who had moved to Bangor. Judy Cassells (née Harrison), who was an undergraduate student in the department at that time, remembers a youthful Quentin arriving in fell boots and shorts, which endeared him immediately to the students who were only a few years his junior. During those early years, he lived in the west of Swansea with his first wife, Hilary, which allowed him easy access to the university and to the flora of Gower which he came to know so well. He seized the opportunity to study the ecology and reproductive biology of *Draba aizoides* (Yellow Whitlowgrass), which in Britain is confined to the south Gower cliffs. Surprisingly, little had been written about this relict population until he and Judy published their account in the *Journal of Ecology* (Kay & Harrison, 1970). However, these were difficult years for him. Tragically, and not long after moving to Swansea, Hilary died as a result of a serious heart condition.

Quentin assumed responsibility for the department's herbarium and took on Smith's undergraduate teaching duties in cryptogamic botany, plant taxonomy and systematics. His practical classes were often ingenious and refreshingly different to the typical lab classes run by his colleagues. Chemotaxonomy usually figured somewhere in his courses, no doubt influenced by his background in biochemistry. But lecturing was not one of Quentin's strong points. He had a rather quiet speaking voice and a distracting habit of walking around energetically while he spoke. However, he had a strong empathy and a genuine rapport with his students who found him approachable and friendly, traits that were not common among university staff in those days. Under his supervision, many undergraduate students completed excellent research projects. Notable among these was the Biological Flora account of *Draba aizoides* he wrote with Judy Harrison and two projects that investigated floral morphology, nectar production and insect interactions in *Silene dioica* (Red Campion), whose results were published in *New Phytologist* (Kay *et al.*, 1984).

For many years Quentin organised and ran all the botany field courses at Swansea, many of which were

excursions to botanical hotspots in Gower and the Brecon Beacons, but also to various venues in Ireland, Mid Wales, the Isles of Scilly and Spain. He was an outstanding field botanist and, for those who could keep up, a day in the field with him was inspirational. Whether they had been with him on the edge of Lady's Island Lake in County Wexford at 4am to see *Achillea maritima* (Cottonweed) or had paddled down the River Llia to see *Trollius europaeus* (Globeflower), his students left university with indelible memories. He had an unfailing belief that students needed a well-rounded appreciation of the British flora. I well remember one group gasping for air as they followed him up a steep, scree-filled gully in the Brecon Beacons to an outcrop where a tiny, nondescript patch of Purple Saxifrage was clinging to a rock. Pointing to a withered flower he exclaimed '...and here it is, *Saxifraga oppositifolia*, at its southern limit in Britain'. Quentin had an encyclopaedic knowledge of the British Flora and his excursions were punctuated with historical, archaeological and geological detail. He had little faith in illustrated floras, so his classes were weaned on the *Excursion Flora* and when we took students to southern Spain, he insisted that they use *Flora Europaea* to identify their specimens.

Quentin's academic interests were firmly embedded in ecological and population genetics and in his early years at Swansea much of his research concentrated on the weedy species with which he was so familiar. He supervised a steady stream of Ph.D. students on topics that ranged from genetic variation in herbicide resistance in mayweeds to self-incompatibility in *Sinapsis arvensis* (Charlock). Later, he developed a broader interest in the ecology of flowering, particularly in relation to resource costs, insect-flower interactions and pollination. His review article *The comparative ecology of flowering* (Kay, 1987) illustrates the classic, rounded approach he took to population genetics, where morphology, biotic interactions and ecology are all included in the model. He also became interested in the biophysical properties of petals that influence pollinator choice and, using techniques such as ultraviolet photography to study flower colour characteristics, he went on to describe and classify patterns of pigment distribution, light reflection and cell structure in petals in that context (Kay *et al.*, 1981).

The British flora was always at the heart of Quentin's interests and in the later years of his

academic career his research concentrated more on genetic variation in natural populations. The catalyst for this was the successful use of isoenzyme analysis to study heterozygosity in *Polygala vulgaris* (Common Milkwort), which he undertook with Andrew Lack (e.g. Lack & Kay, 1988). Soon after this he was approached by the Countryside Council for Wales (now part of Natural Resources Wales) to establish a research programme on the reproductive biology, population genetics and demographic ecology of rare plants in Wales. The investigation, which he carried out with Rosemary John, focused on 32 rare species of threatened lowland habitats in Wales, particularly those endemic to oceanic western Europe, which are endangered or declining, such as *Carum verticillatum* (Whorled Caraway), *Chamaemelum nobile* (Chamomile), *Cirsium dissectum* (Meadow Thistle), *Vicia orobus* (Wood Bitter-vetch) and *Wahlenbergia hederacea* (Ivy-leaved Bellflower). He stressed that species like these, which have recently become rare, are much more seriously threatened than 'old' rare species that have always been rare and whose populations are relatively stable. The reports that describe this investigation and its results (Kay & John 1993; 1994; 1995) are exemplary studies in conservation genetics. He believed, strongly, that if a conservation programme was to have any prospect of success then the population biology, breeding system and patterns of genetic variation of the species involved must be taken into account and should inform and guide the conservation policy in statutory UK agencies.

Clarity of thought, meticulous preparation and a lucid writing style are evident in everything Quentin wrote. Good examples include his account of *The history, ecology and distribution of the flora of Glamorgan*, one of the chapters that prefaces the county flora (Kay, 1994b), the review he wrote with David Stevens on *The frequency, distribution and reproductive biology of dioecious species in the native flora of Britain and Ireland* (Kay & Stevens, 1986), which drew attention to the surprising lack of information available on dioecious taxa in our flora, and a fascinating account of the evolution and ecology of endozoochory in the European flora (Kay, 1992). He maintained that the best way to learn something was to discover it for yourself, so there was never a hint of imitation in his words, just the uncomplicated fluency that comes with understanding.

Quentin became a member of the BSBI in 1964

and was the Recorder for West Glamorgan from 1983 to 2004. He was a meticulous recorder with high standards, which he also expected from those who submitted records to him. In 1969 he began a collaboration with Gwynn Ellis and Arthur Wade to produce a new *Flora of Glamorgan* and in the following 20 years he worked tirelessly on this project. It was during this time that I came to know him as a friend and colleague, accompanying him and Blodwyn, his faithful Labrador, on many fearless car journeys in his red Renault 4 to all corners of the county. There were only a few active field botanists in South Wales in those days and Quentin was responsible for a huge amount of the data published in the *Flora of Glamorgan*, which he co-authored with Gwynn and Arthur in 1994. He made numerous contributions at BSBI meetings, led field meetings and published in *Watsonia*, *BSBI News* and the *BSBI Welsh Bulletin*. He also contributed regularly in meetings of the Ecological Society's Ecological Genetics Group, gave plenary lectures at international meetings and ran the occasional course on bryophytes and lichens for the Department of Adult and Continuing Education at Swansea.

Quentin travelled widely as a botanist but he had a special fondness for the Mediterranean flora. Equipped with a copy of Lieutenant Commander C.T. Stocken's *Andalusian Flowers and Countryside* and one or two carefully chosen volumes of *Flora Europaea*, he made several trail-blazing trips to Spain in the 1970s. There were no useful pocket guides to the Mediterranean in those days, but he got around this with an impressive, almost intuitive grasp of the Mediterranean flora which I witnessed on excursions with him in Spain and Crete. These were not species-ticking trips, but expeditions with purpose driven by curiosity, scientific observation and specimen collections. Much of the data that formed the basis of his work on the ultraviolet reflection patterns of petals was collected on these expeditions.

Quentin took early retirement from academia in 1994, after 30 years of service. He was only 55, but I think he had had enough of the stressful, academic rat race which had become normalised in modern, university life. Furthermore, he had become actively involved in the project to establish a National Botanic Garden of Wales at Llanarthne, Carmarthenshire, and retirement allowed him to spend more time on this. He was an influential member of the original steering

committee that established the Garden and his expertise inspired and guided the instigation and development of the 'Conserving Welsh Plants and Habitats' project. His time in retirement also allowed him to record and map the flora of Gower on a detailed scale, with a view to producing a definitive flora of the region.

For most of his life Quentin lived in a Gower cottage in Cwm Ivy, near Whiteford National Nature Reserve. He was an obsessive collector of second-hand books, particularly local floras, and the shelves in his cottage were stacked with volumes that would have provided most BSBI members with hours of browsing entertainment, with a complementary glass of homemade elderflower wine in hand and a Haydn quartet playing from a gramophone in the background. His garden was a botanical wonderland, complete with an eclectic assortment of plants that he had collected on overseas trips, fruit trees that always seemed to produce too much fruit, various experimental plots and Swallows that returned to the outbuildings every year.

Quentin Kay belonged to that post-war school of academic botanists who lived through a golden age of British botany and who enriched the BSBI with knowledge and understanding, which they shared freely. He was a gentle, calm, rather shy man, but courageous in his beliefs and full of confidence in what he knew. Always modest, he had an extraordinary intellect and was good at everything he put his mind to. In order to construct distribution maps on his old Amstrad word processor, he learned a variant of the computer language BASIC, and reprogrammed the computer. Once I found him installing new windows to the front of his cottage, all the more impressive when I discovered that he had made the windows himself. He also fitted his own kitchen, did the plumbing and made the gates. He was an accomplished scuba diver who kept detailed records of all his dives. He was an excellent photographer, he enjoyed sport, played a bit of golf and he was a big fan of the Simpsons. He was fascinated by maps and his navigational skills were uncanny. I never heard him speak ill of anybody.

Quentin shared the last 30 years of his life with his wife Eileen, who survives him and whom he adored. He had no children of his own but he had a close, kindred relationship with Eileen's son, Nick.

Quentin died on 18th December 2017, after a long illness. He leaves a great vacuum in Welsh botany.

## References

- Kay, Q.O.N. 1969. The origin and distribution of diploid and tetraploid *Tripleurospermum inodorum* (L.) Schultz Bip. *Watsonia* 7: 130–141.
- Kay, Q.O.N. 1971a. *Anthemis cotula* L. Biological Flora of the British Isles. *Journal of Ecology* 59: 623–636.
- Kay, Q.O.N. 1971b. *Anthemis arvensis* L. Biological Flora of the British Isles. *Journal of Ecology* 59: 637–648.
- Kay, Q.O.N. 1972. Variation in sea mayweed (*Tripleurospermum maritimum* (L.) Koch) in the British Isles. *Watsonia* 9: 81–107.
- Kay, Q.O.N. 1987. The comparative ecology of flowering. *New Phytologist* 106 (Supplement): 265–281.
- Kay, Q.O.N. 1992. Edible fruits in a cool climate: the evolution and ecology of endozoochory in the European flora. In: *Fruit and seed production: Aspects of development, environmental physiology and ecology* (ed. C. Marshall & J. Grace), pp. 217–250. Cambridge University Press, Cambridge.
- Kay, Q.O.N. 1994a. *Tripleurospermum inodorum* (L.) Schultz Bip. Biological Flora of the British Isles. *Journal of Ecology* 82: 681–697.
- Kay, Q.O.N. 1994b. The history, ecology and distribution of the flora of Glamorgan. In: *Flora of Glamorgan* (A.E. Wade, Q.O.N. Kay & R.G. Ellis), pp 59–79. HMSO, London.
- Kay, Q.O.N. & Harrison, J. 1970. *Draba aizoides* L. Biological Flora of the British Isles. *Journal of Ecology* 58: 877–888.
- Kay, Q.O.N. & John, R. F. 1993. *Population genetics and demographic ecology of some scarce and declining vascular plants of Welsh lowland grassland and related habitats*. Countryside Council for Wales, Contract Science Report No. 31. Bangor.
- Kay, Q.O.N. & John, R. 1994. *Population genetics and demographic ecology of some scarce and declining vascular plants of Welsh lowland grassland and related habitats*. Countryside Council for Wales, Contract Science Report No. 93. Bangor.
- Kay, Q.O.N. & John, R. 1995. *The conservation of scarce and declining species in lowland Wales: population genetics, demographic ecology and recommendations for future conservation in 32 species of lowland grassland and related habitats*. Countryside Council for Wales, Contract Science Report No. 110. Bangor.
- Kay, Q.O.N. & Stevens, D. P. 1986. The frequency, distribution and reproductive biology of dioecious species in the native flora of Britain and Ireland. *Botanical Journal of the Linnean Society* 92: 39–64.
- Kay, Q.O.N., Daod, H.S. & Sturton, C.H. 1981. Pigment distribution, light reflection and cell structure in petals. *Botanical Journal of the Linnean Society* 83: 57–84.
- Kay, Q.O.N., Lack, A.J., Bamber F.C. & Davies C.R. 1984. Differences between sexes in floral morphology, nectar production and insect visits in a dioecious species, *Silene dioica*. *New Phytologist* 98: 515–529.

Lack, A.J. & Kay, Q.O.N. 1988. Allele frequencies, genetic relationships and heterozygosity in *Polygala vulgaris* populations from contrasting habitats in southern Britain. *Biological Journal*

*of the Linnean Society* 34: 119–147.

---

Charles R. Hipkin