

# E. A. C. L. E. (Ted) Schelpe (1924-1985) — a biography

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## ABSTRACT

Prof. E.A.C.L.E. Schelpe was born in Durban on 27 July 1924 and died in Cape Town on 12 October 1985. He studied at the University of Natal and at Oxford, England. He was awarded an M.Sc. (S. Afr.) for a thesis on the ecology of the Natal Drakensberg and a D. Phil. (Oxon.) for a thesis on the ecology of bryophytes. For a brief period he was Curator of the Fielding Herbarium, Oxford. In 1953 he was appointed Lecturer in Botany at the University of Cape Town, until in 1973 he was awarded a full professorship (*ad hominem*) and the title of Director of the Bolus Herbarium. Here he established a school of taxonomy and promoted 22 theses. His main fields of research were the taxonomy and phytogeography of Pteridophyta (especially African groups) and of Orchidaceae. He has 112 publications to his credit and collected over 7 000 numbers in various regions of Africa, in Europe and the Himalayas. He was a keen gardener and was active in several societies promoting horticulture, orchidology and nature conservation. He was a member of several scientific committees and was repeatedly honoured for his work. Three children were born from his marriage to Sybella Gray, also a botanist.

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### PARENTS, EARLY YOUTH AND SCHOOL DAYS

Shipwrecks and disasters at sea have been very much part of the history of southern Africa. One such event had a profound effect on the history and development of botany, not only on this subcontinent but in Africa as a whole.

Edmund and Martha Schelpe, refugees from Belgium during the First World War, were *en route* from England to start a new life in Australia when their ship caught fire near Durban. All the passengers were landed in Durban to await further arrangements for their journey. The couple liked the city and its climate so much that they decided not to go on to Australia but rather to settle in Durban. Their only child was born there on 27th July 1924 and christened Edmund André Charles Louis Eloi — 'Ted' as he later became known.

The Schelpe parents came from the Brugge area of Flanders and had both Flemish and French as home languages. He was a musician and soon obtained a post as organist at the Roman Catholic Cathedral in Durban and later opened his own school of music in that city. Ted's mother, through her background and training in the traditional art of lace-making, taught at the Durban Technical Col-

lege. In Durban with its subtropical climate she found scope for her interest in plants, awakened in her by her own father's enthusiasm for gardening. It was in this environment that young Ted grew up, attending firstly Marist Brothers's College and then Durban Boys High where he matriculated at the early age of 17.

Ted always remembered the excitement of seeing and collecting his first wild orchid plant at the top of Bain's Kloof Pass while on his way to Cape Town by bus with his father in 1936 when he was only 12 years old. In the same year he wrote a school essay on the perennial theme of 'What do you wish to be when you grow up?'. In that essay he made it quite clear that he was going to be a 'Professor of Botany'.

On visits to the Cape Ted spent much of his time in the municipal botanical gardens where he met the horticultural staff and watched the repotting of greenhouse plants, especially orchids. He also met a Mr Duncan of Jutas, the publishing firm, who was a keen grower of orchids. He spent many hours with this enthusiast at his home chatting about orchids 'over ginger beer and biscuits'. This contact was a significant one because Duncan noted Ted's remarkable memory for plants and later wrote to his father saying that the boy should be given every encouragement to take up botany as a profession.

Prof. Michael Webb of Stellenbosch and Ted Schelpe were contemporaries in their early school days in Durban, both attending Marist Brothers. They lived close to each other and often found themselves walking to school together. One interest they shared was stamp collecting and this brought Michael to the Schelpe home. He remembers the house in Currie Road standing in large, impressive grounds. A fine jacaranda tree in the front garden had numerous exotic orchids attached to it and of these Ted was very proud. Beyond it stood a superb brick and glass conservatory with a spray irrigation system which his parents had built for his orchid collection — and this all while he was still in his early teens. During this period Michael Webb remembers Ted as being a very self-assured and friendly boy, interested mainly in his hobbies: plants and, to a lesser extent, stamps.

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## UNIVERSITY OF NATAL AND FIRST EMPLOYMENT

No wonder then that Ted Schelpe went to Pietermaritzburg to enrol at the then Natal University College for a degree in botany. He arrived there in 1941, just after Prof. Adolf Bayer had taken over the department from Prof. John Bews who had become Vice-Principal. In 1943 Ted obtained his B.Sc. degree with distinction in botany, the other major being chemistry. **Fig. 1.**



FIG. 1.—B.Sc. graduation, Pietermaritzburg, 1943.

Michael Webb met up with Ted again at university, arriving a year later, so that Ted demonstrated to him in his first year. As a demonstrator he was very helpful but meticulous about details and neatness of anatomical and morphological drawings. Michael also remembers well Ted's pet hate at university — Prof. Bayer's habit of referring to him as 'EAGLE' Schelpe! Michael Webb and several other students remember with great pleasure the excursions which Ted organized for botany and zoology students. (See also the paragraph *Collecting expeditions and collections* below). In December 1943 he took them on a two-week excursion down to Port St Johns, and in December 1944 he organized a major expedition to his favourite stamping ground in the Drakensberg, the Cathedral Peak area. It was obvious to the other students that Ted knew the area and its plants extremely well.

Prof. Olive Hilliard remembers that Ted often rounded up the students on a Saturday, or even a Sunday, and took them out to Town Bush Valley or

Chase Valley on the municipal bus to teach them something about the local plants.

Much of the material he collected in Natal was deposited in the Natal University Herbarium which he was paid to look after during his student days. Consequently numerous labels and species covers are written in his hand. Many of his specimens in the herbarium are labelled 'cultivated in Durban', which gives an indication of the large and varied living collection he must have had at home. Ted Schelpe was accepted by the other students as a leader and they regarded him as an authority on a wide range of subjects. Even in those early student days his knowledge of plants and their names appears to have been encyclopaedic.

All of those involved with Ted in his student days have vivid memories of his favourite pastime: yodelling. In the Drakensberg on excursions or in the department while working, he would break into yodelling, which he apparently performed very well. At sports functions in particular, there would be stamping and clapping and cries of 'Schelpe, Schelpe'. This was the signal for him to leap up and yodel. At one of the swimming galas held at the baths at Alexandra Park he chose to stand on the end of the high diving board, the better to be heard. Needless to say, someone crept up behind him and he did an involuntary dive amid mighty cheers and laughter.

During 1944, towards the end of the Second World War, Ted enrolled with the army and was posted to the Aviation Medicine Research Section of the South African Medical Corps in Johannesburg as a laboratory technician. Here he found himself doing numerous uninspiring blood counts. So when volunteers were asked to 'feed' the experimental bedbugs, Ted was prepared to do anything for a change. The trouble came when all his bedbugs died of overdoses of his blood, so back it was to the bloodcounts. His apparent immunity to bedbugs stood him in good stead during the expedition to the Himalayas: when use had to be made of local accommodation he was the only member of the party who slept in peace.

After demobilization at the end of 1945, he went back to university to complete his thesis for the M.Sc. degree. With the strong ecological bias at Pietermaritzburg, and his great interest in the Drakensberg, it is not surprising that he followed an ecological line of research. His dissertation was entitled *The plant ecology of the Cathedral Peak area of the Natal Drakensberg*. The study began in July 1942 while he was still an undergraduate and continued during several subsequent visits to the area in 1943 and 1944. He chose this area because it was, at that time, biotically one of the least disturbed regions of the range. The greater part of the thesis was written while he was serving in the Medical Corps. He obtained his degree, which was conferred by the University of South Africa (Natal was only a College at the time), in 1946. The thesis remains unpublished.

For the first part of 1947 Ted worked at the Royal Natal National Park as horticulturist preparing the place for the visit of King George VI later that year. He was responsible for laying out the gardens

around the hotel which was owned by the Zunckel family. While there, he built up a fine collection of the fauna and flora of the park and prepared an excellent exhibit. This was so admired by Queen Elizabeth that she asked to see the young man, who unprepared for the occasion, was ushered into her presence in boots and khaki workclothes. Ted was most impressed with the way in which she put him at ease.

#### OXFORD

Late in 1947 he set sail for England. He stopped over in Cape Town and made his first ascent of Table Mountain in the company of Jan Graaff with whom he later teamed up in an expedition to the Himalayas. In Michaelmas term, Ted entered Wadham College to work in the Botany School for the D.Phil. degree under the supervision of the Sherardian Professor, the late T. G. B. Osborn. With his ecological training at Natal University College as background he chose to work on the ecology of lower plants. In Trinity Term (June) 1951 he successfully submitted a thesis entitled *The ecology of Bryophytes on arable land in the Oxford District*. It is surprising that he chose bryophytes as he had not previously shown any special interest in that group. This gave rise to only one short publication, on the techniques for the experimental culture of bryophytes, but this thesis was highly regarded by the late E. F. Warburg, the taxonomist in the Botany School and one of the leading bryologists of his day. A copy of his thesis is still on the open shelves in the Botany School library and shows signs of having been handled frequently.

Ted Schelpe's urge to organize collecting expeditions had not been left behind in Natal, and in 1947 he began planning for a university expedition to Africa (see also *Collecting expeditions and collections* below). He had decided to have a Cambridge botanist in the team and eventually Frank White was provisionally chosen. He was summoned to meet Ted at the Royal Geographical Society's headquarters in Kensington Gore, and so began a life-long friendship. They had received a grant from the University Exploration Society, but on return to Britain found that the expedition was very much in the red. To make up the shortfall they gave numerous lectures, showing the films that had been taken. They also had interviews with the BBC in the very early days of television. Thus they were able to meet their debts and turn the trip into a financial success.

After completing his D.Phil., Ted held a temporary post for a short period as curator of the Fielding Herbarium at Oxford. During his tenure he worked on the ancient herbaria and some recent collections of South American plants. In 1952 he became involved in another collecting expedition, this time a small private one to the Himalayas.

From his expeditions, Ted brought back living plants, mainly orchids, for cultivation in the Oxford Botanic Garden. Some of them still survive. Among them was the attractive epiphytic orchid, *Aerangis rhodosticta* (from Ethiopia). This was exhibited at the Royal Horticultural Society on 17 November 1953 and subsequently became widely grown. The terrestrial orchid, *Eulophia welwitschii*, which he

collected at the Ngong Hills in Kenya, received a unanimous Award of Merit at the R.H.S. on 22 May 1951.

Ted came to Oxford with considerable horticultural skills. His techniques for growing orchids were adopted at the Botanic Garden with conspicuous success. It is said that during one year the orchids he had coaxed into bloom could be seen adorning various young ladies at the Commemoration Balls. The story is possibly apocryphal, but it caused him great amusement.

Ted gave tutorials to undergraduates in his rooms at Banbury Road. Many are the times that a fellow lodger heard him droning on about 'a drupe being a true fruit . . .' Like most Oxford students he enjoyed the camaraderie of groups at the local pubs, particularly the Abingdon Arms, where he is known to have done the flower arrangements for the hostess on a number of occasions. He developed a certain sartorial elegance and always referred to his NBPS—navy blue pinstripe suit! This was in strong contrast to his later years when the safari suit (Fig. 2) or sports jacket and baggy grey flannels were very much in evidence. However, one bit of Oxford garb which stayed with him was his academic gown which he referred to as his 'Basuto blanket' at graduation ceremonies.

Ted is remembered in Oxford with affection as a 'character' with a refreshingly original approach to life, a robust sense of humour and infectious laughter. He often took the lead in organizing get-togethers and parties and his hospitality was proverbial. At his rooms in the evenings on most nights of the week one could meet interesting people from all walks of academic and non-academic life. There were nurses, dons, Chinese scholars, archaeologists and even some of the 1951/52 Springbok Rugby Team, Stephen Fry, Ben Myburg and 'Chum' Ochse. Ted would get out his ukelele and they raised the roof with Sarie Marais and other songs, ducking out to the Pheasant nearby for jugs of ale to keep the voices lubricated. When he returned to South Africa his closest friends thought Oxford might never be the same again.

#### CAPE TOWN: ACADEMIC AND FAMILY LIFE

When he joined the Botany Department at the University of Cape Town in February 1953, Prof. William Edwyn Isaac had just taken over the Department from Prof. Robert Adamson. Ted took over from Audrey Rose-Innes lecturing in general botany, including taxonomy. In 1954 he was promoted to senior lecturer with the sole responsibility of Plant Taxonomy. When Dr Louisa Bolus retired at the end of 1955, after 45 years as Honorary Curator of the Bolus Herbarium, Ted was appointed to the first post of Curator of the herbarium in 1956. In 1968 he was promoted to Associate Professor and in 1973 he was awarded a full professorship (*ad hominem*) and the title of Director of the Bolus Herbarium.

Prof. Schelpe expanded and enriched South African botany by his establishment of a strong plant taxonomy teaching and research school centred in the



FIG. 2. — Among some of the participants of the *Flora of southern Africa* Workshop held at the BRI in January 1982. *Front row* (from left): Ing. P. Bamps, Dr P.H. Raven, Dr B. de Winter, Prof. J.P.M. Brenan; *second row*: Prof. O. Hedberg, Prof. E.A.C.L.E. Schelpe, Mr E.G.H. Oliver, Dr F. Getliffe-Norris, Dr P.J. Cribb, Prof. D. Müller-Doblies; *third row*: Mr R.B. Drummond, Dr O.A. Leistner, Mr L.C. Leach, Dr A.J.M. Leeuwenberg, Dr N.K.B. Robson; *fourth row*: Mr C.H. Stirton, Mr R.O. Moffett, Dr P. Linder, Prof. P.D.F. Kok, Prof. J.J.A. van der Walt, Prof. D.J. Botha, Prof. M.C. Papendorf, Dr D.J.B. Killick. Photo: Adele Romanowski, BRI.

Bolus Herbarium. This is perhaps surprising seeing that he had had no formal training in taxonomy at university.

He took pride in his Oxford approach to tuition for which he said he had to thank Jack Harley. This might have worked in the Oxford environment, but, in my opinion, was not very successful in South Africa. His *modus operandi* was to 'throw a student in at the deep end; and if he sinks then he will be no good, if he swims he'll be a good taxonomist' (some may claim he carried this to extremes). The taxonomy students who did pass through his hands are the following: Associate Prof. A. V. Hall (Assistant Director, Bolus Herbarium), Dr J. P. Rourke (Curator, Compton Herbarium, Kirstenbosch), Dr P.

Goldblatt (Curator of African Botany, Missouri Botanic Gardens), Dr J. P. Jessop and Dr H. R. Tölken (formerly Botanical Research Institute and now Curator and Research Officer respectively, State Herbarium, Adelaide, South Australia), E. G. H. Oliver (formerly Curator of National Herbarium, Pretoria and of Government Herbarium, Stellenbosch, now Flora Research Officer, BRI), and Dr H. F. Glen, Dr H. P. Linder and Miss K. L. Immelman (all Flora Research Officers, BRI). A complete list of his post-graduate students and their theses is given below under *Theses of post-graduate students*.

I first met Ted Schelpe when a fellow student, John Jessop, and I, as enthusiastic budding taxonomists, were introduced to the Bolus Herbarium

towards the end of our first year in 1958. We were somewhat overawed by his presence and the atmosphere of the herbarium, but were soon deeply immersed in what the herbarium and its staff had to offer young taxonomists. In post-graduate courses we received no formal lectures from him, and our taxonomy was learnt through experience and knowledge gained by wading through textbooks, literature and specimens, then sharpened and honed during extended tea-time discussions with him in the Bolus Herbarium.

All who have passed through his taxonomy school will remember Schelpe's Law of Taxonomy: 1, taxonomy is easy provided you have insufficient material and no intermediates; 2, it is much easier to describe a new species than to sink an old one; 3, if you cannot key out a species they are in the process of active speciation. Students found that they learned a lot about plants in their excursions with him, whether to the university's field station at Bain's Kloof, up Table Mountain or just in a ramble around the gardens at Kirstenbosch. In post-graduate examinations students were always apprehensive about the unknown flowers that were presented for placing into families, knowing full well that he was always likely to produce a most unusual specimen, often carefully nurtured in his own garden. But his students soon got to know that Prof. Schelpe's bark was worse than his bite; intense discussions were always broken by his quips, followed by his unique laugh, often accompanied by the preening of that elegant R.A.F.-style moustache which he had cultivated since his earliest student days.

On 29 June 1954 Ted Schelpe and Sybella Gray of Simondium, Cape, who was a junior lecturer in the

Department at the time, were married in St Michael's R.C. Church, Rondebosch. At Oxford he was known to remark that he would have to find a girl who would make a suitable professor's wife. For those of us who have had the privilege of knowing Ted and Sybella: what better choice could he have made? (Fig. 3). Their's was an exemplary partnership in work, hobby and family life. Their three children, Janette, James and Charles, made Ted and Sybella very proud parents. Now grown up, they have, surprisingly, not followed in the botanical footsteps of their parents, but as Janette put it to me, 'two in the family were quite enough'.

#### PLANTSMAN AND TEACHER

Ted Schelpe combined his professional scientific interests with a love of growing plants. He was a plantsman in the real sense of the word. As Michael Byren put it 'Ted took great delight in growing as many different plants as possible and, together with Sybella, the garden at their lovely home, Westfield, must bear witness to this passion. I sometimes got the impression that, with that twinkle in his eyes, even the rarest, most beautiful orchid could not compete with a new season's first strawberries or broccoli!'. Undoubtedly one of Ted's greatest joys was his large fine garden in which he spent many happy hours.

This led Ted into his many involvements with amateurs in the south-western Cape, the rest of South Africa and, eventually, the world. In 1957 he was the motivating force, together with the late Dr A. J. Ballantine, in the formation of the Cape Orchid Society (later the Orchid Society of South Africa) which was launched in the Schelpes' flat in



FIG. 3.—Ted and Sybella Schelpe at the Flora Cosmos Exhibition, April 1983. Photo: Cape Times.

Rondebosch. He was President of this Society from 1977 to 1979. He was also founder and President of the Horticultural Council of the Western Cape and Vice-President of the Cape Horticultural Society. Besides his obvious interest in the botany and taxonomy of orchids, he collected and successfully grew orchid plants — species and hybrids — from all parts of the world. He was a leading figure at most World Orchid Conferences.

Ted also took part in the activities of the Botanical Society of South Africa which he joined as a family member in 1960. In 1963 he was elected to its Council on which he served until his death. From 1976–78 he was Chairman of Council and in April 1982 was elected President of the Society. He was consultant, reader and writer of popular scientific articles for its journal, co-author of the first Wild Flower Guide and he acted as tour leader on excursions to southern Namaqualand.

This in turn led him into involvement in the affairs of the National Botanic Gardens, Kirstenbosch. He represented the Botanical Society's Council on the Board of Trustees, firstly as an alternate trustee

from 1974–77, then as a full member from 1978–83, and again as an alternate from 1983. During the period 1977–78 he acted as the alternate trustee to the Principal of the University of Cape Town. He also served on the Gardens Scientific Committee and he had recently completed a report for the Trustees on the suitability of sites for the establishment of regional gardens.

In the Botanical and Orchid Societies Ted was a judge at many of the flower shows. In the orchid world he was recognized internationally as a good judge (Fig. 4). Sometimes Ted's directness of comment regarding quality was felt to be harsh but with him true praise was reserved for excellence which, when achieved, he was the first to recognize.

Even though Ted was a professor and renowned botanist, he was able to communicate so well with amateurs, whether at meetings, on outings, at University Summer Schools or in discussion groups at his home. The South African orchid community and members of the Botanical Society have over the years been able to benefit from his vast knowledge and practical experience and for this they are deeply



FIG. 4.—Schelpe examining an undescribed species of orchid, later described as *Disa cardinalis* Linder. January 1980. Photo: Die Burger.

grateful. To many South Africans he was also well known for his appearances on the original radio panel in the series, 'Talking of Nature', chaired by Dr Douglas Hey.

#### HEALTH AND LAST YEARS

Ted seems to have been bedevilled by the ease with which he contracted chest infections, mostly in the influenza line. He had a rather highly strung nature and was also a heavy smoker for most of his life. At Oxford he was known for worrying about his latest bout of infection following his most recent outing or expedition. He would stalk into the favourite Abingdon Arms during winter evenings, swathed in an overcoat of sombre hue, full of dire foreboding about the particularly virulent strain of flu virus he had just picked up.

One problem which must surely have had a profound effect on Ted Schelpe's whole physical and mental well-being during the last ten years, especially the last year, was the uncertain future of the Bolus Herbarium and with it, his taxonomy school. During the last few years considerable debate had taken place in and out of the University in both official and private circles on the fate of the Herbarium. In 1984 it was eventually removed from the main campus and moved to the City Campus with the 'promise' that this would only be temporary.

He had just completed reading the galley proofs of the Pteridophyta volume for the *Flora of southern Africa*, during a bout of flu, and had had a full morning's happy discussions with orchid enthusiasts at his home, when he died of cardiac arrest during the evening of Saturday, 12th October.

It was a stunned botanical, horticultural and orchid world that learnt of his death via the national news bulletin on the radio the following day.

Many friends and colleagues, botanists and plant lovers payed their last respects to Ted Schelpe at the Requiem Mass held on 18th October in St Michael's R.C. Church, Rondebosch. The pallbearers were his two sons, James and Charles, his nephew, Nicholas Gray, and three of his former students, Anthony Hall, John Rourke and myself. He was buried at a private ceremony in the burial ground of his wife's family at St George's Anglican Church, Groot Drakenstein.

Michael Byren of the Orchid Society, a long-standing friend, included these words in his oration: 'The suddenness of his untimely death has left a numbness which only time will heal. Ted Schelpe has touched all our lives in some way or another. His scientific integrity, his absolute honesty and, most of all, the zest with which he tackled life and living will not be forgotten.'

#### GRANTS, HONOURS, COMMITTEES

Ted Schelpe held a Nuffield Dominion Travelling Fellowship in 1959 and he received a Bremner Grant from the University of Cape Town in 1966. This enabled him to study primarily pteridophytes, but also Orchidaceae, in overseas herbaria while on sabbatical leave. He was admitted to the Linnean Society in 1949, elected a Fellow of the Royal Society of South Africa in 1969 and a Fellow of the University of

Cape Town in 1976. The South African Association of Botanists bestowed its Senior (Silver) Medal on him in 1980. He was a Fellow and Gold Medallist of the Orchid Society of South East Asia and Gold Medallist of the Orchid Society of South Africa and of the Cape Orchid Society. He received a Silver Medal from the Royal Horticultural Society. Two volumes of South African botanical journals have been dedicated to him: Volume 46 of *Flowering Plants of Africa* and Volume 52 of the *South African Journal of Botany*.

Apart from his involvement in committees and societies mentioned in the section *Plantsman and teacher* (above) he was also a member of the Committee on Pteridophyta of the International Association for Plant Taxonomy (since 1964) and of the International Orchid Commission (since 1966) and Chairman of the Commission and of its Committee on Orchid Taxonomy and Nomenclature (since 1975). He also served on the Advisory Committee for Botanical Research to the Minister of Agriculture and Water Supply since its creation in 1975.

#### FIELDS OF RESEARCH AND PUBLICATIONS

Ted Schelpe's many and varied research and teaching activities are reflected in his publications, both scientific (70) and popular (30), his contributions to conference proceedings (12) and the theses of his post-graduate students (22). (See *List of publications* and *Theses of post-graduate students* below).

His fields of research can be grouped as follows:

##### 1 *Taxonomy of African Pteridophyta*

His main contribution to botanical research has been in the taxonomic study of the African Pteridophyta. The *Flora Zambesiaca* volume (1970) covered the species occurring in Zambia, Mozambique, Zimbabwe, Malawi and Botswana with an update of the revision for the *Flora de Moçambique* assisted by Adelia Diniz in 1979. The Angolan species were covered in the *Conspectus Florae Angolensis* (1977). The Pteridophyta of southern Zaire were covered in his treatment (1974) of the species collected by several Belgian research teams. He also published reviews of seven families of ferns for the whole of Tropical Africa in 1970. With the completion of the pteridophyte volume for the *Flora of southern Africa* due for publication in 1986, he had completed the coverage for southern Africa and most of south central Africa. The co-author of this work is a post-graduate assistant, Mrs Nicola Anthony. Unfortunately he did not have the study leave available to write up the ferns of tropical east Africa. Consequently, after discussion with colleagues in London, he had been persuaded to attempt a conspectus of the Pteridophyta of continental Africa as a basis for future international research.

He was also engaged on scanning electron microscopic studies of fern spores which had revealed the existence of local segregates in some fern species complexes, and on sporangium/spore counts which had provided clues to the distribution of apogamous taxa. Both lines of enquiry he was hoping to pursue on a broader local and continental scale.

## 2 Taxonomy of southern African Orchidaceae

The Bolus Herbarium has been the centre for southern African orchid taxonomy since its foundation by Harry Bolus and the publication of his three volumes covering most of the species then known. Publication of Schelpe's (1966) *'Introduction to the South African Orchids'* served not only to commemorate the centenary of the Bolus Herbarium, but also to promote an interest in this group.

Much of Ted Schelpe's input into the taxonomy of the South African Orchidaceae has been in the form of supervision of the projects and theses of his students. Research by staff and post-graduate students (Hall, Linder, Immelman, Anthony) contributed substantially to *Wild orchids of southern Africa* (1982) edited by Joyce Stewart. The students mentioned have also supplied the manuscripts completed to date for the orchid volume of the *Flora of southern Africa* which is being compiled at present.

Schelpe's personal research was on *Habenaria* and *Bonatea*, started in conjunction with Dr J. Renz of Switzerland, and on overviews and phylogeography of the family. He had also begun to study pollination mechanisms (such as self-pollination) in several genera and was planning to investigate the winter rainfall species of *Disperis* with a post-graduate student. In the interest of the conservation of rare and endangered species in the south-western Cape he had also begun to study the orchids in the Blue Downs area near Kuils River where some 15 species occur in an area zoned for high density housing. Here he was particularly interested in the fire ecology (food reserve metabolism) causing the remarkable flush of flowering following the fire of 1974. The authorities plan to burn the vegetation in this area in February 1986 in the interest of botanical research.

## 3 Taxonomy of cultivated species of Dendrobium

Ted Schelpe's main research interests in Orchidaceae lay in the tropical Asian genera *Paphiopedilum* and *Dendrobium*. Over the past 15 years he had built up and maintained a private living collection of over 100 Asiatic species of *Dendrobium*.

In the light of his constant observation of the species in his glasshouses, he was devising a more workable and more natural classification than the one by Kraenzlin currently in use. He was using vegetative characters (e.g. leaf sheath anatomy and surfaces) together with features of the inflorescence development, neither of which had been used before. He had also observed self-sterility in a number of species rare in cultivation and it had been proposed to pursue this line of research with a view to their possible cultivation. Unfortunately this revision was not completed and is not in a publishable form. All living plants and his notes are being donated to the Royal Botanic Gardens, Kew, by his wife.

## 4 Taxonomy and systematics of winter rainfall Scrophulariaceae

As the volume of the *Flora of southern Africa* on the Pteridophyta had been completed and as work on the volume on Orchidaceae is well advanced, Ted

redirected his field work to a study of the two genera, *Nemesia* and *Diascia*, within the winter rainfall region. Preliminary SEM studies of seed surfaces had indicated that they can provide useful taxonomic characters, at least in *Nemesia*. Discovery of two different seed types in populations of *N. anisocarpa* was to receive special attention. As many of the species concerned are semi-desert plants of Namaqualand and Bushmanland, the progress of this project was dependant on adequate rainfall. It is ironic that the best rainfall in living memory fell in much of the area just after he died.

## 5 Bryophytes

Ted maintained an interest in Bryophytes from his Oxford days. He was always interested in collecting species, particularly those ephemeral ones from the drier areas such as Namaqualand. He often found time to curate the collections in the Bolus Herbarium. This side of his interests resulted in several papers and culminated in the checklist of southern African species published jointly with Dr R. E. Magill (1979).

## 6 Gasteria

His first publication on Angiospermae (1958) had dealt with the succulent genus *Gasteria* of the Liliaceae. He retained an interest in the group over the years and had hoped to co-operate with Ernst van Jaarsveld, the horticulturist in charge of the succulent collections at Kirstenbosch, on a revision of the genus.

### COLLECTING EXPEDITIONS AND COLLECTIONS

#### 1942–46 Drakensberg

His study of the ecology of the Cathedral Peak area began in July 1942 and continued during subsequent visits in February and July 1943, and in July, September and December 1944. In his thesis he gives a checklist of the flora and notes that all the numbers listed are his own collecting numbers. The lowest number is 52 and the highest 1005. The 14 Fungi and 57 Pteridophyta were given separate numbers prefixed by F and P. A number of species are listed without collecting numbers. A total of 548 species was collected.

The majority of the specimens are housed in the Natal University Herbarium (NU), including some spirit material. The lichen specimens are kept in the Bolus Herbarium with a duplicate set in NU. Duplicates of the angiosperm collections were sent to the National Herbarium, Pretoria (PRE) and the Natal Herbarium, Durban (NH).

\* Collecting Nos 52–1005 + 71 others. Total: ? 1025 specimens.

1947–50 For this period no collecting registers or records of collecting excursions have been located. He must have collected some specimens while stationed at the Royal Natal National Park in 1947. The specimens that he collected for his study of bryophytes in the vicinity of Oxford must be housed at the Fielding Herbarium (OXF) or at the British Museum (BM).

1949 *Mt Kenya* July–October 1949

He organized and led the Oxford University Mount Kenya Expedition which went under the auspices of the University's Exploration Society. The team consisted of four persons, Ted Schelpe and Frank White as the botanists, John Riley, medical student, amateur entomologist and son of the Keeper of Entomology at the British Museum as the zoologist and A. C. Allison (now a professor) as anthropologist. They covered all the vegetational zones of the mountain, getting up to 10 000 ft at the Kathita Ford on the Kathita River and 10 500 ft in the Sagana Valley, according to his collecting register, but 15 000 ft from his observations in the paper on the pteridophyte ecology.

All specimens collected are housed in the British Museum (BM). Ted collected mainly orchids and cryptogams while Frank White concentrated on the montane rain forests of the SE slopes.

Collecting Nos 2373–2922. Total: 550 specimens.

1951 *Drakensberg* 4 November 1952 – 6 January 1952

During the Oxford University winter vacation he returned to Durban to see his parents and while there made several trips to the Drakensberg to visit his old hunting grounds.

Collecting Nos 2923–3157. Total: 235 specimens.

1952 *Himalayas* 18 June–23 August 1952

After completing his work in the Fielding Herbarium he joined a climbing party to the Kangra Himalayas. The other members were Ken Snelson of the Sudan Civil Service, who had made the first ascent of Mpongwane in the Natal Drakensberg while on leave from the Royal Navy at the end of World War II, and Jan Graaff who was then lecturing at Cambridge.

He arranged a small grant from the British Museum and sailed to India with a formidable number of large collecting boxes, iron-clad and virtually weatherproof with BM engraved all over them. He arrived with Snelson in Bombay on 18 May 1952 and set off on the Frontier Train to Delhi with 20–30 maunds of kit (1 maund =  $\pm 30$  kg). From Delhi they caught the Kashmir Mail and then a bus to Manali. Here they joined up with Jan and five Sherpas, 45 porters and 17 mules. His BM boxes were loaded onto mules; one on either side made a full load for a mule.

Then began the long hike up the Beas River Valley to set up the base camp. *En route* Ted collected while the others reconnoitred routes over the Parbati. Base camp was finally set up at 12 800 ft in the Dibibokri Nal, upper Kulu Valley. Ted Schelpe's main interest in collecting was ferns and orchids, but he also studied the mosses and lichens and collected all other plants, from the commonest ranunculus and omnipresent primulas to the rare blue meconopsis. Plants were not his only concern, animals of all forms were assiduously collected, prepared and put into the boxes: lizards and beetles, insects attracted to the candles at night, butterflies, and snails, boiled and cleaned. In his diaries he noted that chasing but-

terflies at this altitude was an energetic occupation; also that when he returned to camp one evening he found the remaining Sherpas had taken up catching butterflies for him. Carpenter bees fascinated him by their frequent visits to the populations of fritillaries.

Most of his collecting was done around the base camp with short sorties together with a Sherpa to places farther afield and at higher altitudes, one such being to the Dibibokri Glacier at 14 000 ft where he noted insects in the snow. He accompanied the others on one major climb, the first ascent of a small peak of 19 200 ft above the Ratiruni Glacier and collected lichens from the summit rocks. He made a special note of the rapidity with which new species came into flower in the places that he visited several times. He also set out some transects near camp in a lichen survey, mainly of umbilicarias.

Ted was absolutely tireless as a collector even when the weather was bad and always immensely cheerful about his 'chores'. Much of the sojourn in the Kangra covered the very beginning of the monsoon period. Wet rainy squalls were therefore frequent, no doubt making pressing and drying of specimens extremely difficult.

As Jan Graaff recalls 'Ted really made base camp into a home for us and his welcome after we had been away for a few days on a climbing trip was always something we looked forward to. To reward us for helping him change drying papers, Ted used to give continuous, free and fascinating 'nature study lessons' in base camp. We loved them, but were unable to remember a tenth of what he told us'.

Ted left the party towards the end of July and went to the eastern Himalayas in Assam in search of forest plants. He gave the others, who went into Tibet, a couple of BM boxes just in case they saw something. 'It was then' said Jan Graaff 'that we really appreciated how hard he had been working and that collecting for a BM box was no light task under expedition conditions'.

From 6–7 August Ted was in Delhi and visited the renowned embryologist Prof. Maheshwari. He gave a lecture there on the ecology of ferns, bryophytes and lichens. He then went by plane to Kalinjorg and by car to Dajeerling where he stayed from 14–23 August collecting in the area. He was a frequent visitor to the Lloyd Botanic Gardens there, where the curator was a Mr J. Hulbert, and to the orchid nursery of Ghose & Co. He left India by boat from Calcutta where he claimed he played his last game of rugby!

Collections: Angiospermae, 190; Pteridophyta, 173; Musci, 62; Hepaticae, 4; Lichenes, 72.

Collecting Nos 3158–? 3618 (some 20 collections with a & b numbering). Total: 501 specimens.

1952 *Ethiopia* September 1952

At the beginning of September he disembarked at Aden to take up the open invitation he had received from the British Consul to Ethiopia, Lt Col. A. C. Curle, whom he had met on the boat trip to India.

In the course of this visit a number of different vegetation types in the provinces of Shoa and Arussi were studied, and particular attention was paid to the pteridophytes.

He visited Mulu Sayu, the crater lake at Bichoftu and Boli Gorge with the Mughher River, the Entoto Range and to the south Lake Shala, Neghelli, Sheshemana and Cofole.

Collections: Aden: marine algae, 5; Ethiopia: Angiospermae, 86; Pteridophyta, 55.

Collecting Nos ? 3619–3744. Total: 146 specimens.

1953 *Cape Peninsula* 29 March 1953

With his appointment at the University of Cape Town he began collecting in the vicinity starting from Collecting No. 3745.

1953 *Rhodesia [Zimbabwe]* 27 June–21 July 1953

He went to the Congress of the S.A. Association for the Advancement of Science (S<sub>2</sub>A<sub>3</sub>) held in Bulawayo with Dr Margaret Levyns and Mr J. E. P. Levyns. They visited the Matopos, Victoria Falls, Fort Victoria and the eastern highlands making collections *en route*.

Collecting Nos 3906–4130. Total: 124 specimens.

1954 *Mozambique* January 1954

A team of biologists, mainly zoologists under the leadership of Prof. J. H. O. Day of UCT, went to study estuarine ecology in the Marumbei estuary just north of Inhambane. Ted Schelpe accompanied them as botanical advisor. He found very little of value within his sphere of interests.

1954 *South West Africa* 7 June – 22 July 1954

To increase his knowledge of southern African ferns he undertook a collecting trip to this territory during the winter vacation, accompanied by his new wife. They travelled along a route from Goodhouse through Warmbad, Karasberg, Windhoek, the Waterberg, Etosha and back.

Collecting Nos 4756–4848. Total: 92 ferns.

1955 *Rhodesia [Zimbabwe] & Mozambique* 24 June – 16 July 1955

During the course of preliminary work on the Pteridophyta, it became clear to Ted from the few records from Gorongoza Mountain that this massif should support a varied pteridophyte flora. Consequently an expedition to the eastern districts of Zimbabwe was extended to include Gorongoza. He was accompanied by his wife and the zoologist, Dr Richard Liversidge.

The mountain was approached from Vila Paiva d'Andrade. First camp was established on the southern slopes at Morambodzi Waterfall at 2 700 ft in riverine forest. A high camp was pitched close to Gogogo Peak at 5 800 ft, the highest point of the mountain. He collected 70 ferns there.

The other areas visited were Pungwe Gorge, Odzani River, Jaegersberg, Chipungu Falls, Stapleford, Penhalonga and Vumba.

Collections: Pteridophyta, 376; Bryophyta, 74; Lichenes, 24; Angiospermae, 7; by Mrs Schelpe, 271.

Collecting Nos 5301–5775b. Total: ? 475 specimens.

1962 *N Mozambique* 16 June – 29 July 1962

To establish the identity of previously collected material and extend the survey of the distribution of

pteridophytes in northern Mozambique for the Flora Zambesiaca an expedition was undertaken with Mr L. C. (Larry) Leach. They entered Mozambique through Mandimba from Malawi and followed the road to Nampula, collecting intensively on Ribaué Mountain and investigating large and small granite domes along the route. On the return journey the party turned south through Lioma to collect on Namuli Mountain (Serra de Gurué). They made 24 new records for Ribaué, 33 for Namuli and increased the number of ferns recorded for the area from 55 to 80 including 2 new species.

Collecting Nos 6700–7095. Total: 395 specimens.

1969 *New Guinea* 20 Sept. & 25 Oct. 1969

Collections were made on the pre- and post-congress tours held in conjunction with the 6th World Orchid Conference, Sydney. No records of any collections could be found in his registers.

1978 *NW Thailand* 24–27 Jan. 1978

After the 9th World Orchid Conference he joined a group of orchidologists including Dr Phillip Cribb of Kew on a collecting expedition in the north-west provinces of Thailand. No records of any collections could be found in his registers.

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#### PLANTS NAMED AFTER SCHELPE

- Lichenes: *Parmelia schelpei* Hale
- Musci: *Leucoloma schelpei* P. Varde  
*Fissidens schelpei* P. Varde
- Pteridophyta: *Marsilea schelpeana* Launert  
*Osmunda schelpei* Bobrov
- Angiospermae: *Aloe schelpei* Reynolds

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#### UITREKSEL

Prof. E.A.C.L.E. Schelpe is op 27 Julie 1924 in Durban gebore en op 12 Oktober 1985 in Kaapstad oorlede. Hy het aan die Universiteit van Natal en in Oxford, Engeland studeer. Hy het 'n M.Sc. (S. Afr.) verwerf vir 'n tesis oor die ekologie van die Natalse Drakensberg en 'n D.Phil. (Oxon.) vir 'n tesis oor die ekologie van briofiete. Hy was vir 'n kort tydperk Kurator van die Fielding-herbarium, Oxford. In 1953 is hy as Lektor in Plantkunde aan die Universiteit van Kaapstad aangestel, totdat hy in 1973 'n volle professoraat (ad hominem) en die titel van Direkteur van die Bolus-herbarium ontvang het. Hier het hy 'n skool in taksonomie tot stand gebring en as promotor vir 22 tesisse opgetree. Sy belangrikste navorsingsvelde was die taksonomie en fitogeografie van Pteridophyta (veral groepe in Afrika) en van Orchidaceae. Hy het 112 publikasies tot sy krediet en het meer as 7 000 nommers in verskeie streke van Afrika, in Europa en die Himalaja versamel. Hy was 'n ywerige tuinier en was aktief in verskeie verenigings wat tuinbou, orgideëkunde en natuurbewaring bevorder het. Hy was lid van verskeie wetenskaplike komitees en is herhaaldelik vir sy werk vereer. Drie kinders is uit sy huwelik met Sybilla Gray, ook 'n plantkundige, gebore.