

THE JOURNAL OF THE KEW GUILD

Founded in 1893

The Association of members of the Kew staff past and present

Events of 1990

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**Royal Botanic Gardens
Kew**

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ROYAL BOTANIC GARDENS, KEW

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EDITORIAL

This time last year the weather at Kew was my main topic. In 1990 I am sure that the weather was at the foreground in the thoughts of all those connected with Horticulture. Severe gales in January, severe late spring frosts, the driest years for as long as most can remember with days on end of hot rainless weather.

But by the year's end all was looking pretty normal again — a few losses, a lot of gains and improvements and planning, and a lot of appreciation and goodwill. And all this can be said about the Kew Guild! Think about it.

But what have *you* done for the Guild this year? Did you give us an hour of your time to check through our list of members and let us know of any errors, omissions or the name and address of anyone who might wish to join? Did you 'phone up an old colleague and suggest they might join? Did you attend the Dinner, or the A.G.M., or write in to the Secretary or Editor with a bit of news about yourself, your career and family? And with a photograph for the archives — the Journal will carry your obituary one day! Have you checked your standing order (£10 now) to be certain you will receive your Journal next year? Will you advertise with us next year? Are you a name in our Journal this time? Work on it.

And keep in touch.

Richard C. Ward
Hon. Editor

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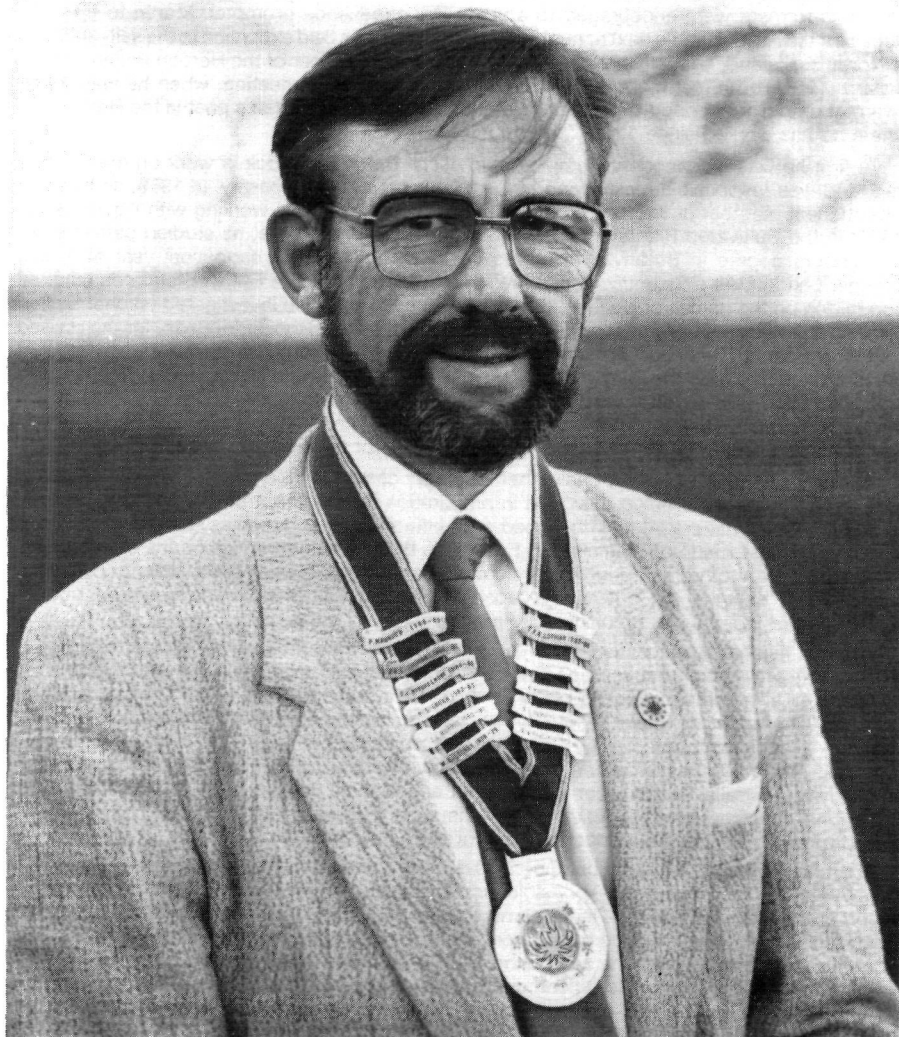
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Telephone number:

MARTIN J. S. SANDS, B.Sc., C.Biol., F.I.Biol., F.L.S., F.R.G.S.

President 1990/91



Martin Sands was born in Sheffield in 1938 and frequent periods spent in an Anderson shelter during war-time bombing are among his earliest recollections. When he was 11, the family moved to Foolow in the Derbyshire Peak District. Coincidentally, Foolow was also the home-village of the Botanist and Tropical Crops Specialist, John Purseglove, many of whose African and Malaysian collections are represented in the Kew Herbarium. Like John Purseglove before him, Martin was a pupil at Lady Manners Grammar School in Bakewell where, among other qualifications, he gain an unusual 'O'-level certificate in Agricultural Biology as well as

Advanced Level Botany and Geography, subjects which together have remained at the heart of his career.

In September, 1956 the British Association for the Advancement of Science met in Sheffield and sixth-formers were encouraged to attend. This experience prompted Martin to travel to Dublin for the Association's next annual meeting and, during a field excursion to the salt-marshes of North Bull Island, he met Charles Hubbard (1965), then Keeper of the Herbarium, and Frank Ballard (1961), both members of the Guild. It was this chance meeting, when he was made aware of employment opportunities at Kew, that led him to be offered a post in the Herbarium, where he has worked since 1957.

At first he was independently employed to assist Ralph Blakelock in work on the Flora of Iraq, and was responsible for drawing all the text figures in the glossary. In 1959, he became a permanent member of the Kew staff and by the early 1960s was working with Robert Sealy (1967) in the Cultivated Plants Section of the Herbarium. Meanwhile, he studied part-time for an Honours degree in Botany, which was finally completed in a sabbatical year at King's College, London. As a Scientific Officer he served, for a time, on a British Standards Institute Committee on the names of Cultivated Trees and Shrubs and also investigated taxonomic and nomenclatural problems in several genera, including *Acer* and *Rhododendron*, for the revised edition of Bean's '*Trees and Shrubs*'. Dealing with genera of horticultural importance brought Martin into contact with the living plant collections and a special and lasting interest in Begonias was developed with regular visits to the old Melon Yard glasshouses. Stan Rawlings (1972) was then Assistant Curator of the Tropical Section with John Simmons (now Curator) Foreman Gardener, and Walter Frost (1977) directly responsible for the *Begonia* collection.

Working closely with Robert Sealy, then Secretary of the Guild, and at a time when the new Armorial Bearings were being designed in preparation for the Grant of Arms, Martin became involved in Guild matters. At first he helped in an informal way and then as Assistant Secretary, a post which was made official in 1967. Ever since then he has remained on the committee in one capacity or another and, for 14 years until December 1989, was responsible for preparing the 'News of Kewites at Home and Abroad' in the Journal. In doing so he developed an extensive card index as a cumulative archive.

Tropical field experience for Martin began in 1969 when he was seconded to a British Museum (Natural History)/Newcastle-upon-Tyne University joint expedition. He was then abroad for nearly eight months, collecting plants in Java, Sulawesi and Papua New Guinea. Later, in 1975, he was again in Papua New Guinea, leading an expedition to New Ireland and the Admiralty Islands, accompanied by Graham Pattison (1981), then a Garden Supervisor at Kew, and Jeffrey Wood of the Herbarium Orchid Section. Afterwards, following a long vacation with his family in Australia, Martin went on to collect and make a special study of Begonias in the Philippines. For the same purpose, in 1984, he went to Sarawak and Sabah, both of which proved to be rich in *Begonia* species, many of them new to science.

For many years at Kew, annual Open Days were a major event and in three consecutive years in the 1970s, Martin was responsible for planning and organising the sequence of exhibits staged in the Herbarium. Later, in 1979, he was instrumental in making the changeover from fumigation to deep-freezing of herbarium specimens, a method of decontamination subsequently widely adopted in many herbaria around the world. Appointed Herbarium Co-ordinator in 1982, he became a Principal Scientific Officer four years later, and has responsibility for the Herbarium General Service Section and oversight of the curatorial, accommodation and maintenance needs of the Herbarium. In recent years, as Co-ordinator, he served as staff representative during the planning and construction of a large, new single-storey building filling the Herbarium quadrangle. Completed in 1988, it has the capacity to hold up to 1.25 million specimens and its flat roof has been laid out in the style of a stone Zen garden.

In 1987, Martin directed the first Diploma Course in Herbarium Techniques to be run at Kew, and students from many countries attended the three courses held between 1987 and 1990. After the first year, however, management of the courses passed to colleagues, because, associated with his herbarium regional responsibility for Australia, he was participating in a major

field project in the Kimberley Region of northern Western Australia. This Project not only marked the 200th anniversary of the Linnean Society of London but also Australia's own bicentenary and was organised jointly with the Royal Geographical Society. Representing the Linnean Society as Deputy Leader, he took part in three reconnaissance visits between 1985 and 1987 and in 1988, heading a life-sciences team of 24, was in the Kimberley throughout the four month field phase of the Project.

In his taxonomic research, a revision of **Balanites** is nearing completion. This economically important genus occurs in much of Africa as well as in India and Burma, **B. aegyptiaca** being widespread in Africa and of particular interest because of the molluscicidal properties of the saponins in the fruit, useful in combating snail-borne diseases. Continuing his study of *Begonias*, especially those from South-east Asia, six new species from Sabah (based on his own 1984 collections) were published in May, 1990 in the *Kew Magazine* (formerly *Curtis's Botanical Magazine*). Detailed work on the Bornean species is continuing and he hopes to gather more specimens during further field-work in the region.

Martin married Gillian Collins in 1966 and they live in Buckinghamshire with a son, Robert (currently studying in Edinburgh) and daughter, Heather. He has been a Churchwarden for nearly ten years and in his leisure time enjoys walking, swimming, photography and lecturing on subjects such as the Mediterranean region, plant hunting and garden history. He serves as a cruise lecturer from time to time and frequently leads wild-flower holidays in Greece. The second edition of his handbook about Paxos — '*Paxos: Walking and Wild Flowers*' is to be published in 1991.

He is a Fellow of both the Royal Geographical Society and the Linnean Society, of which he is currently a Council Member, and is now Secretary and Treasurer of the Rain Forest Club. Recently in December 1990, he was elected a Fellow of the Institute of Biology.

The Centenary of the Guild in 1993 draws ever closer and since 1986, Martin has been Chairman of the planning sub-committee, a role in which he hopes to continue after he has completed his term of office as President.

K. R. JONES

Vice-President 1989-1991

By Winifred Worth



Kenneth Roy Jones was born in Beckenham, Kent on the 8th February 1935. With his grandfather the Head Gardener at Spurgeon's House, Goudhurst, and Suffolk farmers on his mother's side it was not surprising that he decided on a horticultural career, commencing at the age of 15 with an apprenticeship in Beckenham Parks Department where C. R Stock (1927) was in charge.

In 1955, after completing his National Service, Roy spent two years at Cambridge University Botanic Garden where J. S. L. Gilmour (1946) was Director. There he took their Certificate of Horticulture before becoming a student at Kew in 1957. At Kew he particularly remembers Fred Larkbey's friendly welcome when he started in the Decorative Department and the encouragement he received from Jack Souster while working in the Temperate House.

On leaving Kew in 1959, Roy was appointed Botanical Assistant at the City of Liverpool Botanic Gardens, Calderstones Park where the Director was P. W. H. Conn (1923). Here he had the job of creating a botanic collection from a nucleus of plants which remained after the Nazi bombing. Liverpool had a number of Kingdom-Ward's introductions bearing only his collection number and needing positive identification; this Roy did through his contacts with Kew. As the collection of plants grew so the area of glasshouses was extended enabling him to make Liverpool the home of the largest municipal collection of orchids. In February 1960 Roy was suddenly made responsible for Liverpool's Chelsea Flower Show exhibit that May. This was awarded a Gold Medal as was its exhibit in 1962.

Roy's particular interest in the educational side of horticultural work emerged at Liverpool where he was responsible for creating a 'Natural Flora Garden', planted according to the classification of Bentham and Hooker, which was used by local Grammar Schools for teaching purposes.

In 1965 Roy was appointed Horticultural Officer for the City of Sheffield Parks Department with responsibilities ranging from controlling the 57 parks staff to teaching City and Guilds Stage I to 36 apprentices. As a committee member of the Yorkshire Council of Further Education he was involved in writing their own syllabuses at Stage I equivalent.

In 1969 Roy took up the post of Training Officer to the Gunnersbury Park Training Scheme for Parks Staff in west London covering four local authorities, a position he still holds. As well as developing this work he was one of the authors of the Instruction Manuals published by the Local Government Training Board. Through membership of the West London Training Consortium, The Institute of Leisure and Amenity Management, the Norwood Hall Institute of Horticulture, of which he is a Governor, and the Institute of Horticulture, of which he is a founder member, his expertise and influence has been widespread. No wonder, then, that in 1987 the Institute of Horticulture awarded him a Fellowship "in recognition of a high standard of distinction achieved in the profession".

On top of this heavy work load Roy still found time to teach the R.H.S. General Syllabus for 14 years at Feltham evening classes. He belongs to the Surrey Guild of Horticultural Lecturers and Judges, and he judges the Kew students' allotments annually — lucky students!

Roy is a highly respected Elder of his local Christian Fellowship and has done a great deal for charity, especially The National Deaf Children's Society. He lists his hobbies as trout fishing, photography and gardening, though how he finds time for them is anyone's guess. He willingly finds time, however, to support the Guild. He has been a Committee member since 1986 and we are delighted that we still have the benefit of his wisdom during his vice-presidential term of office.

As from 31st March 1991 Roy has left the West London Training Consortium and now works from home as a Training Consultant — *Ed.*

ANNUAL GENERAL MEETING OF THE KEW GUILD

By **Mark Sparrow**, Hon. Assistant Secretary

On Saturday 8th September 1990 37 members assembled in the Jodrell Lecture theatre for the A.G.M. The President Mr. Eric Curtis was in the chair and was accompanied on the platform by the Secretary, Mr. M. Maunder.

Mr. Curtis welcomed everyone to the meeting and said what a great honour it had been serving as President. He thanked all the members of the Committee for their support during the year.

The Secretary, Mr. Maunder, informed members of deaths which had occurred since the last A.G.M.; Mr. R. Binnington (1924), and Mr. T. Coventry (1924). A period of silence was observed in their memory.

Apologies for absence were received from: C. J. Mitchelmore, H. G. Butcher, Dr. N. Robson, C. E. Cherry, Dr. M. Stant, Miss S. Fitzgerald, H. Taylor, B. Phillips, A. Paterson, W. T. Preston,

Miss S. Piebenga, M. Arnold-Gilliat, J. Simmons, I. Beyer, R. Mowforth, J. B. Mowforth, B. Hughes, M. Boyes.

The following members were in attendance: E. Curtis, Ms R. Bower, M. Sparrow, M. Maunder, M. Sands, G. Preston, S. Rawlings, G. Burgess, P. Green, N. Hepper, P. Gooding, G. Turley, P. Turley, Mrs. W. Worth, Mrs. B. Breach, J. Breach, K. Jones, W. Gilmour, Mrs. S. Gilmour, B. Pitcher, C. Hindmarch, R. Sealy, Ms S. Ross-Craig, G. Pattison, Ms J. Cowley, A. Cook, Ms G. Lofthouse, Ms M. Axton, Prof. G. Prance, Ms L. Bustard, R. Ward, S. Henchie, H. Flower, K. Pearson, D. MacGuffog.

The Minutes of the 1989 A.G.M. were accepted as a true record. There were three matters arising from the minutes. The first concerned the suggestion that all living Kewites names be included in the Journal. The Committee had given careful consideration to this matter but had decided that it was impractical as many people lost contact with Kew after they left. The second matter referred to the appeal to life-members for donations. This had been implemented and had received a very positive response. At this point Mr. P. Maunder suggested that in future years life-members be asked to make an annual voluntary contribution towards the cost of their Journal. This motion was seconded by Mr. R. Ward and accepted unanimously by the meeting. A note to this effect would be printed in the Journal each year. The final matter concerned the Wakehurst booklet. The Kew Bookshop were requesting their normal commission of 33% of the retail price for selling the publication, making the profit margin for the Guild very small. The Chairman suggested that the Committee give this matter urgent consideration at their next meeting.

The Secretary, Mr. Maunder, thanked Mrs. Worth for her assistance since taking over the post. He also thanked Mr. M. Sparrow, the Assistant Secretary, for his help with minute taking and other secretarial duties during the year. He reported that news had been received from Mr. J. Jenkin (1938-40) who had in 1990 celebrated 50 years continuous employment on the Blackpool Estate in Devon together with his Golden Wedding Anniversary.

The Membership Secretary, Miss L. Bustard reported that there were currently 565 members of which 44 were staff and 35 students. She thanked life-members for their extremely generous donations following the appeal made during the year. There were currently 100 life-members and many had kindly made a contribution. She was pleased to report Mr. T. Sargeant's 100th Birthday in May 1990, the Guild had sent a card and a beautiful floral arrangement to him.

The Treasurer's Report was given by Miss R. Bower who began by saying that the financial position of the Guild was now very healthy following the two legacies in 1989 and the increase in subscription rates. All investments, including the long term account, were yielding good returns and the future looked very good. Mr. R. Ward expressed concern that Journals were being sent to members who had not paid the full subscription rate. Miss Bustard assured him that this would not happen. Mrs. W. Worth reminded the Committee that subscriptions were not officially due until April 1st and warned against removal of names from the membership list in advance of this date.

The Editor, Mr. R. Ward, said he had received a quote for next year's Journal which amounted to an increase of £87. He appealed for a volunteer to take on the task of Advertising Manager for the Journal which had proved a very useful source of income in the past.

Mr. D. Breach, the Events Officer, reported that 120 people had attended the Annual Dinner at the Imperial College. Those attending spanned a wide cross-section of horticultural backgrounds and ages. It was generally agreed that the food was an improvement on previous years. Mr. Breach apologised for the increased cost of the meal but suggested it still represented excellent value for money. He thanked all the people who helped out with the arrangements.

Mr. S. Henchie displayed the newly designed Guild ties which were on sale for £6.00.

Mr. P. Maunder reporting on the Award Scheme said that 11 applications had been received in 1989. Seven were selected for awards, sharing £1,300 between them. In addition £300.00 was given to the recipient of the Tom Arnold Bursary.

The Centenary Sub-Committee Report was given by Mr. M. Sands who stated that since the Committee's formation in 1986 16 meetings had been held. Mr. Sands outlined some of the proposals for events to be held in 1993, the details of which were still to be finalised. He was pleased to announce that Princess Alexandra had agreed to act as patron and that Professor G. Prance had accepted the position of President in the Centenary year. Mr. Sands said it was hoped to set up a Trust Fund with some of the money received from sponsors to help staff and students with accommodation at Kew. It might be possible to purchase property in the area which could be let to them. Mrs. W. Worth expressed concern that not all the money should be targeted at helping young Kewites and that older members should be considered as well.

Student Prize-giving. Mr. M. Maunder reported that the student Prize-giving Day had been a great success. The Duke of Gloucester had awarded the Diplomas and Prizes and had also presented Kew Medals to Mr. J. Keesing and Mr. E. S. Luxford. After the ceremony the Duke officially opened the new School of Horticulture Building.

Mr. E. Curtis thanked the retiring members of the Committee, Mr. C. Hindmarch, Mr. M. Sands, Rev. H. Flower and Mr. T. C. Müller for their hard work and support during their four years in office.

Election of officers. All officers nominated by the Committee were unanimously accepted en bloc and their names appear at the beginning of the Journal.

Under any other business members were informed that they were eligible to join the Friends of Kew at the same rate as staff. The cost would be £15.00, while overseas members would be charged £20.00. This sum covered family membership and included the spouse and any children up to the age of 18. Michael Godfrey, the Manager of the Friends of Kew, had kindly agreed to mail a copy of the first Journal to all members free of charge.

There then followed the *inauguration of the new President Mr. Martin Sands*. He thanked Mr. Eric Curtis, the outgoing President, and also Mr. and Mrs. Sealy, who were in the audience, for introducing him to the Guild.

The date of the next A.G.M. was set for the 7th September, the Saturday following the student prize-giving.

The meeting closed at 4.00 p.m. and members adjourned to the Common Room for tea. Following tea a short talk was given by Mr. T. Upson about his study trip to the Limbe Botanic Garden in the Cameroons.

PRESIDENT'S REPORT 1989-1990 TO A.G.M.

By Eric Curtis

The Annual General Meeting gives us once again an opportunity to meet together as fellow Kewites. Our office bearers give reports of the year's activities; it is for me to make more general observations.

Living some distance from Kew, I had not retained close links with all the Guild's activities, but in accepting the honour of being your President, I have been able to see much of the work which goes on steadily behind the scenes. Our committee does splendid work. They are a group with a strongly held commitment to the Guild and individuals of firmly held views, moderately expressed! I felt honoured this year to serve with them and chair the meetings.

It was a special pleasure for me to follow Peter Maunder as President; contemporaries at Kew, I always admired him — and his charming humour! His work for the Award Scheme deserves special note. The involvement of the Guild with present day students is of continuing value to both. Peter's involvement with Kew is enriched in a special way in that we now have his son, Mike, as our very capable Secretary.

I wish to thank K. R. Jones who on occasion stood in for me when I was unable to attend. Only yesterday he represented the Guild while the Duke of Gloucester was at Kew. I should have been able to attend but, by strange co-incidence, his mother, Princess Alice, came to visit our Botanic Gardens at Glasgow, where, a vigorous 89, she toured the gardens and planted a tree.

As our capable Treasurer for many years, Ted Storey's sudden severe illness left a worrying gap in our team. This at a time when continuing rising costs forced a revision of our subscription rates. How lucky we were then, to be able to turn to the professional expertise of Rebecca Bower whose work at this critical time has been invaluable. That the money has come in is also due to the special efforts of our Membership Secretary, Louise Bustard. It is also good to record the generous response of our appeal to Life Members.

Derek Breach and his wife once again did a magnificent job in setting the scene for a successful Annual Dinner, with our inimitable Toastmaster, Richard Ward, whose work as Editor continues to produce, on time, the vital link with all our members — the *Kew Guild Journal*. I had that duty many years ago. One day our Curator "Big Bill" Campbell presented me with the memoirs of William Dallimore to edit for the Journal. They were packed with interesting reminiscences of Kew at the turn of the century. He was the pioneer of tree and shrub pruning and was later *Keeper of the Museums*. Of special interest to us was his early idea of an association of past and present student gardeners which developed into the Kew Guild.

Today we are within a few years of the Guild's Centenary — a splendid opportunity for celebration and an achievement to mark. These are vital "run-up" years and Martin Sands, our new President, and the Centenary Sub-committee have been laying the plans for the occasion.

I thank everyone for their support during the year.

REPORT OF THE 1990 ANNUAL DINNER

By D. J. Breach, Events Officer

The Wednesday of 'Chelsea Week' hailed another Kew Guild Dinner which was again held at the Imperial College, South Kensington.

On this, perhaps the most important date in the Guild's year, 120 Kewites and their guests assembled for a pleasant and entertaining evening. The proceedings got under way with a warm welcome extended by the President and his Lady to all those present at a friendly reception prior to dining.

The menu had a touch of 'à la Française' about it (supreme of chicken en crouete, French beans etc.) which was not, as one might imagine, another small, but calculated step towards 1992, but rather more of a discreetly hurried change of plan from roast beef brought about by a sudden upsurge of 'mad cow disease'. However, such a change in the evening's fare seemed to be well accepted.

The diners were then treated to some interesting after dinner speaking by Dr. Barry Thomas, Keeper of Botany at the National Museum of Wales, in which I seem to recall just a hint of incitement to revolution — in aid of conservation.

Such serious 'thought provoking stuff' was followed by a very successful attempt on the part of Professor Gren. Lucas to have even the most serious minded 'in stitches'. Was this an insight into a well developed and refined second career prospect? How, you may ask, could such an effusive and infectious sense of humour exist in a herbarium? What was absolutely certain, however, was the appreciation shown by his audience.

Not to be daunted by all this Jane Runicles gave a very noteworthy account of herself, (as the student representative), in proposing the toast to 'Absent Friends'.

It was a pleasure to have the overseas members represented by John Beswick from Adelaide and John Winter from Cape Town. Similarly it was a pleasure to welcome as an overseas guest, Mrs. Joyce Waters, from New Zealand, a personal guest of Dr. Margaret Stant.

Kew students ran a raffle as a result of which they donated £59.00 towards the cost of the Dinner for which the Guild expressed its gratitude.

On behalf of the Guild I would like to thank those who so regularly and so willingly do their bit towards the dinner; not least of course, our Toastmaster and Master of Ceremonies, Richard Ward, who jolly well makes sure that we all get it right.

Lastly a reminder that it is *your* Guild Dinner — if you are not a regular attender please become one as your personal contribution to making it 'bigger and better'. The proposed date for the 1992 Dinner is Wednesday 20th May 1992.



Dr. Barry Thomas (left) and our President, with their wives, at the Annual Dinner. Photo kindly provided by ex-Kewite Haydn Bell.

KEW GUILD AWARD SCHEME REPORT

By Peter Maunder

The year 1990 for the Committee was a relatively quiet one, when no major fund raising was attempted but where the management of the Scheme was consolidated.

Jenny Evans as Secretary continued to exercise control of the organisation, and to whom the members, namely David Field, Louise Bustard, Jane Runicles and Russell Forbes, are grateful. Rebecca Bower, the Guild Treasurer, retained a sound financial grip on the Committee's deliberations.

The Committee considered 11 applications from students and members of staff, and preference was given to those applicants who were not in receipt of assistance from other sources. The successful applicants listed below reflect once again the diversity of interest which so epitomises the Kewite.

Caroline Kernan
Jenny Evans
Graham Pattison

Tim Upson
Richard Baines
John Allin (Tom Arnold Bursary)
Terry Sunderland

MA Conservation, University of York
Australia and United State Botanic Gardens
M.C.C.P.G. (Wisley), International Horticultural Congress,
Firenze, Italy
Limbe Botanic Garden, Cameroons
Nepal and Kashmir Plant Expedition
Nursery Practice, Greece
North America Botanics and Biosphere

The evening reunion following the A.G.M. in early September, organised by the Committee, again proved a successful and rewarding venture. On behalf of the Committee, the Chairman

invited the new students of Course No. 28 to join Guild members as guests for the evening. Those attending congregated in the Jodrell building to recognise old friends over a glass of wine. The gardens tour, led and organised by Mike Sinnott, was to appraise the new developments in the Rock Garden which has given much pleasure to many over the last hundred years. The under-cover visit and the venue for the buffet supper was the recently converted museum, opened the previous day by the Duke of Gloucester.

At the new School of Horticulture building, Ian Leese, the recently appointed Supervisor of Studies, welcomed members and outlined the aims and objectives of the new course and the facilities now available in the restructured building. Members were especially grateful for this opportunity to meet Ian Leese, for the manner of his welcome, and for being the first group permitted to use this new facility.

The buffet supper again proved highly enjoyable and thanks must go not only to Committee members, but to David Field, Mr. and Mrs. Derek Breach, Mr. and Mrs. Roy Jones, Neil and Sheila Gilmour and Isabelle and Michael Maunder. All made, presented or served an excellent meal which formed the foundation of a very enjoyable evening. The success of the soirée can be judged by the profit of £150.00 being credited to the Award Scheme funds.

Earlier, following the A.G.M. tea, Tim Upson, recently returned from the Cameroons, gave an illustrated talk on his work and experiences at the Limbe Botanic Garden. Guild members were privileged to hear the first lecture in the new School of Horticulture building, and had proof of the value of the Award Scheme. The Committee wish every success to Tim Upson at the University of Reading, and to Caroline Kernan at the University of York. We would also congratulate Jenny Evans on gaining the M.Hort(R.H.S.) award at a very high level.

The report by Alison Bowles of her visit to New Zealand (1989/90) was received by the Chairman and reported to the A.G.M.

Guild members should appreciate that the Award Scheme is available to all who wish to extend their knowledge, undertake research or complete projects in the field of botany or horticulture. Members who are living outside the environs of Kew can apply at any time, although ideally applications should reach the Award Scheme Secretary prior to March in any year.

(One condition of acceptance of an Award is that the recipient should submit a report to the Chairman for publication in the *Kew Guild Journal* during the current year! Ed.)

KEW GUILD COMMITTEE MEETINGS

Members may be interested to know that the Committee deliberated the following most important items at meetings in 1990:

New Guild ties design; Coat of Arms; publicity generally; rationalisation and costs of the Journal; Award Scheme Certificates and rules; Guild Centenary; Students' Union Annual Dinner venue, costs and detail; investment of funds; subscriptions; Guild memorabilia; Journal advertising.

SUBSCRIPTIONS

Members are reminded that the annual subscription is now £10.00 and standing orders *must* be changed as necessary. Journals will not be sent to those who are not fully paid up.

GUILD MEMORABILIA

With our Guild Centenary in 1993 we are on the look-out for old Kew papers, records, photographs and general memorabilia. Please send to Ms Sylvia Fitzgerald, c/o R.B.G. Kew Library.

PRESENTATION OF KEW DIPLOMAS AND PRIZES 1990 (Course 25)

Ian Leese, Supervisor of Studies welcomed guests, and an introduction was given by the Director, Professor Ghilleen France.

His Royal Highness The Duke of Gloucester presented the prizes to students after he had reminded guests of his family connections who lived at Kew in the 18th Century when Kew was the Royal vegetable store! He made the point that as nowadays more food can be produced on a smaller area of land, and that there is a surplus of food in the world as a whole, and that with more leisure space available there is a bright future ahead for those involved with landscape management.

The Duke officially opened the new School of Horticulture Education Centre where tea was served afterwards.

THE KEW DIPLOMA

Honours

R. Baines	C. Göhler
D. Barnes	L. Perrins
J. Chesters	S. Spielberg
C. Ely	R. Styles

Credit

C. Butterworth	J. Lanyon
A. Gaynor	B. Little
C. Gibbons	J. McMillan
P. Hollett	T. Parker

PRIZES

The Ernest Thornton-Smith Travelling Scholarship	Ms C. Ely
Henry Idris Matthews Scholarship	T. Sunderland
David Dalziel Travel Scholarships	S. Cantor, Ms J. Doorne, R. Fisher, R. Forbes, M. Klemperer, P. Longdon
The British Friends of Jerusalem Botanical Garden Scholarship	B. Little
The Friends of Israel Educational Trust Scholarship	Ms C. Göhler
Hozelock-ASL Prize	Ms M. Groves
G. C. Johnson Memorial Prize	Ms S. Spielberg
Kingdon-Ward Prize	Ms S. Spielberg
Landsman's Bookshop Prize & ICI Shield	Ms C. Göhler
Sir Joseph Hooker Prize	I. Kirby
Donald Dring Memorial Prize	Ms C. Ely
The Metcalfe Cup	D. Barnes
Matilda Smith Memorial Prize	B. Little
Dummer Memorial Prize	B. Little
Proudlock Prize	R. Baines
Prize for best vegetable plot	J. Lanyon
Kew Guild Individual Study Prize	T. Parker
C. P. Raffill Prize	B. Little
Professor Keith Jones Cup	J. Anderson
George Brown Prize	J. Anderson, R. Baines
Kew Postgraduate Research Fellow Scholarship	Ms S. Spielberg
Kew Mutual Improvement Society's Prize	Ms C. Ely, R. Forbes
Lecturer's Prize	B. Little
Photographic Society Prize	D. Gardner

Plant Identification Tests Prize	R. Baines
Rotary Club of Kew Gardens Prize	B. Little
Students' Union Life Membership	Ms C. Gibbons, T. Parker, J. McMillan



H.R.H. The Duke of Gloucester, G.C.V.O., opening the School of Horticulture's new Study Centre.

TITLES OF MANAGEMENT PROJECTS (Course 25)

Richard Baines	Botanical Gardens and their future role.
David Barnes	Plant Selections and marketing for plant sales at Kew.
Charlie Butterworth	The role of botanic gardens in Latin America, with special reference to Ecuador.
John Chesters	Viticultural research and education with specific reference to English vineyards.
Camilla Ely	Kew student expeditions, with reference to fund raising, planning, publicity and organisation.
Andrew Gaynor	Botanic gardens and their future role.
Carmel Gibbons	The role of horticulture in environmental education.
Carolyn Göhler	Botanic gardens and their future role.
Peter Hollett	Biological control — breeding of Kew's own predators and the use of more species of predator.
John Lanyon	An analysis of the management of tender bulbs at Kew.
Brendan Little	An horticultural training scheme for sufferers of epilepsy.
James McMillan	Improvements to potential catering facilities at Kew.

- Tom Parker An appraisal of the introduction of organic gardening techniques at Snowhill Manor.
- Lorraine Perrins An investigation of ways of improving the educational interpretation of plant collections for school children, with reference to the Princess of Wales Conservatory.
- Sue Spielberg The restoration, current development and future development of Ham House.
- Rose Styles An investigation into increasing the use of the Bamboo Garden at Kew.

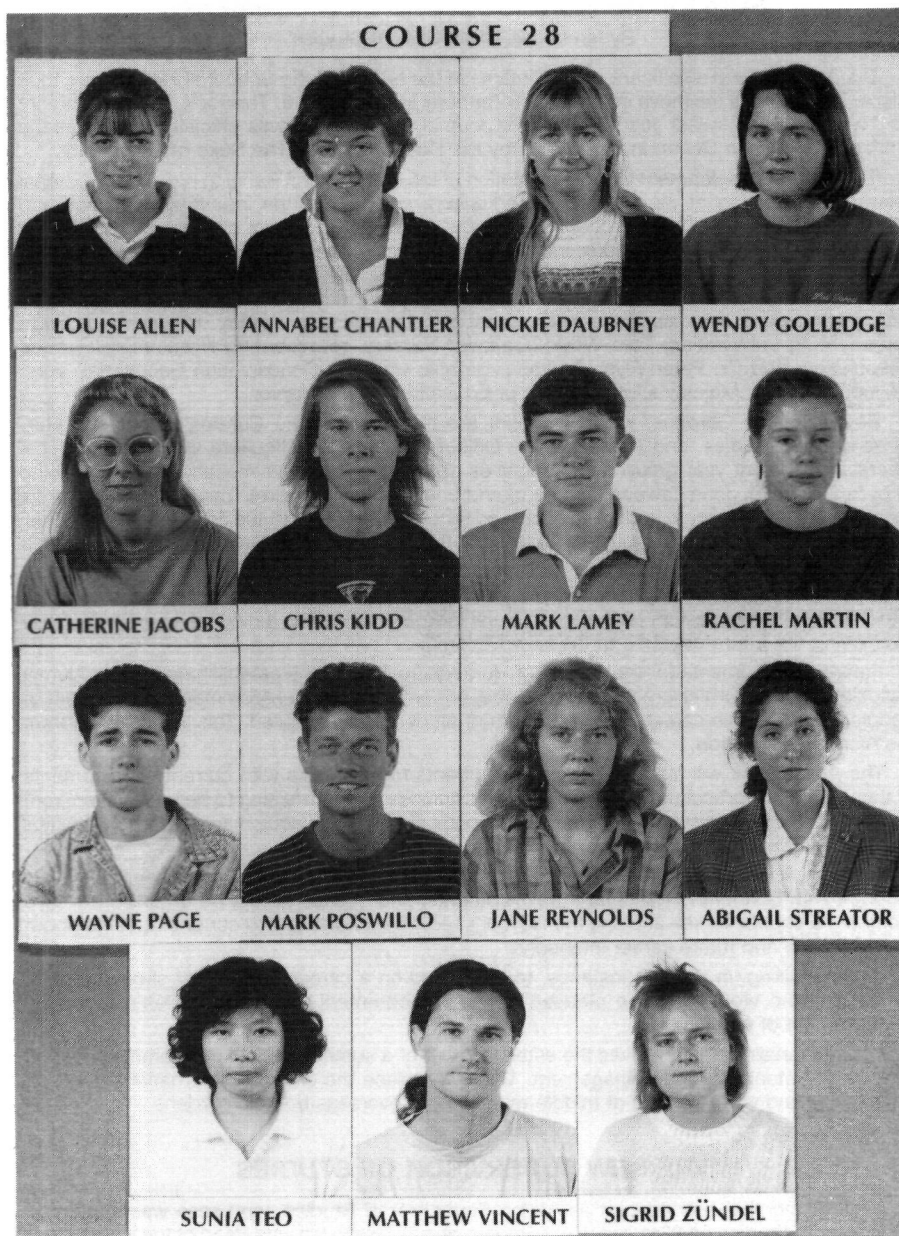


Course 25 after the presentations.

SCHOOL OF HORTICULTURE LIST OF STUDENTS

We welcome this year's new students (Course 28):

- | | |
|------------------|--|
| Louise Allen | Chelsea Physic Garden |
| Annabel Chantler | R.H.S. Wisley Garden |
| Nickie Daubney | Alexandra Palace Garden Centre |
| Wendy Golledge | Merrist Wood College |
| Cathy Jacobs | Grove Nurseries, near Bristol |
| Chris Kidd | Portsmouth Parks Department |
| Mark Lamey | R.H.S. Wisley Garden |
| Rachel Martin | Swanland Nurseries, Hull |
| Wayne Page | Bok Tower Garden, Florida |
| Mark Poswillo | Self-employed landscape design, construction and maintenance |
| Jane Reynolds | London Borough of Highbury and Islington |
| Abigail Streater | Chelsea Physic Garden |
| Sunio Teo | Island Landscape and Nursery Pte Ltd., Singapore |
| Matthew Vincent | Cornish Group Companies, Victoria, Australia |
| Sigrid Zundel | Horticultural apprenticeship at Goppingen and Stuttgart, Germany |



Course 28 incoming 1990.

SCHOOL OF HORTICULTURE DEVELOPMENTS

By Ian Leese, Supervisor of Studies

During 1990, two significant developments in the history of the School of Horticulture took place. The first was the move into what was formerly Museum No. 2. This took place in February and was recorded in last year's *Kew Guild Journal*. The building was officially opened as the School's Education Centre in September by His Royal Highness The Duke of Gloucester.

The second development was the formation of the Independent Panel to provide an external view of the running of the School of Horticulture and ensure the industrial relevance and standards of the Kew Diploma course. Members of the Panel consist of those in the industry nominated by organisations to represent their sector interests. These are: Peter Grimbly (Chairman), from Horticultural Research International, Littlehampton; Arabella Lennox-Boyd, Board of Trustees, R.B.G. Kew representative; Ursula Buchan, horticultural journalist; Peter Styles, Lingard and Styles Landscape, representing the Landscape Institute; Peter Thoday, University of Bath, representing universities; Tom Wood, Oakover Nursery, representing Horticultural Trades Association; and Dr. Peter Wyse-Jackson, Botanic Gardens Conservation Secretariat. John Bennett from Her Majesty's Inspectorate of Education is an observer.

Royal Botanic Gardens, Kew, members are the Director, the Curator, Deputy Curator, Supervisor of Studies, and Administrative Officer, School of Horticulture who acts as Panel Secretary. Student year group representatives at the 1st November meeting were Madeleine Groves (3rd year), Jane Lawson (2nd year) and Louise Allen (1st year). The Panel meets at six monthly intervals in March and November, and receives reports from the Supervisor of Studies, the External Examiners and Industrial Assessor, and the Lecturers'/Examiners' meeting minutes for each trimester.

The Panel further strengthens the progress of the Kew Diploma because of the valuable direct links with key sectors of the horticultural industry, as well as acting as an advisory body overseeing the future direction of the Kew Diploma.

Future developments for the School of Horticulture include the establishment of an Alumni Association of all former graduates. The Independent Panel have recommended that a list of people willing to give careers advice to current students be compiled. This will be done from the Alumni Association.

The Association will also enable former students to have links with current developments of the School of Horticulture. There will be opportunities for fund-raising to be undertaken from the Association for particular items such as computer aided design equipment, travel scholarships and post-graduate scholarships.

In return, it is hoped that a newsletter be produced for the Association to keep members in touch with School of Horticulture developments, and special events be organised to give members a chance to see and use the School's facilities, and to talk to current students about their progress and future career intentions.

Anyone willing, in the first instance, to be placed on a careers advice list should contact Ian Leese who would also be pleased to receive comments and suggestions about the establishment of an alumni.

Another development involves the establishment of a summer school programme covering aspects of botanic garden management. This will replace the one year International trainees programme and will be aimed at middle managers of overseas botanic gardens.

THE NEW SUPERVISOR OF STUDIES

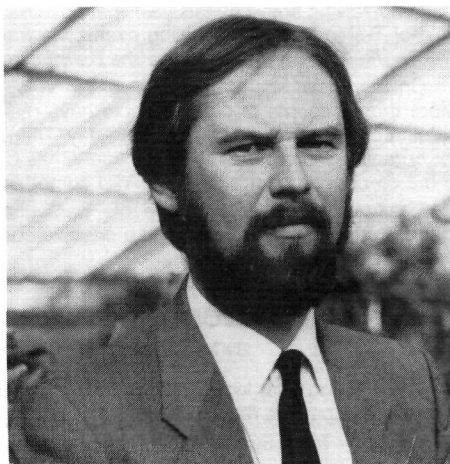
After 12 months' secondment as Acting Supervisor of Studies, Ian Leese was appointed Supervisor of Studies on 23rd July 1990. Prior to being at Kew, Ian was Head of the Horticulture Arboriculture and Management Department at Capel Manor Horticultural and Environmental Centre, Enfield, Middlesex.

Ian was a Kew Diploma student from 1979-82. On leaving Kew he took up a lecturing post at Hadlow College of Agriculture and Horticulture, Tonbridge, Kent. He left Hadlow at the end of 1985 to take up the position at Capel Manor.

Ian has a particular interest in tropical plants for amenity use, and was able to study tropical landscaping schemes and natural habitats in the West Indies after graduating from Kew, as the recipient of the Ernest Thornton-Smith Travelling Scholarship. Interior landscaping displays using tropical plants in this country have been studied by Ian over a number of years.

The post of Supervisor of Studies is a demanding one, especially since it has involved overseeing several changes in the Kew Diploma course. Ian readily expresses his appreciation for all the hard work accomplished by Hazel Hyde, Administrative Officer of the School of Horticulture. Since Gary Castle's departure as Staff Training Liaison Officer in October 1989, Tim Upson (1989) and Matthew Biggs (1987) have filled the post temporarily. David Barnes (1990) has been appointed full-time in the post since September 1990. The School of Horticulture's administrative team has been completed since January 1991 by the addition of Julia Brebner as Administrative Assistant.

Ian is married with two young sons. He says "My wife and I have been looking at schools in the area recently, trying to decide which one would be suitable for our children. One place that I hope they will attend in due course is the School of Horticulture, Royal Botanic Gardens, Kew!"



Ian Leese, B.Sc., M.Hort(R.H.S.), Dip.Hort.(Kew), Cert.Ed., M.I.Hort., Supervisor of Studies.

THE KEW STUDENTS' UNION ANNUAL REPORT

By Russell Forbes, President 1990-91

This year the Students' Union Committee consisted of:

President	Russell Forbes
Secretary	Tony Herwerth
Treasurer	Ian Turner
Social Secretary	Mark Spencer
Fund Raiser	Jono Allin
Sports Secretary	Mark Brent
First Year Representatives	Mark Poswillo, Sigrid Zundel
Second Year Representatives	Amanda Lind, Jane Lawson
Third Year Representatives	Jo Doorne, Jono Allin
GMBATU Representative	Jane Reynolds

The Students' Union has once again continued to represent the student body so as to attempt to play an active rôle in the organisation of the Kew Diploma. Discussion and sometimes rowdy debate has been carried out to help determine the best direction for the course in the 90s.

The avenues of discussion have altered little this year with three members of the Committee and six year representatives meeting the Supervisor of Studies, Mr. Leese, and the Curator, Mr. Simmons, regularly. The Students' Union also has two representatives on the Consultative Committee.

Fund-raising activities this year that have helped keep the bank manager happy include the sale of T-shirts and fund-raising events via the Kew Fayre. Thanks must go to the students who worked so hard to organise the Kew Fayre stand.

On the social scene the year kicked off with a hugely successful 3rd year leaving party. More than a couple of people would have rather left Kew on a much quieter note I'm sure, judging by the red eyes the following day. Thanks go to Madeleine Groves and Tony Herwerth for organising that one. The social scene has been rather quiet since then but hopefully, with some co-operation with the GMBATU something will be underway soon.

Finally, thank you to those people, particularly the Committee, who have taken an interest in the Students' Union and made a positive contribution to its activities. The Students' Union could only survive with their help.

STUDENTS' UNION SPORTS REPORT

By Mark Brent, Students' Union Sports Secretary

The sporting year kicked off with Kew travelling to Wisley for a return football match. In a typically competitive match played in appalling weather conditions, Kew triumphed 2-0.

In March Terry Sunderland organised the entry of a Kew team in the annual Operation Raleigh 'Three Peaks Challenge'. A team of eight walkers, aided by a support crew of three, climbed Snowdon, Sca Fell Pike and Ben Nevis in 36 hours. A total of £750.00 was raised in sponsorship which was in turn donated to the Margaret Mee Trust and Living Earth. Thanks are extended to the many staff who contributed.

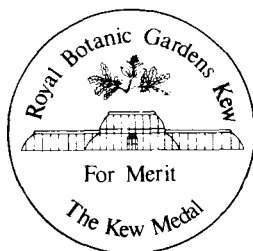
Returning to football, Kew suffered defeat at the hands of the Greyhound Pub going down 6-3. World Cup fever resulted in the students losing to the staff by a considerable margin on Kew Green. The Green was also the scene of the usual student loss in the annual staff-student cricket match.

The Clog and Apron race was won by Matthew Vincent, first lady home was Louise Allen.

September saw a link up with the students of R.B.G. Edinburgh with a Kew football team travelling north to the Scottish capital where they were beaten 4-2 on an artificial surface. A return is planned for March, this time on grass.

Recently the football team halted their losing streak by drawing 1-1 with East Sheen, the legendary Pat Mills scoring a late equaliser.

THE KEW MEDAL AWARDS 1990



The Kew Medal is awarded annually to those whose achievements, contributions or services to the gardens at Kew and Wakehurst Place are considered of outstanding merit and deserving of special honour.

The medal, struck in silver-gilt, was first awarded in 1980, and is inscribed "FOR MERIT". The face design illustrates the Palm House (1840 to 1844) with a spray of Oak (*Quercus robur*)

and Para Rubber (*Hevea brasiliensis*) leaves above representing both the knowledge and work of the staff of the Royal Botanic Gardens.

The name of the recipient is engraved on the reverse of the medal, together with the year of the award, and is encircled with vine leaves and a crown signifying Kew's links around the world.

MR. J. L. S. KEESING

For outstanding dedication and application across his wide range of duties.

MR. E. F. LUXFORD

Who has maintained an exceptional quality of craftsmanship during his 25 years working for Kew.



Left to right: Mr. E. F. Luxford, Professor Prance, Councillor Gent, Mayoress of the London Borough of Richmond upon Thames, H.R.H. The Duke of Gloucester, Mr. J. L. S. Keesing, and Hon. John D. Eccles, Chairman of the Trustees.

THE KEW MUTUAL IMPROVEMENT SOCIETY

By John Anderson

The Society started with an excellent season with over 200 members. Average weekly meetings ranged between 70-85 people. There were five student lectures which were all well attended. Outside visitors have increased over the past year making up about 25% of the audience. Wisley and Hillier students attend regularly.

Spring 1990

Benedict Allen (explorer and author) started off the season with a talk on his experiences with a primitive native tribe of New Guinea.

Tom Cope from the Herbarium spoke on the British Flora, highlighting many species forgotten and sadly neglected. For many it was a valuable look at the native plants.

Professor Prance spoke to a large audience on 'The Lost World' giving an account of his work in the Amazon rainforest.

Roger Chapman from Operation Raleigh gave an account of the group's activities in the Cameroons.

Nigel Hepper gave an excellent portrayal of Egypt in a lecture entitled 'Egypt, Past and Present'.

Student lectures for this season included Carolin Göhler who gave an account of her time in Spain, while a joint lecture by Lorraine Perrins and Pete Hollett spoke about their trip to Florida.

Sarah Oldridge, from the Herbarium, spoke on a volunteer conservation with the National Trust.

Tony Kirkham, Supervisor Arboretum North, gave a lecture on his plant hunting expedition to Korea.

For cacti enthusiasts there was a talk on growing cacti by John Pilbem.

The A.G.M. was chaired by the Curator, Mr. John Simmons, who presided over the new committee for the coming season. Special thanks to those committee members who put in a huge contribution to a successful year: Ian Kirby, Russell Forbes, Peter O'Toole and Camilla Ely.

A new committee was duly elected as follows:

Chairperson: Madeleine Groves

Secretary: John Anderson, Jo Doorne

Treasurer: Amanda Lind

Members: Peter Brandham, Louise Bustard, Dickon Bowling

Autumn Programme

The season started off with a change, the traditional Wine and Cheese Party was substituted for a barbecue evening. This proved to be very successful and very well supported. It was held for the first time in the new School of Horticulture Building adjacent to the Jodrell Laboratory.

The new season started off yet again with the same fire and enthusiasm as the spring season. Nigel Hepper, from the Herbarium, had the audience glued to their seats as he gave an account of his travels in the Cameroons.

Professor Heywood from the Botanic Gardens Conservation Secretariat, spoke on the various rôles of botanic gardens in plant introductions.

Dr. Peter Brandham gave an excellent lecture on the flora of Namaqualand in South Africa, with some stunning photographs.

Student lectures started off with Ian Kirby who spoke on the works of the celebrated landscape designer Sir Jeffery Jellicoe. Jo Doorne gave an account of her time spent in Longwood Gardens, Pennsylvania, U.S.A. To conclude the student lectures Jane Runicles spoke about her trip to Corsica.

Robin Maynard from The Friends of the Earth spoke on the controversial topic of peat bogs and what we should be doing to preserve them.

Graham Pattison from the N.C.C.P.G. spoke at length about his time spent as Curator of the Xalapa Botanic Gardens in Mexico. The title was 'Mexico — not all Deserts'.

Dr. Brindsley Burbridge gave a superb account of his travels in the Northern Andes and showed some excellent slides of the native flora.

Dr. G. Lewis from the Herbarium went in search of beans in the new world and the audience found out much more than they bargained for.

Mike Maunder, Supervisor of the Gardens Developing Unit, spoke about his travels in Southern Japan giving a detailed account of the flora and fauna.

The season concluded with a lecture from Brian Mathew from the Herbarium. The lecture was an account of two beautiful genera **Corydalis** and **Erythronium**.

The last event in the calendar before the Christmas break was the Kew Mutual Music Evening. After much thought it was suggested that an Irish Night would be the flavour of the

month. A band of five traditional Irish Musicians were specially "imported" for the night. The School of Horticulture was yet again the venue, thanks to Ian Leese. Hot Mulled Wine was the call of the night with home-made mince pies and an assortment of Christmas fair. Dancing was in order to work off the over indulged guests. Traditional Irish dancing went on into the near little hours of the morning!

In conclusion the season was another great success with many items of interest before each lecture. This gives everybody the chance to speak for a few minutes on any topic. The committee would like to express their thanks to Dr. Peter Brandham, Louise Bustard and Dickon Bowling who gave us so much support and help throughout the season. It's the little goings on behind the scene that go unnoticed and for these and others — thank you. All that remains to be said is that we wish the new committee a successful year.

LIVING COLLECTIONS DEPARTMENT REPORT 1990

By Ian Beyer, Deputy Curator

I first entered the holy portals of Kew as a student in March 1955 to undergo the rigours of two years' hard labour punctuated by lectures in the evenings; summer evening glasshouse duties between six and seven and a five and a half day week. Saturday mornings brought some light relief in the form of washing out the potting shed even though lowly students were rarely allowed the privilege of holding a hosepipe. How we envied the foremen who seemed to have divine right to the best jobs. Studentship over, it was out into the cold world of commerce; however, the attraction of being able to control a hosepipe drew me back when a vacancy occurred in the Alpine Herbaceous Section in January 1960. Time is but a human measurement but can I really have been domiciled at Kew for 30 years and why did I forfeit the right of holding the hosepipe for the drudgery of pen and paper?

From my chair, I have hardly been aware of how quickly time was passing; now I have suddenly been brought up with a jolt by the realisation that another year has passed and a new decade dawns. The first day of 1990 was not an auspicious one. Grey squirrels represent to those who grow trees a constant menace whilst, to the casual visitor, they are endearing, precocious little creatures, always ready to pose for a photograph if repaid with a morsel of food. Because the Kew squirrel population had reached plague proportions and the damage to both newly-planted and particular species of mature trees could no longer be tolerated, a cull was arranged for New Year's Day. A professional company was instructed to remove as many as possible on one of the two days the public are not allowed in the Gardens, but unfortunately somebody, an unknown, decided the national press should be informed. The story hit the headlines and held public attention for about two weeks which meant telephones of nominated spokespeople were constantly engaged. To those who think we are callous, I would draw attention to the fact a grey squirrel can destroy a young tree in a matter of a few minutes if allowed to do so. That tree may represent genetic material which will be extremely difficult and expensive to replace and forms part of an international plant reference library.

However, in the Rock Garden work continued well into the early summer to complete the rock work and water features at the south-west end. The finally completed rockface and associated waterfalls have dramatically improved the overall effect, blending together a hard rock landscape with the soft banking surrounding the Princess of Wales Conservatory. Work on the bog area in the central part of the Rock Garden where once the "island" dominated, was started in the autumn. Water was used to keep a butyl liner in place within the sunken basin, forming a pond, which looked dramatic throughout the summer, but this has now been emptied and the basin partially filled with soil. Foundations for a dramatic waterfall feature which will also form a small grotto have been laid so that, when completed, both open water and bog area, planted with North American bog plants, will finally provide a new visual dimension we feel sure will be a considerable improvement.

Final touches to the landscape plantings around the Banks Building were completed well in advance of the official opening by H.R.H. the Princess Royal on March 20th. The leaks in the

ponds were finally cured so we felt quite relaxed as she walked through the new garden which, though still immature, clearly demonstrates the economic theme in sympathy with the internal exhibition. In May, the Institute of Carpenters celebrated their centenary by planting a specimen of **Quercus robur** raised from seed from a major tree in Sherwood Forest supposed to date from the time of Robin Hood. A permanently fixed seat designed and made by the Institute was also dedicated by their President and will be found on a mound to the west of the cascade.

The second Royal event took place in September when the Duke of Gloucester was Guest of Honour at the Students' Prize Day and formally opened the new School of Horticulture. Specimens which for many years formed part of the permanent exhibition in Museum Number 2 were sorted, catalogued and finally lodged in the reference section within the Banks Building, leaving the structure ready for conversion for an army of builders and engineers. The final result at long last provides those much-needed facilities essential in this day and age for students to mingle for work and study. Memories of the old Iron Room with its dust and discomfort have long since faded.

Finally, Her Royal Highness the Queen Mother graced Kew with her presence on the 6th November. To celebrate her 90th birthday she was asked to plant two trees on behalf of the Commonwealth Trust at Kew and she graciously agreed to formally re-open the Palm House at the same time. One of the trees was planted in the North Wing of the Palm House; this was a **Macadamia** nut tree (**Macadamia integrifolia**) donated by the Victoria League for Commonwealth friendship in Australia. The other was a walnut (**Juglans regia**) planted on the edge of the Broad Walk just behind the Orangery and donated by the Victoria League for Commonwealth friendship in New Zealand.

The temporary Palm House, once the short-term home for Palm House collections, still contains a large number of cycads which could not be accommodated in the in situ plantings in the new landscape layout. Rather than have the building closed, the staff of the Temperate Section have arranged the cycads to provide a presentable display for the public to enjoy until a long-term decision is made for both the cycads and the structure itself. Unfortunately, the Aroid House (Number 1) near the Main Gate has been abandoned by L.C.D. because most of the plant collection is now represented in the Princess of Wales Conservatory and, secondly, the building is in need of major refurbishment. It is likely that it will eventually form part of a planned new public reception area similar to the one currently under construction at Victoria Gate.

For those who have visited Kew during the last three months, they will have seen the disembowelment of the Shaft Yard and its surrounding tree screen. The reason is the development of a purpose designed Visitor Centre which has been required for so long. Current facilities for the Kew Shop in the Orangery, plus the lack of interpretation, are at long last being addressed, though what visual effects this will have on the surrounding landscape is difficult for doubting horticulturists to judge, but we have always been jealous of our isolation. In a year from now all should be revealed.

Looking forward, plans are well advanced to restore the Waterlily House (Number 15) which is now in a sorry state of repair. Contemporary out of character glazing elements will be replaced by a similar glazing system to that used on the Palm House and much nearer to Turner's original design. Parallel to this, work is going on behind the scenes to address the updating of nursery facilities which are suffering from wear and tear. Consideration is also going to be given to further centralisation in the Lower Nursery on the grounds of economy and efficiency. Shortly, work on an extension to the Jodrell Laboratory is to be started to provide much-needed space for new Kew scientific initiatives.

Spring will herald not only the usual floral explosion but also the opening of the unique Marine Display now inhabiting the new basement under the Palm House. To our knowledge, there are very few demonstrations of marine algae growing in artificial environments because of the intrinsic problems associated with maintaining very complex balanced ecological systems. During the last five years we have made considerable progress in working out techniques and this has enabled us to set up a series of tanks each containing a particular system or element of

the marine world. These range from specific habitat types such as coral reef, temperate rocky shore and tidal tanks to separate tanks containing red, brown and green algae. Added to this, we can use these tanks to demonstrate a number of associated higher plants and sandy shore vegetation which, plus all the propagation and back-up facilities, has been a big investment.

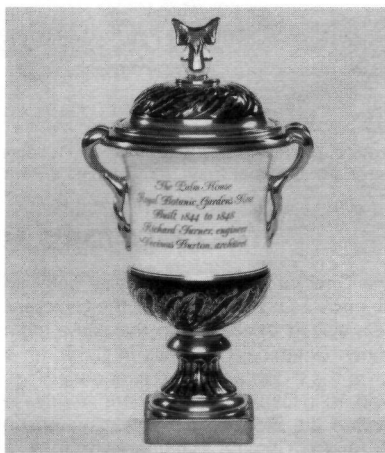
If you either live in the locality or have visited Kew in mid-summer you will know of the concerts which have become part of the annual social scene. Held over three days in July in front of the Temperate House, audiences of up to 3,000 have enjoyed the sounds of traditional jazz for the last two or three years. Acker Bilk, Allan Price and the Pasadena Roof Orchestra provided the entertainment in 1990 with Kenny Ball, Allan Price and the Pasadena Roof Orchestra hopefully booked again in 1991. Come along if you are nearby on the 23rd, 24th or 25th of July.

As was mentioned in last year's report, Christmas festivities are intruding into the life of the Gardens not just as a gimmick to attract more visitors but as a serious attempt to use and exploit an opportunity to tell young children how important the plant kingdom is to mankind. This year the theme was a Victorian Parlour and the plum pudding so Santa had no difficulty developing a story, to which over 2000 children listened intently, based on fruit and spices. Unfortunately, reindeer borrowed from Whipsnade were initially fractious, much to the despair of staff who were charged with the role of keepers but, fortunately, not too many bruises or injuries were sustained.

Staff changes during the year saw the appointment of Charles Shine as Supervisor in charge of the Rock Garden and Herbaceous collections. David Barnes as Supervisor of Staff Training in the Studies section and the promotion of Peter Morris to Supervisor in the Marine Display unit. Recently we have learnt that Sue Minter has been appointed Curator of Chelsea Physic Garden so she will be leaving very soon. Our old friend, Manny the tractor driver (T. Emanuel), retired early in the year and we will miss the smiling face which first appeared on the scene about 30 years ago. In recognition of about 30 years or more service, he was awarded the Imperial Service Medal which was presented by the Director in April.

On reflection, quite a year, so it is not surprising it went so quickly. Many changes have taken place, including the necessary increase of public admission to the Gardens from one pound to three pounds but, underneath, Kew remains in the forefront as a botanic institution as well as being one of the foremost gardens. A tradition we are doing our best to preserve.

EAGLE VASE BY COALPORT



The Eagle Vase presented to Her Majesty the Queen Mother to commemorate her 90th Birthday and visit to Kew to re-open the Palm House, 6th November 1990.

The Eagle Vase is an exclusive Coalport design which has been produced in limited numbers over nearly two centuries. The earliest extant example depicts the Coalbrookdale China Works, hand painted by Thomas Baxter circa. 1810-1815. It is held in the Wells Collection at the Los Angeles County Museum of Art.

Eagle Vases have traditionally been produced to mark special achievements or occasions. Several examples have been commissioned as horse racing trophies. Today the design is used only to commemorate the most prestigious events.

The decoration on this vase (pictured on the previous page) is taken from a view of the Palm House which appeared in the *Illustrated London News* of August 1859. The fine lines of the original engraving have been applied to the vase as a transfer which has then been hand coloured by an artist at the Coalport factory.

Only four bearing this motif will ever be made.

VISIT TO KEW BY THE MINISTER OF AGRICULTURE THE RT. HON. JOHN GUMMER, M.P.



Left to right: The Rt. Hon. John Gummer, M.P., Laura Guffrieda, Brinsley Burbidge, Mrs. Gummer, Iain Prance, Ian Beyer, Mr. Gummer's son, Mr. Gummer's Private Secretary and John Simmons.

THE DIRECTOR'S ACTIVITIES DURING 1990

The Director followed his usual busy schedule. He travelled a good deal, visiting Brazil twice, once as a consultant for the Overseas Development Administration (O.D.A.) in January; he also visited Venezuela in the same capacity in August. In June, he attended the V Latin American Botanical Congress in Cuba, an ethnobotanical meeting in Strasbourg and gave a paper at the II Jornadas de Taxonomia Vegetal in Spain. In September he represented R.B.G. at Expo 90 in Osaka, Japan where he gave three lectures, all of which were very well attended. He visited the Biosphere II project in Arizona in October and in November, he attended the WWF Annual General Meeting in Sydney, Australia and took the opportunity to visit R.B.G. Sydney. He went to Sweden for his induction as a Foreign Member of the Swedish Academy of Sciences, to which he was elected last year.

He attended various scientific meetings and symposia in the U.K., including a meeting on tropical savannas in Glasgow in January and a two-day conference at the Overseas Development Institute in April. He kept in touch with the universities by acting as external examiner for students at Oxford and Trinity College, Dublin, where he went for vivas. He also addressed the U.C.L. M.Sc. half-day course on conservation, which is now a regular event at R.B.G., and lectured to them at U.C.L.

He gave lectures all over the U.K. to schools, universities and various societies: to the Richmond Scientific Society; the Ulster Museum in Belfast; the British Institute of Regulatory Affairs and one of the Kew Winter Lectures; to Haileybury and Cheltenham Colleges; he gave one of the R.H.S. 'Out of Town' lectures at Truro; the Annual Botanical Garden Lecture at Leicester University. He also gave seminars or lectures in the Botany/Biology departments of the Universities of Oxford, Southampton and University College, London, and at Rothamsted. He also opened the Sainsbury Orchid exhibition at the University of East Anglia, Norwich.

He was called upon on numerous occasions as an expert on biodiversity and conservation, frequently with special reference to Brazil. He gave evidence on this to the Labour Party Committee for the Environment and to the House of Commons Select Committee on the same subject. He also gave a number of interviews for radio and TV.

He continued to serve on a number of bodies: as President of the Systematics Association; the Council of the Royal Horticultural Society; the Commonwealth War Graves Commission; the management committee of the Botanic Gardens Conservation Secretariat; the Board of Trustees of the Horniman Museum; the Conference of Museum Directors and the WWF International Council.

Visitors

1990 was a Royal year par excellence: in February, H.R.H. The Prince of Wales came to give a Rainforest Lecture at Kew; in March, H.R.H. The Princess Royal performed the official opening of the Sir Joseph Banks Building; in September, H.R.H. The Duke of Gloucester was the principal speaker at the Students' Prizegiving and in November, as part of the celebrations for her 90th birthday, H.R.H. Queen Elizabeth The Queen Mother came to plant two trees on behalf of Commonwealth Trust and to perform the official re-opening of the Palm House.

Other visitors included the President of Colombia, His Excellency Virgilio Barco, who came in April to give the second Rainforest Lecture. Close contact was maintained with Brazil and Venezuela through a number of reciprocal visits by their Ambassadors. In the Director's absence abroad in April, the President of Vanuatu came to see the orchid work; the Sri Lankan Minister for Agriculture visited later in the year, as did the High Commissioner for Guyana and representatives from the Brunei High Commission to sign a collaborative agreement with R.B.G. R.B.G.'s interest in Madagascar was discussed at lunches with the Madagascar Consul in the U.K.

The Minister for Agriculture, Mr. John Selwyn Gummer, together with his wife and son, paid a visit in April, followed a week later by the Permanent Secretary, Mr. Derek Andrews. Mr. Timothy Sainsbury, Parliamentary Under Secretary, F.C.O., came in June, and the Minister for the O.D.A., Mrs. Lynda Chalker came in August. Other M.P.s to visit the Director were Jeremy Hanley, Mrs. Ann Clwyd and Mr. Dale Campbell-Savours, Labour spokesmen on the environment, and Sir Julian Ridsdale. Others to visit at different times were the Lords Rayner, Latymer, Prior and Clanwilliam.

A large part of the year was taken up with preparations for the Visiting Group which came for a week in October to review the scientific activities of the Royal Botanic Gardens.

The Director's eminence in his field was recognised in 1990 when he received the Botany Medal of the Linnean Society.

ROYAL BOTANIC GARDENS, KEW FOUNDATION

PARACHUTING INTO KEW

By Patrick McLoughlin, Chief Executive Officer

*(from a presentation address made to a Kew Seminar in the Jodrell Laboratory
on 23rd January 1990.)*

Everyone visits the Royal Botanic Gardens, Kew, as a child, especially if you come, as I did, from Scotland to "do" the sights of London. But my understanding of what Kew was all about came later when I began to study the history of the sailing ship which has now become a hobby for me. I read avidly of the voyages of Cook and Banks and those of Charles Darwin and there I found the Kew connection.

When I was approached in November 1989 to see if I would be interested in applying for a job to set up a fund-raising mechanism at Kew, I found the idea interesting and challenging.

For 16 years before I came to Kew I was the European Director of the World Organisation of the Scout Movement based in Geneva, Switzerland. This meant that I worked on the development and co-ordination of the Scout Movement from Greenland to Israel and from Portugal to Turkey. I also spent many years working on developing good relations with the then Soviet Block, contacts which are now helping to re-establish Scouting in all the Eastern European countries. I shall continue my involvement with the Scout Movement in this country as a volunteer.

Scouting is the pre-eminent youth movement in the world today, and was founded in Britain. The Royal Botanic Gardens, Kew, is the pre-eminent botanical institution in the world, and was founded in Britain. Both have made and are continuing to make an enormous contribution to the future viability of our planet.

The Trustees of the Royal Botanic Gardens, Kew, decided two years ago to engage a consultant to study how the developing needs of Kew could be met. The proposal was made that an independent charitable foundation should be set up incorporating a membership organisation to be called the Friends of the Royal Botanic Gardens, Kew.

Michael Godfrey, whose background is in publishing and direct mail, was hired to set up the Friends operation and I was employed to set up and run the Foundation.

We started last year; Michael Godfrey in January, and myself in April. We started from scratch, both of us parachuting into this established and highly respected institution, with virtually no experience of the Civil Service. We have had to devote quite a bit of time to learning how the institution operates and who does what in the hierarchy. This has been a useful and sometimes frustrating experience for both of us.

However, both of us are aware that we can achieve nothing without the support and co-operation of all the staff at the Royal Botanic Gardens, Kew. Neither Michael nor I are botanists or horticulturalists, our skills and experience lie in other directions. Although we are both very interested in gardens and are becoming daily more aware and knowledgeable about what is going on in the Herbarium, the Library, the Jodrell Laboratory, the Living Collections, the Information and Exhibitions, the School of Horticulture, Wakehurst Place et al, we still have a lot to learn.

I cannot emphasise strongly enough the need for the support of all Kew staff if the Foundation and Friends are to succeed in raising significant amounts of money. We have the remit to find new resources to support the work of the Royal Botanic Gardens, Kew. We are working for you and to ensure that the Royal Botanic Gardens, Kew, can continue its vital work.

We have circulated a suggested approach to structuring requests for support. This is designed to ensure that all elements required by a potential donor are included and that the budgeting does not leave out any essential costs.

Setting up a Foundation and Friends operation from scratch, takes time. It is very important to have a Board of people who are going to be able to open doors to those who have the resources we need. There is an adage in fund-raising which says, "people give money to people". We can identify the people, the companies, the trusts and foundations which are likely to help us. We can get to them through the "door openers" on our Boards.

The Board of Trustees of the Royal Botanic Gardens, Kew, Foundation, is composed of:

The Hon. John Eccles	Chairman, Royal Botanic Gardens, Kew, Trustees
Sir Leslie Fowden	Royal Botanic Gardens, Kew, Trustees
Bob Bauman	Chief Executive, SmithKline Beecham
Sir Hector Laing	Chairman, United Biscuits
Lord Prior	Chairman, G.E.C.
Neil Shaw	Chief Executive, Tate and Lyle
Lady Colman	Reckitt and Colman
Dr. Shirley Sherwood	Publisher, <i>Illustrated London News</i> , <i>Orient Express Magazine</i>
Robin Herbert	Chairman, Leopold Joseph, Merchant Bank, President, R.H.S.
Professor Prance	

The Board of Directors of the Friends are:

Richard Lapthorne (Chairman)	Finance Director, Courtaulds
Sir David Attenborough	
Sir John Batten	
Peter Marshall	
Professor Gren Lucas	
Brinsley Burbidge	
Professor Prance	

You will understand that all of these people have a huge network of valuable contacts for Kew and we are now identifying what these are.

We are in the process of developing data on our computers on individuals, companies, foundations and trusts which could support the work of Kew.

We have just established a branch of the Foundation in the United States. This will be called The American Society for the Royal Botanic Gardens, Kew. It is based in San Francisco and will recruit an influential group of directors, and who will help to raise "big bucks" in the United States.

We are advertising in relevant journals to encourage people to leave a legacy to the Royal Botanic Gardens, Kew, and we have written a brochure explaining how to do it.

The Friends of Royal Botanic Gardens, Kew, now have over 3,000 members of which 60 are Founder Members who pay £1,000 each.

The Foundation has managed to secure support for a number of projects and has a large number of others in the pipeline. Despite the uncertain economic climate, many people and organisations are aware of Kew's ability to get on with finding solutions to many of the world's environmental problems. Kew's greatest asset is its scientific excellence and integrity, and this must never be diluted or politicised.

Many things will change over the next few years — this is all part of evolution, but it is all with one thought in mind. To ensure that the Royal Botanic Gardens, Kew, will be able to continue to lead the world in its research and development of the Plant Kingdom, so that we can all say to our children and grandchildren, with hand on heart, this is what we did to leave you a planet worth living in.

(Guild members may obtain a 50% reduction on their annual subscription to the Friends. The Guild Committee agreed to allow the Friends of Kew Gardens to use our Membership List to circulate details of this offer to our members. — Ed.)

SPOTLIGHT ON PATRICK McLAUGHLIN

Chief Executive Officer, Kew Foundation

In April, Patrick McLaughlin was appointed to launch the Kew Foundation, which will be the main private fund-raising area of Kew. Incorporated into the Foundation are the Friends of the Royal Botanic Gardens, Kew. Between them they plan to raise major donations, gifts, endowment and sponsorship for the Royal Botanic Gardens so that the institution can continue to maintain the excellence of the work for which its world reputation is so high.



Patrick McLaughlin.

Patrick McLaughlin was born and brought up in Glasgow, Scotland, and started his career in accountancy. He discovered, however, that he was more interested in people than in numbers and returned to full-time education to study the sociology and psychology of the adolescent, which led him into working full time for the Scout Association in Scotland, as Development Commissioner.

In the early 1970s he moved to London to work at the U.K. Headquarters of the Scout Association, responsible for relations with all non-scout bodies, the Churches, the Government and other organisations related to the work of the Scout Movement.

After his marriage to Elizabeth Ord in 1974, he moved directly to Geneva, Switzerland, to take up the post of European Regional Executive of the World Scout Bureau. The job he had to do for European Scouting was to encourage the development of the Scout Movement in 24 countries from Greenland and Iceland in the north to Israel in the south. This job demanded, besides programme and training skills, a capacity to organise events for large numbers and to raise the necessary resources to keep the movement progressing — there are nearly two million scouts in Europe.

He worked on fund-raising throughout Europe and particularly with the Council of Europe and the European Communities. He also had some significant success in raising major funds in the United States.

During his work for the Scout Movement he has had the opportunity of visiting many parts of the world and the privilege of being directly associated with the people of all of the countries he has visited. He has been decorated by the Scout Associations of Turkey, Cyprus, Iceland, United States, Netherlands, Finland and Norway. He is a Baden-Powell World Fellow and a recipient of the European Scout Recognition Medal.

His three children, Katherine (15), Nicholas (13) and Philip (10) were all born and brought up in Switzerland and are bi-lingual in English and French. His interests include the history of the sailing ship, music — particularly opera, keep-fit, skiing, sailing, walking, gardening and theatre.

(Excerpt from Kew News No. 2 1990)

SPOTLIGHT ON MICHAEL GODFREY

Manager of The Friends of the Royal Botanic Gardens, Kew

The first part of the new Kew Foundation got underway in January with the appointment of Michael Godfrey as Manager of The Friends of the Royal Botanic Gardens, Kew.

Michael sees two clear objectives for the Friends, to raise funds and to create an influential vehicle that will ensure a better public understanding of the value of the plants of the earth and of the rôle of the Royal Botanic Gardens. The first tasks are to determine the cost of membership and the benefits and to create the launch programme. Michael has been delighted to find so much preparatory work already done.

Michael Godfrey began his career in sales and marketing at Kimberley Clark, the Kleenex Tissue people, one of the world's great consumers of trees, so he feels that it is appropriate that now he should do something that will help the environment.

For the past 20 years he has worked across a wide range of publishing, literally from nursery titles to magazines for the retired. Two parts of his career, on New Science Publications and at Saga, are particularly relevant for his job at Kew.

For eight years in the 70s he was the publisher of *New Scientist*, *New Society* and the *Geographical Magazine*, magazines designed to be read both by specialists and the general public. He sees the creation of communication vehicles, a magazine and newsletters, as vital elements in increasing public awareness of the value of the plants of the earth and the rôle of the R.B.G. Kew, and feels that Kew has a wealth of excellent material with which this can be achieved.



Michael Godfrey.

For the last three years, as Managing Director of Saga Publishing, he has set up a very successful Club for the Saga Group, specialists in holidays and services to older people. The promotion and the nature of the Saga Club and the Friends will be completely different but the underlying strategy will have much in common, with the key similarity being in the direct mail nature of the association. To get the widespread support that Kew needs and deserves, the Friends have to be recruited and retained by direct mail.

Michael describes himself as a typical product of a grammar school classical education with no formal science training. A degree in Politics, Philosophy and Economics at Oxford did little to change this. But his years on New Science Publications stimulated an interest in anthropology and cosmology and to these he intends now to add botany and horticulture.

He lives with his wife Wendy, a cookery writer who is a marketing manager for J. Sainsbury, in Barnes where they have run out of wall space for their collection of contemporary British painters. Their three sons are 'almost off our hands'. A member of Roehampton Club, he plays golf off a nine handicap. He has suffered from high frequency deafness all his life but is a good lip reader and a fair guesser. With hearing aids and a little patience, on occasions, from colleagues, his work is not affected.

(Thanks to the Kews News 1990 from which this excerpt is taken)

KEW MAGAZINE

The Royal Botanic Gardens, Kew, is launching its own quarterly magazine looking at present-day environmental issues and how they can be tackled in a positive way.

The Royal Botanic Gardens, which is currently taking part in environmental projects in 59 countries, is in a unique position to pass on up-to-date information on botanical and horticultural issues.

The new magazine, KEW, will be in full colour throughout, and will be mailed to members of the Friends of the Royal Botanic Gardens, sold for £1.75 in the Kew Shop and be test marketed through newsagents to the general public in the south of England.

KEW also aims to celebrate the beauty and utility of the plant world through a botanically informative cookery column and a look at the artistic side of plants.

The Editor, Jeremy Cherfas, says it will be a major link between the scientists working to save the plant world and people who want to help their efforts. It will also support the mission of the Royal Botanic Gardens, Kew, to increase the awareness of the importance of plants and the better management of the world's plant resources.

The first issue, which will be published on 24th January, 1991 examines the truth behind recycled paper, how plants know when to wake up from their winter sleep, and the rebuilding of Kew's great glasshouse.

WAKEHURST LOOKS TO THE FUTURE

Tony Schilling and **Mark Flanagan** look back — and forwards to great achievements



A 400 year old Tudor mansion is the centrepiece of the estate.

The year 1990 marks the 25th anniversary of the acquisition of Wakehurst Place as an annexe to the Royal Botanic Gardens, Kew, and coincidentally also the 400th anniversary of the construction of the Tudor mansion. Built by Edward Culpeper, this sandstone building stands as his memorial and centrepiece to the estate.

In 1963 Sir Henry Price (the last private owner), bequeathed Wakehurst Place to the National Trust, and on 1st January 1965 it was leased to the Ministry of Agriculture, Fisheries and Food for the furtherance of scientific research and for development as a public amenity. This arrangement came about because Sir George Taylor (then Director of Kew) recognised the garden's value as an adjunct to Kew, affording opportunities for the expansion of horticultural science which were not possible in the Thames Valley.

In addition to the advantages of space, Wakehurst also possessed a beautiful natural landscape, a higher rainfall, less pollution, better frost-drainage and a richer soil than Kew. The

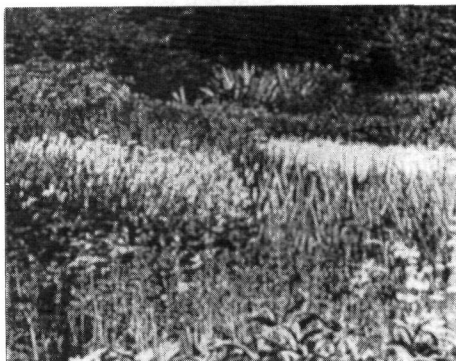
estate was also conveniently sited a mere 40 miles to the south of London, in the High Weald of mid-Sussex, and within an area of outstanding natural beauty.

In many ways Kew and Wakehurst complemented each other and were equipped to develop harmoniously; as they have for the last 25 years. Given the necessary resources, the next 25 years should prove even more interesting as the potential for expansion is enormous.

From the outset, the challenge was to change the garden from a private one to a public one without destroying its character, retaining that which was valuable of the old tradition and blending in new features. New entrance paths and service roads, as well as subtle alterations to existing rides, had to be made, otherwise the visitor numbers which we experience today (185,000 in 1989) could not be accommodated without damaging what they come to see.

The Southern Hemisphere Garden was adapted by merging borders and widening grass paths; the Water Garden and Bog Garden complexes were rationalised and improved by visually harmonising the separate features through the planting.

The borders by the Walled Gardens were reorganised to display monocotyledons, many seldom seen in cultivation. The Walled Gardens themselves were much altered. The larger of the two was named the Henry Price Garden and has since become widely recognised for the effect it presents during the summer months.



The Bog Garden has been developed from an area of pond.



A view of the Himalayan Glade.

The main collections throughout the gardens have been laid out in geographic sequence, in marked contrast to Kew where the format is mainly taxonomic. One example is the deep, ravine-like Westwood Valley, which is set aside for the Asian collection, and it was for this reason that the Himalayan Glade was created halfway down its northern flank. This example of eco-horticulture (or is it hort-ecology?) has been very popular because of its dramatic natural setting and the effect created by the plantings. Commenced in approximately 1973 it is now one of the highlights of Wakehurst and unique in character. A high percentage of the plants are from wild origin and many, such as *Cotoneaster cavei* and *Berberis gyalalica*, are rare in cultivation. It is a fragile feature requiring sensitive management and lends itself ideally to interpretation which is an important responsibility for today's botanic gardens. Westwood Valley also nurses the major part of the rhododendron collections which have long been among the attractions of Wakehurst.

A good many garden plants of merit grown today have Wakehurst origins or connections. *Pieris formosa forrestii* 'Wakehurst' (FCC 1930) is the most famous but other examples include

Camassia leichtlinii 'Eve Price', **Viburnum tinus** 'Eve Price', **Pieris formosa** 'Henry Price', **Rosa** 'Caprice' (syn. **Rosa** 'Eve Price'), **Rhododendron degronianum** 'Gerald Loder', and **Leptospermum scoparium** 'Alfred Coates'. A very recent addition is **Ozothamnus** 'Sussex Silver', an interesting Wakehurst hybrid which occurred spontaneously in the garden close to its parents **O. hookeri** and **O. rosmarinifolius**. Its elegant, wand-like silver branches are bedecked with white flowers in May and it has already been taken up by the trade, and will hopefully gain popularity and wide acclaim.

The first 22 years of Kew's management of the garden progressed systematically, apart from the inevitable problems created by the normal vagaries of the British climate. However, the great storm of October 1987 caused a catastrophic change: the 202 ha (500 acre) estate lost 15 to 20,000 trees but the exact figure will never be known. Standing 152m (500 ft.) high in the Sussex Weald, and in the main path of the storm, Wakehurst took the full brunt.

In spite of the devastation, the upper part of the garden and the restaurant were reopened within 16 days and the visitors returned to see what had happened to the garden they loved. Support came from many directions. Additional government funds, public donations, media coverage and practical skilled assistance by arborists from Askham Bryan and Edinburgh Botanic Garden, as well as overseas assistance from the Morris Arboretum and Longwood Gardens in Pennsylvania.

That October night was referred to by one journalist as 'the night that felled a heritage', but Wakehurst, like the Phoenix, has risen from the ashes and in the long term it will be an even greater garden, thanks to the fortitude and dedicated attitude of the staff. The garden, like certain cocktails, had been shaken but not stirred.

Yes, much of the majestic oak woodland had been felled, or left torn and tattered with limbs looking more like fibre ropes than mighty branches, and many of the champion trees of Britain had been lost from the exotic collections. The sad losses included **Davidia involucrata** var. **vilmoriniana**, **Stuartia sinensis**, **Euodia glauca**, **Liriodendron chinense**, **Liquidambar orientalis**, **Picea spinulosa**, **Picea breweriana**, **Pinus patula** and **Pinus coulteri**. Thankfully, among the colossal arboreal chaos, there still existed the many young plantings made over the last 22 years of Kew's custodianship. Exciting new views had been created that we would never have been forgiven for making ourselves. For instance, instead of looking down the main entrance path to the trees which previously filled the picture a mere 183m (200 yd.) ahead, one now has an uninterrupted view as far as the South Downs, 12 miles away.



The Winter Garden has been increased in size since the 1987 storm.

Despite the daunting scale of the post-storm task, the opportunities that emerged have proved to be very stimulating and a major restoration programme has begun. This final decade of the 20th century will hopefully mark a period of accelerated development.

During the winter of 1986/87 a start had already been made on a Winter Garden to the west of the Mansion, and due to the loss of several very large trees during the storm, additional space and light was created for expanding the planting plans still further; yet another positive outcome. The memory of the two over-mature specimens of **Cedrus atlantica**, the massive yew tree and the mighty **Pinus nigra** has already faded, and the replacement trees, chosen for their winter effect, more than make up for the losses. This part of the garden has been planned to accommodate the less well-known

as well as the more familiar plants of winter appeal and is already giving a great deal of pleasure and information to visitors.

The major restoration programme lies in the area east of the Mansion pond where a totally new feature is being created — the trans-Asian Heath Garden. This will effectively replace the Rhododendron Walk, totally destroyed by the 1987 storm.

The aim is to display in a semi-ecological manner, plants which naturally occur at or above the tree-line in the cool-temperature regions of Asia, and the area has been sub-divided into geographical zones (Taiwanese, Korean, Japanese and Sino-Himalayan) to reflect the way in which these plants naturally associate in the wild.

Various sub-alpine woodland plantings have already been irregularly set out to provide additional structure, height and shelter to the exposed site. Once essential cultivation operations have been accomplished, planting of the heathland species will begin, using a predominance of dwarf rhododendrons complemented by **Cotoneaster**, **Berberis**, **Potentilla**, **Juniperus**, **Gaultheria** and other naturally associated species.

At the southern end of the feature it is planned to display a collection of dwarf rhododendron hybrids (which are the direct result of crossing two Asian species), and multiple hybrids of Asian 'blood' thereby completing the story from primary introductions through to the results of modern-day hybridisation. The scale and content is ambitious and the final picture will take several years to mature, but, as the 1990s advance, this new garden will add more to this quarter than was lost through the storm.

Important spin-offs have followed. A new, and potentially more extensive, Rhododendron Walk is being set out in a slightly more sheltered position above the Water Garden, and the original Southern Hemisphere Heath Garden will be reorganised to display separately the Tasmanian, Australian, New Zealand, South American and South African plantings in a more structured and meaningful fashion. However, the traditional atmosphere of this historically important collection will be given constant consideration as we weave the past into the present. No garden can stand still if it is to thrive; it must develop constantly. This philosophy at Wakehurst is safeguarded by the consultative panel, which meets twice a year to guide, advise and safeguard both Kew's and the National Trust's interest in the estate.

In the longer term, the representation of conifers in the Pinetum, hideously mauled in 1987, is to be completely reconsidered. Instead of being, as it once was, an attractive but random collection it is to be arranged geographically, so that it fits into the general scheme of things at Wakehurst, and lends itself to more effective visitor interpretation. In addition to being an attractive garden in a beautiful setting Wakehurst is intended to provoke thought and inspiration for the visitor. Even more importantly, it provides authentically-documented material for scientific reference and research, much of which relates to conservation.

In 1980, following negotiations with the local water authority, The Loder Valley Reserve was opened. This 50 ha (124 acre) area of Wakehurst comprises semi-natural woodland, forestry plantations, wetland and meadowland, surrounding the northern arm of the Ardingly Reservoir — which is included within the estate. The only sizeable reserve of its kind within the boundaries of a British botanic garden, this provides a refuge for the flora and fauna of the Sussex Weald and is open daily by advance application.

Ten years after its formal opening much remains to be done to fully realise the educational potential of the Reserve and over the next decade it is hoped that a still greater commitment can be made towards that end. Its importance can only increase as land demands increase and natural ecosystems further diminish.

This dichotomy of development lies at the very centre of the estate's management philosophy, balancing the needs of the abundant wildlife of the area with the central role of Wakehurst as an international botanic garden. It is demonstrated in many ways. Within the Mansion, the Physiology Section of the Jodrell Laboratory strives, through their research, to unlock the secrets of seed longevity and germination.

Within the gardens a large area is designated as a Site of Special Scientific Interest. This area is very sensitive to change and a special management plan has been drawn up between

Wakehurst and the Nature Conservancy Council in order to balance arboretum management with the conservation needs of natural habitats.

Wakehurst also has responsibility for four National Collections: **Betula**, **Hypericum**, **Nothofagus** and **Skimmia** which, under the collective aegis of Kew and the N.C.C.P.G., will be given special curatorial attention.

It has been written that a garden is one person's lifetime and, although this may sometimes be true, Wakehurst is too complex for that. It is already many past people's lifetimes and it will continue to thrive via the efforts of others who follow. Botanic gardens are 'green museums', dynamic but constantly vulnerable to the elements. Unlike national galleries, their custodians are obliged to tend their treasures under the open skies and the risks are frequently high; but then so are the rewards.

Festivities to celebrate the 400th birthday of Wakehurst Place take place from 14th to 17th June. Events include a four-day Elizabethan craft-fair, and grand alfresco evening events featuring music, food, wine and fireworks. Telephone bookings and information, 0444 892147.

Tony Schilling, V.M.H., who has been responsible for Wakehurst Place for 23 years, has introduced many plants to cultivation, especially from the Himalayas and China.

Mark Flanagan, M.Hort.(R.H.S.), is a Garden Supervisor at Wakehurst Place with responsibility for major amenity features and related specialist collections.

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ANTONY DAVID SCHILLING, M.Arb., F.L.S., F.R.G.S., F.I.Hort., V.M.H. — AN APPRECIATION

It is fitting, in the year of his retirement, that Tony Schilling's horticultural background is remembered.



Tony Schilling.

Tony was born in 1935 in Brighton. Following a horticultural apprenticeship at Hendon and studentship at Cambridge Botanic 1957-58 he became a "Kew Student" in 1959-61. This was followed by a further three years at Kew as Gardens Supervisor and a two year secondment to the Royal Nepal Government. He went to Wakehurst Place in 1967 and has been there ever since.

Tony has had a career of committees — R.H.S. Floral 'B', Joint Floral, Rhodo and Camellia, Int. Conifer Register Advisory, Kew Magazine Advisory, Hillier Arboretum Management and Standing Advisory Panel Meeting.

He has also spent months on expeditions, adding to horticultural knowledge around the world — Norway in 1961, then Nepal, Rhodes, Crete, Cyprus, S. Turkey, Poland, U.S.A., Australia, China and Bhutan, and New Zealand.

Tony has also contributed well over 50 papers and publications — from our own *Kew Guild Journal* to the *Journal of the R.H.S.*, *Horticulture Week*, *Popular Gardening*, *Plantsman* and others. Looking at all the titles of these publications, and looking at his listed hobbies of lecturing, photography, mountaineering, walking, listening to music, gardening and writing, I realised what a wealth of exploration and information Tony Schilling has given to us in his all too short career with Wakehurst.

Following his early retirement he will be concentrating on a new career in horticultural and travel consultancy. We wish him well for the future.

Richard Ward, *Editor*

STOP PRESS. On 26th February 1991 Tony married Victoria Hallett, a dendrologist and Registrar of the Tree Register of the British Isles. Best wishes to you both!

EXCERPTS FROM KEW NEWS 1990

with thanks to the Editors



'Thirty years at Kew and all I get is an inflatable banana.'

Thirty Years at Kew

In early December John Woodhams celebrated 30 years at Kew, which was signified by the anonymous hanging of a giant inflatable banana over his desk; as John said 'anywhere else and I would have got a gold watch, here I get an inflatable banana'.

(Mike Maunder — *Kew News* No. 1 1990)

WHO'S WHO AT KEW

Heads of Department (Part 1)

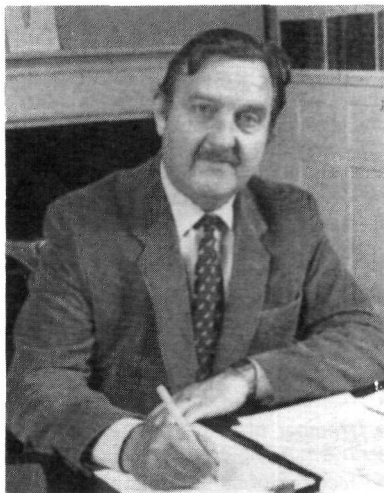
Gren Llewellyn Lucas was born in December 1935 — just in time to hear King George V give his Christmas message. I can't remember that but I do remember enjoying the war. It greatly helped my collecting instinct (fundamental to an herbarium botanist). By 1948, I had a collection of bomb shrapnel, parachute silks, incendiary bomb tail fins, as well as sea shells, fossils, minerals, pressed seaweeds and flowering plants, stamps and coins.

My interest in natural history was fuelled by my grandfather initially, but greatly honed up by Dr. Hyde and Mr. Wade of the National Museum of Wales. After taking my A levels, I went to work for Distillers Company, not brewing whisky but making and testing plastics and resins. Then it happened! I read Ronald Goods *Plant Geography*, and consequently went to University (Hull of all places) to study botany. Then to Kew on a Colonial Office Scholarship, on to Nairobi to serve under Bernard Verdcourt, and finally back to Kew on the Flora of Tropical East Africa team. Over the years my role has changed and in 1973 I set up the Conservation Unit, to cope with those early days of C.I.T.E.S. and Kew's new role as the 'Scientific Authority' for plants.

Conservation of animals also became important and eventually, in my 'non official' hours, I became the Chairman of the Species Survival Commission of I.U.C.N. — a post I have recently retired from.

In my 'official hours' I moved on to become Deputy Keeper, Acting Keeper, and now Keeper and Deputy Director. My hobbies are: R.B.G., Kew; collecting books and pottery; R.B.G., Kew; book binding; and R.B.G., Kew!

(*Kew News* No. 1 1990)



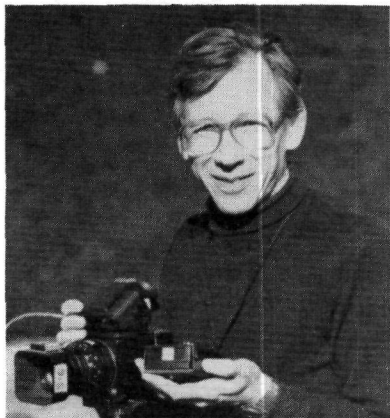
Gren Llewellyn Lucas, Deputy Director and Keeper of the Herbarium.

Heads of Department (Part 2)

Brinsley Burbidge was born in 1943 and grew up gently in rural Lincolnshire where an early passion for breeding rodents showed an acute lack of commercial sense: ferrets were

the recognised form of currency. The process of growing up continued (but is still incomplete) with help from the academic treadmill in Scotland where he gained a B.Sc. in Botany at the University of St. Andrews and a Ph.D. at Edinburgh University.

His academic development was briefly halted by a spell as a graduate student at the Jodrell Laboratory in 1967. While working for Keith Jones, who was Keeper of the Jodrell, he learned



Brinsley Burbidge, Head of Information and Exhibitions Department.

the rudiments of having a spectacularly good time at Kew as well as preparing innumerable karyotypes of obscure members of the Commelinaceae.

In 1970 he became the first Education Officer at the Royal Botanic Garden, Edinburgh, and in 1975 changed allegiance back to scientific research to work on the **Ericaceae** of Andean South America. As well as teaching the horticultural students at the Botanic Garden, he initiated a course in botanical illustration at the Edinburgh College of Art and taught plant biology to landscape architecture students who had some difficulty distinguishing a holly from a recently mown lawn. His early obsession for breeding rodents was replaced by a passion for photography which resulted in a Fellowship of the Royal Photographic Society in 1980.

In 1986 he returned to Kew, hoping to put into practice some of the lessons learnt from Keith Jones but found that Kew was a much changed organisation and that he was part of that change. His current obsessions are to ensure that Kew remains the most respected botanic garden in the world, to survive long enough to return to breeding rodents and to own more Liberty ties than Professor Mike Bennett.

Thomas Bailey. Recruited from J.H.Q. Rheindalhen, West Germany, in 1985 to plan and implement the transfer of building and Maintenance responsibility from P.S.A. to R.B.G. Kew, and subsequently to establish the Building and Maintenance Department.

Has over 25 years experience in the construction industry covering a wide range of general and specialist jobs which include:

- Responsibility for maintenance and new works for many large MoD and civilian establishments. Most of these sites had more than 1,000 units of accommodation with the associated infrastructure.
- Member of an emergency new works team.
- Member of a management team investigating serious building defects.
- Member of an industrial management unit with the task of improving the efficiency of 2,000 German building and engineering operatives.
- Recent winner of the Lord Pilkington Prize in Project Evaluation and Development presented by the Chartered Institute of Building.



Thomas Bailey, Head of Building and Maintenance Department.

Rebecca Bower. Having obtained a degree in mechanical engineering, I decided to have a complete change of career and moved into accountancy! I trained in the London office of

Touche Ross & Co. and qualified as a Chartered Accountant in 1982.

After several years in the head office of Bowater Industries PLC, I joined R.B.G. Kew in October 1987 as I wanted to work in a more conservation-orientated organisation.

I have overall responsibility for the service that Finance provides to the other Sections within R.B.G. Kew and for ensuring that, wherever required, financial input and information is available so that the right decisions are made!

(Kew News No. 2 1990)

Margaret Mee Amazon Trust

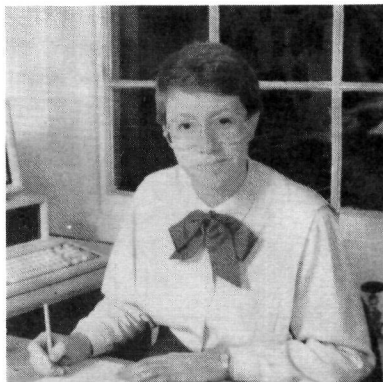
Award of 1990 International Margaret Mee Scholarships.

The Margaret Mee Amazon Trust and the Margaret Mee Botanical Foundation of Brazil (Fundação Botânica Margaret Mee) are pleased to announce the first 1990 awards under their joint International Margaret Mee Scholarship scheme.

Maria Helena Barretto is a Brazilian botanical artist and illustrator who has worked in close association with botanical researchers in Brazil for a number of years. She knew Margaret Mee well and studied with her. She will spend a six-month training period in Britain, based at the Royal Botanic Gardens, Kew, and aims to acquire as wide an experience as possible in technical aspects of botanical painting and drawing while she is here. On her return to Brazil she will work on a project to illustrate threatened plants of Brazilian forests and in the longer term, to set up a local training centre for botanical illustrators. Her Scholarship is funded by a donation from Headley Trust.

Antonio Toscano de Brito is a Brazilian botanist who specialises in the study of orchids. He is currently studying for his Ph.D. at the University of Reading, in association with the Royal Botanic Gardens, Kew. His Scholarship will support a five-month field study of orchids of the fast-vanishing rainforests of the Atlantic Coastal area of Brazil, in the state of Bahia. An important aspect of his work is to investigate future possibilities for micropropagation of the many species faced with extinction in the near future. The orchids of this region include some of the most important original introductions to horticulture and represent a gene pool of outstanding importance.

(Simon Mayo — Hon. Secretary, Martin Pendred — Trust Administrator — Kew News No. 2 1990)



Rebecca Bower, Financial Controller.



'Manny' receiving his farewell present on 19th January from the Curator, John Simmons, watched by Assistant Curators, John Woodhams, Hans Fliegner, Stewart Henchie and Charles Erskine and Deputy Curator, Ian Beyer.

'Manny'

Mr. T. Emanuel, known to all as 'Manny', started work at Kew in January 1958 and for the majority of his time here operated the large digger/loader tractors doing the very important jobs of heaping up manure, compost, leaves and soils and burning all woody rubbish. 'Manny' was also involved in digging out the stumps of fallen or diseased trees, digging the inside of the Temperate House and recontouring the banks outside, as well as mixing composts on a large scale for the Princess of Wales Conservatory and the Palm House.

EXCERPTS FROM JODRELL NEWSLETTER

Thanks to Mike Bennett for permission to use them

Two Royal Lectures in the Jodrell



Early 1990 saw two Royal events at R.B.G., Kew. On Tuesday 6th February, H.R.H. The Prince of Wales delivered a major lecture on rainforest conservation to an invited audience in the Jodrell Lecture Theatre. R.B.G. Director Professor Ghilleen Prance noted Kew's long and continuing worldwide involvement in rainforest research, which made Kew a most appropriate venue.

The Prince called for a Rainforest Convention to protect the forests, along the lines of existing International Agreements on the marine environment and restoration of the ozone layer.

A rainforest convention should establish a rationale for its genuine sustainable use. It should protect the ecological and physical processes essential to regional and global climates; maintain diversity; establish rights for forest dwellers; set targets for reafforestation; establish compensation for countries that suffer financially by controlling destruction; and persuade industrialised nations to pay.

H.R.H. underlined the urgency of his subject: "We are literally the last generation which can save the rainforest from total destruction. The sands of time in the tropical hour-glass are running out fast, and we can't turn it upside down and watch the sand run out again."

In his wide-ranging analysis of the importance of rainforests the Prince also called for more research into the medicinal and other benefits of rainforest plants: "The genetic reservoir of the plant and animal life sharing our world provides us with the most perfect survival kit imaginable as we face the unknown challenges of the future."

On 20th March, H.R.H. The Princess Royal came to Kew to open the new £4M Sir Joseph Banks Building. This houses an exhibition centre at Kew's outstanding economic botany reference collections and library. The first exhibition is about cellulose. Entitled "The Thread of Life", it is co-sponsored by Courtauld and *The Daily Telegraph*. Early this century Courtauld became the first company in the world to produce a commercially successful man-made fibre, which became known as viscose-rayon. Viscose was developed by Charles Cross and Edward Bevan, who began their research into methods of producing textile fibres from wood in the Jodrell Laboratory in 1883.



The Princess Royal discussing wood anatomy with David Cutler (left) and Mike Bennett (right).

Before touring the Sir Joseph Banks Building, the Princess heard a seminar on economic botany at Kew given by Professor Ghilleen Prance (Director), Professor Grenville Lucas (Keeper of the Herbarium), and Dr. Brinsley Burbidge (Head of the Information and Exhibitions Department) before an invited audience.

(Jodrell Newsletter April 1990)

Poisonous Plants in the Americas

The tropical floras of Central America contain a number of genera of current interest to members of the Biochemistry section in their search for plants containing biologically active ('poisonous') chemicals. To initiate long term collaborative projects with scientists in Costa Rica and Nicaragua, Rob Nash undertook fieldwork in these countries last summer with staff of the Museo Nacional in San José and the Universidad Nacional Autonoma de Nicaragua. Before the expedition, Rob gave two lectures and a poster presentation on Kew's work in plant chemistry at the 3rd International Symposium on Poisonous Plants, held in Utah, U.S.A.

(Jodrell Newsletter April 1990)

Two Down . . . Three To Go

Further progress towards the Kew Seed Bank's aim of fielding a team of five seed collectors was made in April, with the arrival of Mark Newman. Funded by Marks and Spencer plc for two years, Mark is our second overseas collector and he will concentrate on arid and semi-arid areas in South and Central America. Hew Prendergast was the first to be appointed, with a primary responsibility for Africa.

Mark's background includes a Ph.D. in cytotaxonomy of the Zingiberaceae, involving extensive fieldwork in Thailand. Together with a recent trip to Vietnam, this has given him valuable experience for his seed-collecting missions, which will involve long periods abroad. Unfortunately his fluency in Thai will be of little use in Latin America and he is having to brush-up his Portuguese and Spanish!

The solid collecting effort to come is based on sound early planning and Mark has been busy with this from day one. He has just returned from a five-week preliminary visit to Brazil and Mexico, where he established a number of good local contact and potential collaborators. These links will be vital to the success of the collecting expeditions.



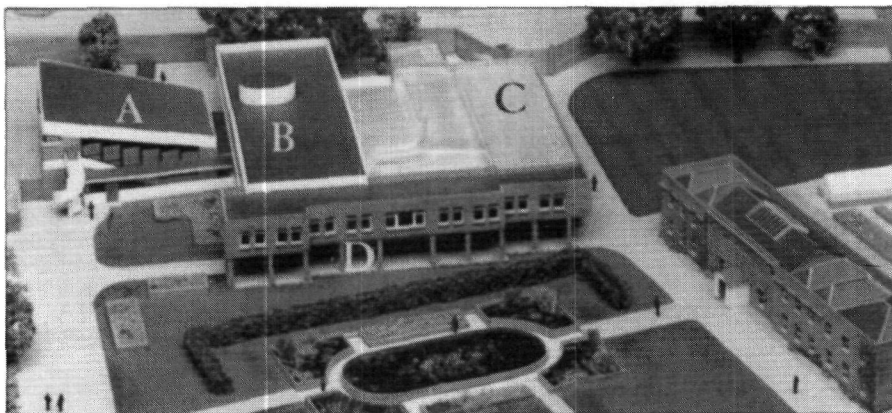
Mark Newman, Kew's second overseas seed collector, funded by Marks and Spencer plc.

(Jodrell Newsletter October 1990)

Ministry Approves Major Extension to the Jodrell Laboratory

The Jodrell's existing and proposed research programmes at Kew are currently limited by lack of space, inadequate facilities, and dispersed buildings. Studies made in Spring 1988 showed that enlarged, unified and purpose-built accommodation would be best provided by extending the main Jodrell laboratory. Achieving this as soon as possible has been, and remains, the Jodrell's highest priority.

The case for extending the main Jodrell Laboratory was submitted to M.A.F.F. in June 1989 and Treasury approval of £2.7m for the scheme was given in December 1989. Planning work had begun with P.S.A. architects in May 1988 and accelerated once Ministry approval was given. The plans went to Richmond Council in late Summer 1990 under the consultation procedure used for Crown Properties. Subject to agreement, work on Phase 1 (basement and structural frame) should start in Autumn 1990, and completion of Phase 2 (external skin and internal finishes) is expected by May 1992.



A model of the proposed extension to the Jodrell Laboratory showing the existing lecture theatre (A) and laboratories (B), and the new science facilities (C) and research offices (D). The view is looking from the west over the Victorian Aquatic Garden with the newly refurbished School of Horticulture at the bottom right.

The extended Jodrell Laboratory will include: molecular biosystematics and biochemistry suites; a basement area for heavy equipment; a unified electron microscope suite; a common preparation room and stores; a specialist library; a shared computer and image analysis suite; desk space for Ph.D. students and research visitors; offices for senior staff; and a new staff common room. It will enable most of the Jodrell research staff to be housed under one roof, although the Physiology Section will remain at Wakehurst Place.

This exciting development will be of major long-term benefit to Kew's research output and capability.

Is your institution on our mailing list? Jodrell Laboratory, Royal Botanic Gardens, Kew, Richmond, Surrey TW9 3DS. 081-940 1171.

EDITORS: **Geoffrey Kite** (Biochemistry), **Ann Kenton** (Cytogenetics), **Paula Rudall** (Anatomy), **John Dickie** (Physiology: 0444-892701).

(Jodrell Newsletter October 1990)

WEATHER FOR KEW 1990

By Dickon Bowling

*Year's total rainfall: 471 mm

Most rain in one day: 17.6 mm on 3rd February 1990

**Highest temperature (maximum): 36.2°C on 3rd August 1990

Lowest temperature (maximum): 1.3°C on 9th December 1990

Lowest temperature (minimum): -4.2°C on 5th April 1990

Highest temperature (minimum): 17.4°C on 24th August 1990

Most sun in one day: 15.2 hours on 26th May 1990 and 14th July 1990

Year's total sunshine: 1,918.5 hours

Mean daily average: 5.24 hours

***There were 23 nights when the air minimum temperature was below freezing, 100 nights for the grass minimum temperature and 73 nights for the concrete minimum temperature.

No sun was recorded on 58 days and no rain was recorded on *180 days of the year.

****The strongest wind speed was 40 knots with gusts up to 64 knots. It was a W.S.W. wind on 25th January 1990.

Of 77 pH tests, ranging from 4.87 to 7.38, the average was pH 6.66.

* = driest since we started recording in 1980.

** = highest temperature since we started recording in 1980.

*** = 1988, 1989 and 1990. there have been less nights with temperatures below freezing since we began recording in 1980.

**** = the strongest wind speed since we started recording in 1981 (October).

KEW SEEKS WIDE SUPPORT TO OVERCOME CASH PROBLEMS NEW CHARGES NEEDED TO SUPPLEMENT GOVERNMENT GRANT

Details from a Press Release

The increase in admission charges at Kew with a standard charge of £3.00 at Kew from 1st November 1990 is part of a realistic re-examination of the financial needs of the Royal Botanic Gardens if the quality of the gardens is to be maintained and they are to fulfil their role in research, world conservation and education.

Kew's role in research and conservation projects now extends to some 59 countries, and requires extra funding amounting to at least £20 million over the next three to four years.

In recent years the Trustees of Kew have accepted that there will be severe limits to the funding available from government sources. Kew's grant-in-aid this year is £11.6 million, with a further £1.6 million for capital expenditure on buildings. However, this represents a significantly lower level of grant in real terms than Kew previously enjoyed and does not even meet the day-to-day running costs of Kew Gardens, let alone the additional programmes of work Kew is ready to undertake.

As the Chairman, John Eccles, says "The Trustees of Kew are determined to respond to a world-wide demand for Kew's science and they look for the widest possible support from the public. Given world environmental issues and Kew's acknowledged pre-eminence it would be folly to reduce our ability to respond to the needs of the day, and we do not intend to do so."

The Kew Foundation has been established to seek sponsorship, and a Friends of Kew organisation will in time attract a membership of 35,000, each paying an annual subscription of £30 and receiving a number of benefits, including free admission to Kew and Wakehurst Place, in Sussex.

Regular visitors to Kew Gardens will be able to purchase an annual season ticket for £12.00, and there will be reduced admission prices for senior citizens and students.

As Kew's chairman says "Kew is committed to providing the public with excellent value for money. Nor will we allow the pressures on public spending to prevent us from expanding our programmes of work to meet the needs of the developing world. We believe that Kew's public will understand and continue to come to Kew in increasing numbers."

PROJETO NORDESTE — LOCAL PLANTS FOR LOCAL PEOPLE

Sustainable Development of Natural Plant Resources in Northeast Brazil

Projeto Nordeste is a new multidisciplinary research programme between Brazil and the Royal Botanic Gardens, Kew. Based on 16 years of highly successful collaboration it represents a financial investment by the Royal Botanic Gardens, Kew and Brazilian counterparts of over £2.5 million.

The new programme, planned for a minimum of ten years, seeks additional funding of £3.5 million for the first five years.

The nine states of Northeast Brazil have the greatest diversity of forest ecosystems of any comparable region of Brazil. The forests of Northeast Brazil rank as high in importance to Brazil as the Amazon Forests.

Projeto Nordeste is composed of two main components:

1. Discovery, conservation, selection and trial of local plants of potential economic and environmental importance.

This is a field-based programme, run by a team of botanists, ethnobotanists, ecologists and agronomists. It will target indigenous species which can be used for:

- rehabilitation of degraded forest ecosystems,
- repair of marginal non-forest land,
- multipurpose crops.

2. Synthesis of information on regional plant diversity.

This field and herbarium-based programme acts as the data source for the first programme and will:

- interlink Brazilian and international research centres holding information on plant species of Northeast Brazil,
- create an integrated computer database of indigenous plants of Northeast Brazil,
- provide a baseline for environmental impact studies,
- provide state and regional floras and popular publications on indigenous plants.

Long Term Benefits of Projeto Nordeste

Provide essential botanical information for the sustainable development of Agriculture, Forestry, Conservation, Pharmacology, Hydrology, Tourism, Horticulture, Urban Planning, Education and Rural Extension Services.

Contribute germplasm suitable for agro-economic development at the local level.

Lead to better resource management and land use which will stabilise regional population movements and reduce pressure on natural ecosystems in the Northeast and elsewhere in Brazil.

In October 1990 Kew experts Dr. Raymond Harley, Dr. Simon Mayo and Professor Charles Stirton attended a conference in Brazil looking at possible further collaboration in environmental programmes.

NEW £4 MILLION "LIVING SHOWCASE" FOR KEW — The Sir Joseph Banks Building

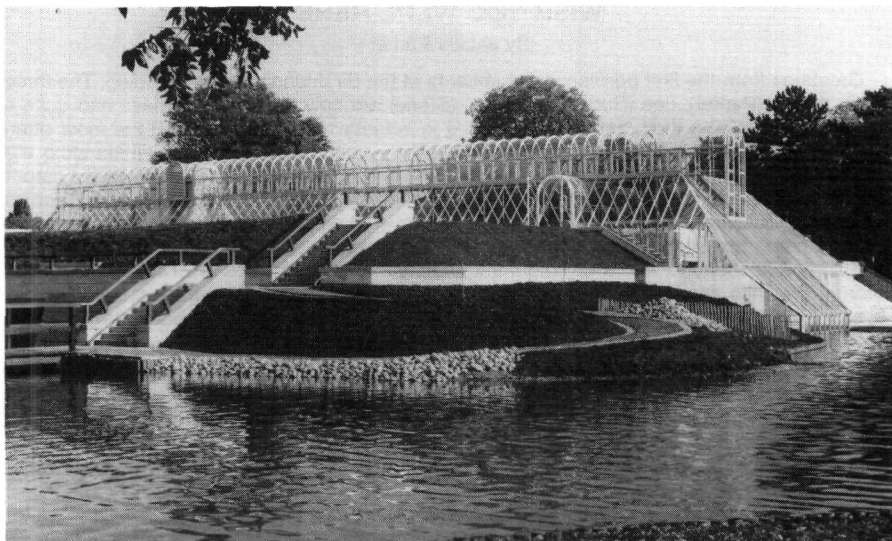
The Royal Botanic Gardens, Kew, home of one of the greatest collections of plants in the world, had a new attraction from March 1990 — a project which included a multi-media exhibition illustrating mankind's use of plants, and a home for Kew's outstanding economic botany reference collections and library.

One of the most ambitious additions to the gardens this century, the new building is named after Sir Joseph Banks (1743-1820) one of the great figures of British horticulture and botany, and the unofficial director of Kew before it became a public garden in 1840. It was opened on March 20th by H.R.H. the Princess Royal.

Situated in a three hectare site close to the River Thames, the single storey building, much of which is recessed below ground level, is partially covered with terraced roof gardens. A curved glass roof covers the concourse allowing a display of living plants within the building. The design was chosen from an entry of 270 for an architectural competition organised in 1982 by the Property Services Agency.

A feature of the design is its energy conservation; insulation is provided by the surrounding soil and, by means of an exchange of heat with ground water, the building is kept warm in winter and cool in summer. Levels of humidity and light are controlled to protect the collections and to provide a comfortable atmosphere for visitors.

Two large lakes, linked by a cascade, are other features of the site, and inside, around and above the building the planting theme is "Plants for People", consisting of plants used for food, medicine, shelter, clothing or decoration.



The Sir Joseph Banks Centre for Economic Botany. The upper lake, flanking the main entrance on the right.
(Property Services Agency, March 1990)

The first exhibition in the Sir Joseph Banks Building, "The Thread of Life", showed how a single plant product, cellulose, has been used by mankind over the past 6,000 years or more.

By the skilful use of innovative audio visual techniques, the audience is shown the importance of careful management of plant resources to provide for future needs.

This first exhibition was staged by staff of the Royal Botanic Gardens, with design and construction by Event Communications Limited and financial support from Courtauld and *The Daily Telegraph*.

THE NEW KEW

By Professor Ghilleen T. Prance, Director of the Royal Botanic Gardens, Kew

The study of underexploited, useful plants has been an important part of the research programme of the Royal Botanic Gardens, Kew since its inception. During the last 150 years, we have gathered together a remarkable collection of artefacts made from plants. The opening of the Sir Joseph Banks Centre for Economic Botany will give a further impetus to our work on useful plants at a time when there is a growing need for such research to find sustainable alternatives to environmental destruction, particularly of tropical rainforests and for arid regions.

The new building will enable us to re-organise and house our economic botany collection properly so that it becomes more readily available for research and exposition. It will also enable us to stage modern exhibitions about many aspects of the ways in which humankind depends upon plants. The building expresses our total commitment to the mission of the Royal Botanic Gardens, Kew to the better management of the Earth's environment through increasing knowledge and understanding of the plant kingdom. This building, with its earth-shelter insulation, incorporates contemporary methods of energy saving and thus proclaims that we are practising environmental stewardship, both here as well as in the tropical countries where we carry out so much of our research on useful plants.

As an economic botanist, who has spent considerable time studying the potential uses of Amazonian plants, I am delighted that the Royal Botanic Gardens, Kew will now have the most modern centre of economic botany from which our work can go forward into the 21st century.

WISH YOU WERE HERE

By Jackie Panter

Greetings from the first permanent inhabitants of the Sir Joseph Banks' Building. The three J's — Jackie (Panter), Joe (Ruddy) and John (Stone) are now installed. We have had quite a few visitors satisfying their curiosity as to what is actually in this building, but the most often asked question is "What's it like in there?". Well it's quite reasonable, notwithstanding the extreme fluctuations in temperature and the pathetic dried corpses of earthworms on the carpet and those trapped in the thermal break of the glass surrounding the 'patio with pond, nettles and chickweed garden'. When it rains heavily we have an ample supply of wastepaper bins in which to catch the drips, we have a carpet with the aforementioned earthworm motif and we have a bijou kitchenette with a dry-mounting machine to put our cups on. The doors all have different squeaks and locks, so every morning and evening there is a chorus of 'clink' (the keys), 'clunk' (the locks) and 'eeeeeee' (the doors), all this makes us feel rather like wardens in the Tower of London or some other high-security establishment.

What is most noticeable is the quiet, broken only by the musical warble of the incredibly high-tech telephone (10 lines, 32 extensions), the equally tuneful moaning of the wind and the occasional 'plop' of an earthworm leaping into the great unknown. This building has many nicknames — 'Banks' Bunker' being the most common; my contribution is 'The Tomb with a View' but the latest offering is from Joe — 'The Compost Heap with Windows', any further suggestions are welcomed.

Visitors are also welcome, guided tours are given twice a day, but please phone first. Entrance is free but any donations for our 'Give an Earthworm a Decent Burial' fund will be gratefully received.

(Kew News No. 1 1990)

THINGS HAVE HAPPENED AT KEW IN 1990!

THE SIR JOSEPH BANKS BUILDING, opened in March 1990, houses a 20-minute multi-media exhibition on mankind's use of plants, a concourse planted with some of the most important plants used by mankind and Kew's outstanding economic botany reference collections and library. Situated on a three hectare site close to the River Thames, the building is recessed below ground level, is partially covered with terraced roof gardens and is surrounded by extensive landscaping, including a lake.

THE PALM HOUSE has been entirely rebuilt at a cost of £8 million and was officially opened by Her Majesty Queen Elizabeth the Queen Mother on 6th November. The whole house is now a single climatic zone — the steamy world of the tropical rainforest — with plants grouped into geographical regions.

THE VICTORIA GATE VISITORS' RECEPTION CENTRE, now under construction, will greatly ease entrance for the public and include a lounge displaying information about Kew and its work and a new shop with an improved range of books, gifts and prints.

Other work has included the refurbishment of the Kew Gardens Gallery which shows some of Kew's outstanding collections as well as exhibitions of work by contemporary botanical artists. Kew Gardens' other art gallery, devoted to the work of Marianne North, has also recently been restored.

WHEN THE WORLD OF NATURE WAS UNTOUCHED KEW GARDENS AND THE TRAVELS AND PAINTINGS OF MARIANNE NORTH

Few visitors to Kew Gardens are prepared for the surprise of the Marianne North picture gallery. The building, with features of a Greek Temple, was deliberately placed well away from the main gate and the fashionable areas. Often it is the thirsty and weary who stumble upon it in their quest for refreshment which is available nearby.

Those who climb the few steps are astonished to see tier upon tier of brightly-coloured paintings of plants, landscapes, birds, animals and insects. In all there are 832 paintings, completed by one woman in 13 years of travel around the untouched world of the mid-1800s.

The story of that woman, her travels and how the paintings came to be at Kew is told in *Marianne North at Kew Gardens* by Laura Ponsonby, published by Webb and Bower in association with the Royal Botanic Gardens, Kew, to coincide with the centenary of Marianne North's death. The book contains 130 paintings from the gallery, restored in 1989 with the help of Consultant Surveyors, Valuers and Estate Agents, Goddard & Smith.

The author, Laura Ponsonby, has been a guide/lecturer at the Royal Botanic Gardens, Kew, for 20 years, and has made a special study of the life and work of Marianne North. A preface to the book has been written by the Director of the Royal Botanic Gardens, Kew, Professor G. T. Prance.

Marianne North at Kew Gardens was published on 30th August at £15.95.

NEWS FROM THAMES WATER UTILITIES LTD.

21st June 1990

What the Hosepipe can't do, the Watering Can Can!

Over-watering can damage your garden, warn the experts at Kew Gardens.

So to help gardeners, Thames Water has joined forces with the Royal Botanic Gardens, Kew, to launch a campaign along with a leaflet written by the Royal Botanic Gardens called 'Watering Your Garden — the Good Kew Guide'.

"At Kew, we are keenly aware of our water use", said Charles Erskine, Assistant Curator of the Gardens.

"Conservation of water is important, but health of the world-famous outdoor gardens and greenhouse plants comes first. Fortunately, we have discovered that the two aims often complement each other. We whole-heartedly support this initiative by Thames Water."

The leaflet gives practical tips on lawns, such as, frequent, shallow watering encourages the roots to seek the surface; lawns should also be watered in the coolest part of the day; cut little, but often; trimming the grass to no less than 1¼ inches leads to a bushier, dense and springy lawn that crowds out weeds.

Advice is also given on the watering of garden plants, shrubs and trees, potted plants and herbs.



Mr. Peter McIntosh, Director Water and Environmental Science, Thames Water Utilities Ltd.

NOTES FROM WAIMEA ARBORETUM AND BOTANIC GARDEN JUNE 1990 VOL. 17 NO. 1

These were received from Keith Woolliams (1963), Editor and Vice-President Director. "Notes from Waimea . . . is sent gratis to any part of the world upon request." A labelled and documented collection of plants for aesthetic, educational and scientific purposes . . . a living gene pool for future generations. 59-864 Kamahameha Highway, Haleiwa, Oahu, Hawaii 96712 — Ed.

OPERATION POPEYE — SAVING THE ST. HELENA OLIVE

By Andrew Jackson (Wakehurst)

The St. Helena Olive is one of the rarest and most endangered trees on earth. To the best of our knowledge there is only one wild plant clinging to the precipitous slopes of Diana's Peak. Indeed it was thought to have become extinct until it was discovered in 1977 by the St. Helena Botanist Mr. George Benjamin. For over 100 years this unique tree could only be enjoyed as dried specimens in museums or in the early written records of the island. Imagine the feeling of excitement George must have had when he discovered a botanical treasure that was thought to have been lost forever.

Although known as the olive its fruit has a hard outer shell, a woody inner coat and three small, tough, shiny black seeds. Certainly not worth eating especially as the entire yearly harvest may amount to only one or two pods. In fact the St. Helena Olive is not related to the edible olive and has no close relatives at all. The nearest plant in the same family bears little or no resemblance to the unique St. Helena Olive.

After its discovery many attempts were made by George to take cuttings (slips). Since 1984 over 350 have been taken with only one success from a batch of 95 cuttings taken in 1986. This cutting is now a young tree 1.5m tall and is flowering in Scotland Nursery. All subsequent cuttings have failed and the wild olive is now in such a poor state of health that all future attempts to propagate the olive will be made on the young tree. Last year George collected a few of the rarely set seeds from the wild olive. Two germinated and are now over 15cm tall. This makes a grand total of four plants, a little better than one but not enough to secure its future which is hampered by three problems:

1. The wild tree is in a poor state of health.
2. Only one in 350 cuttings has been successful.
3. Seed is rarely found and even then it can be infertile.

It was for these reasons that in April 1989 Vince Hart, Director of A. & F., sent urgent messages to Kew and the World Wild Fund for Nature (WWF) to help save the wild olive and unravel the mysteries of its propagation. WWF continued its valuable support for the Island's plants and sent £2,000 to Kew to sponsor my visit. Collaborative research commenced immediately between A. & F. and Kew and by June 1990 two of Kew's senior scientific staff had discovered some vital information.

From cuttings cultured by Dr. Fay ten different fungi were identified by the C.A.B. Mycological Institute one of which is known to kill many plants. Three other fungi were also found but could not be identified. This has helped us to understand why the wild olive is in poor health and why the cuttings sent to Kew always rotted. Dr. Owens found that the olive's flowers apparently have a "contraceptive" stopping the male pollen tubes reaching the female egg cells by making them lose their sense of direction. The fact that no contraceptive is 100% effective explains why a few seeds are produced each year. Interestingly, the "contraceptive" is normally a defence mechanism stopping in-breeding and the chance of genetic diseases occurring. However, when there's only one plant left the defence becomes a reproductive strangle-hold. The "contraceptive" is controlled by genes, as is the colour of our hair and eyes and therefore, all that we can hope for is that when the young seedlings flower they have a slightly different genetic makeup and can breed freely with their parent wild olive.

The valuable research at Kew has helped to ensure that my short visit to the island during October has been maximised. For example, due to the "contraceptive" device over 600 pollinations were made knowing that 99% could fail. Also the problem with fungal contamination of the cuttings has led to the use of a number of fungicides and antibiotics to reduce the risk of the cuttings rotting in transit to Kew. More surprisingly, especially to the Senior Medical Officer, I requested the use of a sterile room in the hospital to take cuttings for Kew. It may sound strange but the cleaner the cutting is taken on St. Helena the more chance it will have of reaching Kew alive.

In addition to our attempts to propagate the olive I have tried to learn as much as possible about the wild plant before it inevitably dies. This work has included trying to identify its oil

requirements and any insect, plant, beneficial bacteria or fungi associated with the olive. The most important of these factors is the identification of the pollinator and its needs. This is essential because without a pollinator there will be little or no chance of natural seed formation on plants re-introduced into the wild.

George and I have also carried out telescopic surveys of the central peaks. Although these have been unsuccessful there could still be another olive up there and a helicopter survey presents the only further practical means of searching. Perhaps a future Naval visitor will oblige?

In conclusion, without George's discovery none of this work would have been possible. It is a tribute to George Benjamin, Vince Hart and the support of everyone in the A. & F. Department, the World Wide Fund for Nature and Kew that the St. Helena olive has not been allowed to quietly die forever. With further hard work and a bit of luck the olive may one day form large naturally reproducing populations in the wild. St. Helena's rare plants need all the help we can give them, after all it is the human race that has unwittingly pushed them close to extinction.

(*St. Helena News* 26.10.90)

THE BIALOWIEZA PRIMEVAL FOREST — NORTH EAST POLAND

By Paul Longden

The Bialoweiza Forest is situated on the border between north east Poland and the Soviet Union (Bielorussia). It is the biggest expanse of woodland in the central European plain, covering a total area of 1,250 km² (580 km²) in Poland. Due to its location (on the border of central and eastern Europe), the Forest expanse is situated in a region where the distributional ranges of many plant and animal species end, and is in the catchment area of the Baltic and Black Seas.

The hydrogeological conditions existing here have created two biotypes:

- i) Forest and Dry Ground Forest with ground water at 1-4 m deep.
- ii) Alder carrs and Marsh Forest.

These conditions support a wide variety of forest habitats and phytosociological communities.

The soil is predominantly sand and post glacial gravels with scarce deposits of dune sands occurring at the southern boundaries.

The continental climate here is characterised by long periods of snow cover (min. 92 days), a shorter vegetation period (185 days) and severe winters (mean temperature -4.3°C). Considering these severe climatic conditions, this temperate forest provides a suitable habitat for many plant and animal species.

The flora includes — vascular plants (1,000 spp.), Lichen (200 spp.), Bryophytes (254 spp.) and fungi (1,430 spp.). Of the 26 tree species, **Picea abies**, **Pinus sylvestris**, **Quercus robur**, **Tilia cordata** and **Carpinus betulus** dominate the Forest. The habitats here have provided favourable conditions for the development of many magnificent trees which have attained great heights. Some notable examples include **Picea abies** 55 m tall and **Quercus robur**, **Tilia cordata** and **Fraxinus excelsior** all exceeding 40 m in height.

The fauna amounts to over 8,800 species consisting of mammals (62 spp.), birds (228 spp.), reptiles (7 spp.), amphibians (12 spp.), insects (8,500 spp.) and fish (24 spp.).

The king of this jungle is the European Bison (*Bison bonasus*), an enormous yet passive beast which has found its last and only retreat in the Bialowieza Forest. During the First World War these creatures were nearly eaten to extinction by starving soldiers. However, due to a remarkable restitution programme during the 1920s, the number of Bison now stand at 250, roaming freely in the Forest. Another rare creature found here is the strong and stumpy Tarpan Horse (whose bloodline is traced back to the original steppe horse); another animal saved from near extinction. Other inhabitants include Wild Boar, Elk, Beaver, Lynx and Raccoon Dog.

Walking through this forest was an unforgettable experience. This trackless wilderness of huge trees forming a dense canopy, encloses a green-shadowed world of soft earth, lush vegetation and fallen, moss-eaten tree trunks. This Forest of primeval origin, teeming with life and so magnificently preserved is not only unique but truly awesome.

This visit to Białowieża was part of an extensive six week study tour of the major botanical gardens of Poland. In all six botanical gardens, three arboreta and three national parks were visited in the cities of Warsaw, Lublin, Krakow, Wrocław and Poznań. All these botanical institutions are involved with the conservation of threatened native plants, currently standing at 3,230 species.

The study tour took place during July and August 1990, and was funded by a David Dalziel Student Travel Scholarship.

THE LIMBE BOTANIC GARDEN AND RAINFOREST CONSERVATION PROJECT — MANGROVE SWAMPS TO ALPINE SENECIO'S

By Tim Upson

Standing on the sea front in the town of Limbe in South West Cameroon, the aroma of freshly caught fish fills the air, along with the shouts of the fishermen trying to persuade the 'rich' white man he has the best fish in town and to part with an exorbitantly large amount of money. However, nothing can detract from the view as you look out to a peninsula covered in rainforest, the emergent trees silhouetted against the skyline. Islands are dotted about in the bay, these being dwarfed by the mighty peak of Fernando Po, an almost perfect volcanic cone rising to 3,090 m, 60 miles out into the Bight of Biafra.

One of the main attractions in town is the Botanic Gardens, founded by the Germans in 1892 and shortly to celebrate its centenary. Originally planted to grow and trial new economic plants it is now the centre of a joint project between the British Overseas Development Administration and the Cameroon Government, with the R.B.G. Kew providing technical assistance. This is not the first time Kew has been involved with the Gardens. It was visited by the Director, Sir Arthur Hill, in 1920 who was impressed by the remains of the German garden. This led to the appointment of a Kew officer, T. D. Maitland, as Superintendent. Following a period of neglect another Kew trained officer, J. T. Swarbrick, was appointed in the 1950s and revived the garden, developing a collection of tropical fruit species.

Around Limbe grows rich Lowland Rainforest, in parts degraded, but still with significant areas in a pristine condition. Along the coast are large tracts of Mangrove swamps, but behind the town rises Mt. Cameroon, the highest mountain in West Africa at 4,090 m. It is unique as it offers an unbroken altitudinal profile of lowland rainforest into montane forest and beyond into savanna grassland and finally afro-montane communities, characterised by alpine Senecios. There are 45 endemic species of plants and animals recorded from its slopes. This site is seen as being so biologically important that it is proposed as a World Heritage Site.

These very different habitats are to be conserved by two reserves and along with the garden constitute the main core of the project. Importantly this is one of the few projects that puts into practice what many people have been saying for too long — the botanic gardens are ideally placed to play an important rôle in conservation, particularly in the tropics.

The Gardens

At present the gardens cover an area of 48 hectares, situated on the coast overlooking the Bight of Biafra. The gardens are intended to fulfil several important rôles; science, amenity, education and conservation. It will be the public face of the project and a base for visiting scientists.

The western half is dominated by an old volcanic core, Bota Hill. Its seaward side is protected by a sea wall offering superb views out into the bay and surrounding headlands. The planting theme will be entirely of Cameroon plants, grown in their natural habitats. Plantings will include Lowland Rainforest, Gallery Forest, Swamp Forest and the creation of a lava flow habitat. The Black Mangrove, *Avicennia nitida*, has already established itself behind a breach in the sea wall, with its own community of crabs and mud skippers.

The Western half of the gardens consists of an area of flat lawn planted with many palms and trees and a smaller hill called the SDO's Hill. A fine German colonial house situated on top of

the hill, offers views over the town of Limbe. The hill will be planted with educational displays to show such things as economic plants and animal/plant interactions. A display of Bananas and Plantains has recently been planted to show genetic diversity within this group. The lawns will each have a theme planting such as a Pan-African Palm collection, exotic fruit species, medicinal plants and amenity plantings of ornamental species.

One of the main features of the garden is a large open air amphitheatre called the Jungle Village, used to hold cultural events. The highlight this year was the visit of the Prince of Wales, the arena being filled with people and traditional dancing taking place in the centre — a truly spectacular site. Offices including a herbarium are situated in the centre of the gardens. The River Limbe, which runs along the northern boundary, offers a superb focal point and occasionally Mt. Cameroon can be seen peering through the clouds.

Much work has now been completed in clearing previously overgrown areas and erecting a fence to secure new plantings. Many of the workers are good farmers but training in many aspects of horticultural practice is required, a rôle in which I was able to help. Training included planting techniques, plant record keeping and chainsaw use. Many plants were propagated this year for planting new features and this offered a good opportunity to teach new propagation methods. Traditionally cuttings were typically taken from woody stems and branches which could be several inches thick. On introducing the softwood cutting they swore they "would never germinate". After correcting them on this we ran a trial from which I eventually won several beers!

The Reserves

From a scientific and conservation view the reserves are the most important part of the project. The Etinde Reserve covers about one third of Mt. Cameroon, an area of over 300 sq. km, from the summit of Fako peak at 4,095 metres down to the 200 metre contour. Included in the reserve is Cape Debundscha, the second wettest place on earth, with an annual rainfall between 12 and 15 metres! Visiting this place is like having a shower and bath at the same time. Unique plant communities can also be found on some of the lava flows that run down the mountain, the reserve encompassing the 1928 and 1982 flows. The summit of the mountain is a desolate place of volcanic lava covered only in mosses and lichens, but just occasionally green patches occur where steam still vents.

The reserve takes its name from an old volcanic core, Mt. Etinde, which rises to a height of 1,713 metres on the western slope of Mt. Cameroon. It also offers one of the most interesting walks in the reserves. Chimpanzees can often be heard as you climb and scramble along a hunters trail that leads to the summit. Thickets of *Cyathea manniana* make spectacular sights while the bright orange flowers of *Scadoxus cinnabarinus* brighten the dark forest floor. Impatiens, of which there are numerous species, are common, some of which we now hope to cultivate as ornamentals in the garden. Caulifery is very common in the tropics and perhaps one of the most unusual examples is *Omphalocarpum elatum* in the Sapotaceae. Fascicles of flowers are borne all the way up its trunk (which can be 30 metres high) and are followed by flat circular fruits 30 cm in diameter which clothe the trunk giving it a most bizarre appearance. The rind of the fruit is extremely hard being impregnated with silica. I was able to get numerous sparks when trying to open a fruit with a machete.

Near the summit you enter an enchanted forest of dwarfed trees clothed in ferns and great cushions of mosses and lichens. Amongst the moss can be found exquisite epiphytes such as the tiny *Utricularia mannii* with yellow flowers and the rare *Impatiens grandisepala*. This is a tuberous species surviving the dry season buried in the moss, emerging during the rains to flower and fruit. On reaching the summit it is traditional to perform a libation with the local guides. This is a form of communion with their ancestor. You are obliged to bring a spirit of some sort, a drop of which is poured over a stone and the rest passed around everyone. We took gin on this occasion — but forgot the tonic!

To the south of Limbe lies the Mabeta-Moliwe Reserve sandwiched between oil palm and rubber plantations. Although it has been logged over it still contains some areas of pristine forest including Mangrove and Pandanus swamp. One of the few emergent trees to have

survived the loggers is **Lophira alata**, the Ironwood. Fortunately the extremely hard wood proves too much for most chainsaws. The other emergent tree to survive is **Ceiba pentandra**, the Kapok, partly because its wood is not valued but mainly because they believe the tree contains the spirits of dead people.

It is hoped that the forest can be enriched by replanting with economic timber and fruit species, which would also act as a living gene bank. Already several nurseries have been established to grow the necessary plants to do this.

This project is unique and exciting in both its inception and situation in an area of global importance. To fulfil its great potential it both needs and deserves the support of such institutions as the Royal Botanic Gardens, Kew.

(In our Events of 1988 Journal, p. 756, Nigel Hepper also gave us a valuable look at these gardens — Ed.)

CHANCE OF A LIFETIME

By Jonathan Allin

During September of last year I had the opportunity to follow up an offer of a lifetime. The Tom Arnold Bursary funded my trip to Greece to study the feasibility of starting a nursery on the Island of Evia. The Island is situated north east of Mainland Greece. It is connected via a small road bridge at Evia's capital, Halkida.

The chance to start the nursery arose from working for the Noel-Baker family at their home, Achmetaga Estate, in previous summer vacations. It was upon my last visit that the Noel-Bakers suggested starting my own business, to supply nursery stock to the surrounding villages and possibly market goods in Halkida and Athens.

It all sounds rather idyllic to be true . . . The purpose of my visit was to substantiate the possibilities of such a venture. I should keep in mind that this type of lifestyle might not be all that it is cracked up to be — the Ouzo sometimes confuses the brain! The visit has now formed the basis for my third year management project.

There were many factors to be considered. What will I grow? Where will it be grown? And most importantly, who shall the produce be sold to? The list goes on and I must admit seems very daunting.

The Estate is undergoing a period of change. The ownership of the forest is disputed by the Greek authorities, the local population advocates strongly the expropriation of the estate. The land is now unused and not managed. However, the Commission of the European Community have just completed a final report on the establishment of a Nature Park and a Botanic Garden to be included in this area. This will coincide with the start of my nursery.

Two areas for the proposed nursery were assessed. The first area, the Leondari, situated opposite the main entrance to the estate, once the site of a tree nursery, approximately two acres. The second a larger site, the Bottom Paddock, which backs onto the main Procopi to Mandoudi Road. Those of you who have seen the film "Jean de Florette" will understand the practicalities of having a good supply of water! The Leondari has an adequate supply although the Bottom Paddock requires a bore hole for constant and reliable water source. Both sites have definite advantages and disadvantages. After much debate it was decided to utilise the Leondari, as less capital expenditure would be required, and should make the basis for testing the market potential.

Trying to establish the market potential of the business is not as easy as it might be in England. Even after a great deal of investment on market research in the end there is still the inevitable risk factor. Trying to eliminate cost on market research and the undoubted confusion often encountered with Greek bureaucracy, I visited the American Farm School in Thessalonika. Demetri Litsas, a grower and secretary for the local cut flower market, was extremely helpful. On his advice I visited garden centres and market stalls in Procopi, Halkida, Mandoudi and Athens. Talking to the locals confirmed my opinion that the demand for good quality plant material is high . . . something different perhaps!

Finally whilst in Athens I took the chance to call in at the British Consulate to ask about starting my business . . . "No problem. I'll see you again when you come to register your nursery."

If all goes well the plans for the nursery will proceed and I shall take up residence in September 1992. Finance is the main hurdle to overcome, as well as the inevitable language classes.

THE INSTITUTE OF ECONOMIC BOTANY AT THE NEW YORK BOTANICAL GARDEN

By Terry C. H. Sunderland

During the months of June and July of last summer I had the good fortune to undertake a period of study at the above Institution followed by a hectic study tour of the United States. I also had the fortuity to be eligible for an air pass (for a price equivalent to one internal flight) that allowed unlimited stand-by air travel during my stay. Hence, not only did I visit and study at the I.E.B. but also Harvard Botany Libraries, the Gray Herbarium, Missouri Botanical Garden and Space Biosphere Ventures in Arizona, Arnold Arboretum, the Isabella Stewart Gardiner Museum and Gardens, Mount Washington National Park in New Hampshire, the Saguaro National Monument, the Desert Museum and the Grand Canyon National Park (the last three being in Arizona). In all I visited 15 cities on 20 flights and clocked up 50,000 air miles in the process!

The stimulus for this trip stemmed from participation on an Operation Raleigh expedition to Panama in 1988 where I was fortunate enough to be involved in a project studying the ethnobotany of the Guyami Indians, anthropologically one of the most stable tribal groups in Latin America. It was the first time I had travelled to the tropics and to witness on one hand one of the most botanically rich environments in the world and the interaction of the indigenous population within it, and on the other, the vast tracts of land that were being "developed" and subsequently denuded seemed an inherent and moral paradox. The illogical nature of tropical deforestation and species destruction ran in complete contrast to the Guyami attitude to their environment; that it is not an infinite source of economic exploitation but a potentially finite resource to be revered, treated with respect and care, and in the case of the Guyami, even worshipped. Thus I have become very interested indeed in the conservation of the tropical forests and in particular studying and identifying alternatives to deforestation; that is, sustainable economic development.

Much of the present-day research and study into tropical forest dynamics and conservation biology is being undertaken in the United States and it was the aim of this tour to visit and study at the I.E.B. and the other major tropical research institutions, gathering information both for the Royal Botanic Gardens, Kew; reporting on the methods, strategy and practicalities of tropical research, and for myself; researching further into the Guyami ethnobotany and gathering information for two papers for submission for the Kew Diploma.

The I.E.B. was founded in 1981 by Professor Ghilleen Prance who subsequently became its first Director. Initially set up in response to meet the critical nutritional and energy needs of an expanding population by identifying new forms of food and fuel, the I.E.B. has broadened its sphere of research and through its aim to find botanical solutions to human problems, it has led to the concentration of its studies towards the relatively new science of ethnobotany (the study of indigenous peoples uses of plants). However, emphasis is given to those plants and peoples predominating in the tropics, as these areas are currently at the most risk from denudation, where 70% of all plant species originate and where the potential for greater botanical discovery is enormous. The Institute's study focuses mainly on the Neotropics concentrating mainly on Amazonian plant resources. Scientists at the Institute concentrate their research efforts in four principle areas; food, energy, medicine and conservation.

Food: with over 90% of the world's nutrition coming from fewer than 20 major crop species, this lack of genetic diversity and variability means that the world's food supply is highly vulnerable to disease, blight and drought. Thus the Institute seeks to identify and increase the stock of plants

available as sources of nutrition. For example, Dr. Steven King in his doctoral dissertation, identified two Andean tuber crops particularly high in starch; Oca (*Oxalis tuberosa* L.) and *Tropeaolum tuberosum* L. Both plants are currently being field-trialled in Peru, under the auspices of the I.E.B. and show considerable promise for possible widespread cultivation. Field trials are also occurring in North America and Europe, including the Henry Doubleday Research Association in England.

Energy: with many sources of fossil fuels likely to be depleted by the middle of the next century, the Institute is trying to identify plants that can provide renewable energy substitutes and to develop their potential.

Medicine: nearly half of all prescription drugs used in the West originate in plants. However, with the destruction of natural habitats, numerous species already utilised for medicinal purposes by local cultures are fast disappearing. We may each day be losing a potential cure for cancer or even AIDS with each plant that becomes extinct. The I.E.B., through its study of ethnobotany, is trying to locate and study tropical plants as sources of new medicines.

Conservation: because of the accelerating destruction of tropical forests, it is essential to establish a balance between conservation and utilisation of natural ecosystems to preserve biological diversity. This is arguably the most important rôle of any conservation-minded organisation; to investigate the use and management of local plant resources, to preserve germplasm of the plant species it studies and to use the data for the conservation of natural ecosystems is the culmination of all previous study and surely the primary goal of tropical conservation. This also must be the most difficult aspect of conservation management and is possibly why (arguably) tropical conservation is not really proving effective to date on a practical level. The political and social barriers to such conservation efforts seem to be enormous and to persuade governments to adopt western conservation plans must be an awesome task, though one which, I am sure, the I.E.B. is taking in hand.

The I.E.B. does not solely concentrate on identifying plants and cataloguing their uses. For example, Dr. Christine Padoch, an anthropologist whose research on economically promising fruit species is based in the Peruvian Amazon, has also studied the ecology, production, uses, propagation and marketing of these fruits; an important aspect if conservation study is to mean anything at all. This proves that an inter-disciplinary organisation such as the I.E.B. is essential if botanical research is to lose its highly esoteric and perhaps outdated image and to be able to provide suitable and feasible alternatives to destruction. For any kind of sustainable development management plans to occur at all in the tropics, ecologists, botanists, anthropologists, sociologists and economists must all work together, otherwise all the valuable field research undertaken will remain in journals, periodicals and lengthy monographs of no *practical* use whatsoever. I believe that this is what makes the I.E.B. so unique and enables it, as an organisation to utilise its field work in a practical manner. To be able to walk through the offices and talk, not only to botanists and ecologists, but to hear the anthropologists point of view was truly enlightening. Many scientists have been criticised for their rather unhelpful attitude toward students, yet in New York, most of the office doors were open, the scientists were more than keen to discuss their work and did not mind the intrusions and intellectually mediocre questioning of an ill-informed, yet keen, student.

The funding of a particular scientist's research is not, as is the case at Kew, based upon a salaried, permanent post. Each scientist has to rely upon grants and fundings allotted to his or her particular field of research, i.e. the scientist has to raise his/her own funding for periods of study and to make provision for his/her own salary. As an example, one research associate told me that he sometimes spent as much time writing application letters for funding as he did writing up research results. This obviously is the result of differences in funding (Kew is, in the main, Civil Service funded, whilst the I.E.B. receives no direct Government funding and relies upon bequests and grants) and due to this the scientists at the I.E.B. are very dedicated indeed. Access to all facilities is 24 hours and the facilities are used 24 hours. It did seem that each scientist had a very high turnover of work and this shows in the publication success of the Institute. Although this kind of funding process is no doubt difficult and in many ways frugal,

it does allow for greater flexibility of study. For example, I was told that if a scientist wished to undertake a project overseas for a period of time and could raise the adequate finances, then it would be possible to undertake the research as long as it was beneficial to the Institute. Very few requests of this type were refused. Although, as anywhere, the I.E.B. did not have as much financial backing as it would like, the morale of the Institute as a whole seemed very high and each person working there was very excited about the work being undertaken.

Many of the scientists are visiting lecturers to Universities and Colleges e.g. Yale, CUNY and the Institute runs a Doctoral programme in Economic Botany and Systematic Botany in collaboration with Lehman College, CUNY. Also the scientists are involved with other conservation organisations and are present on steering groups and other consultative panels.

As is probably evident, I thoroughly enjoyed my three weeks at the Institute. I managed to complete a lot of my own work and enjoyed hearing about other peoples; especially as they were so keen to share their knowledge. It was very interesting to observe an organisation so unlike anything in the U.K. and very enlightening, not only from a conservation standpoint but from an administrative one as well. The work being undertaken by the Institute is both relevant and highly inspirational, it is only a shame that their sphere of research could not be extended to include all tropical forest areas which are under threat and no doubt hold invaluable plant resources. However, the lack of adequate funding and manpower for such research is an understandable barrier to I.E.B. study in tropical Africa, Asia and the Far East. Nevertheless research into all tropical areas must be intensified before the denudational processes can be reversed and only an organisation such as the I.E.B., that has already proved effective tropical researchers, can undertake this seemingly infinite work. Now that an organisation solely devoted to economic botany has been proven a success it can, and should, be used as a rôle model for the founding of future tropical research organisations which are essential if we are to turn the tide of tropical deforestation.

I wish to thank the Kew Guild, the Bentham-Moxon Trust and the Hallet Science Fund for their generous financial support for this trip and would also like to extend my thanks to Professor Prance for his inspiration and enthusiasm.

CARNIVOROUS PLANT CONSERVATION IN S/E U.S.A.

By Madeleine Groves

As the recipient of the Hoselock Prize, a student travel scholarship awarded annually on the Kew Diploma, I travelled to Atlanta, Georgia, U.S.A., with the objective of studying the conservation of carnivorous plants endemic to the southeastern states of America.

My trip involved researching the plants in a botanical, commercial, and field setting, whilst being based at Atlanta Botanical Gardens and working in co-operation with the Fuqua Conservatory Superintendent at the gardens, Ron Determann.

Apart from housing an impressive collection of *Nepenthes*, the gardens include an outdoor bog garden, where native carnivorous plant species and hybrids are on public display.

Carnivorous plants are potentially an attractive and profitable commodity, fetching as much as £17.50 for a *Sarracenia* specimen in England. Although my trip did not allow for more time to investigate the status of these plants in American horticulture, I did visit World Insectivorous Plants (now renamed Carnivorous Plant Nurseries), at Marietta, Georgia.

The wholesale nursery, which covers approximately one and a half hectares, grows a wide range of carnivorous plant species and hybrids propagated from stock beds, and grown on in plastic polytunnels (17 metres x 4 metres), which can, for example, hold up to ten thousand *Sarracenia* specimens.

A trip to the University of North Carolina, Charlotte (U.N.C.C.), to visit Dr. Larry Mellichamp (resident Professor of Biology), provided me with an opportunity to study their collection of *Sarracenia* hybrids. From this collection it was possible to determine which inherited parental characteristics would prove beneficial in commercial horticulture. For example, *Sarracenia alata* x *Sarracenia leucophylla* produces two flushes of pitchers in one growing season.

To view the plants in the wild, I travelled with Ron Determann on a four day field-trip through Georgia, Florida, Alabama, and Mississippi, assessing the size of existing populations (in particular *Sarracenia* species and hybrids), and the condition of old and new habitat sites.

The overall message was one of immense habitat destruction due mainly to land conversion to pine monoculture. However, many botanists, including Dr. George Folkerts of the Department of Zoology-Entomology, Auburn University, Alabama, believe the demise of *Sarracenia* populations can also be attributed to the harvesting of the pitchers for the florist trade in America and abroad (*Sarracenia leucophylla* being the main species harvested). The reduction in the size of rhizomes and the number of insects captured, the decrease in the population size of other *Sarracenia* species growing in the cropped areas (e.g. *Sarracenia rubra* spp. *wherryi*), increased soil compaction, and the resulting decrease in seedling growth may place too great a strain on populations already under stress from habitat destruction.

In many cases poachers may devastate whole fields of *Sarracenia* by harvesting every pitcher found, but in the case of one family business I observed in Alabama only one pitcher was hand cut from each plant, although, in the case of *Sarracenia leucophylla* the two flushes of pitchers per season allowed for two harvests.

More research is necessary to establish the long term effects of these activities. However, the continued maintenance of these areas, due to regular burning by some harvesters, has been beneficial to the plants survival. Making the bogs commercially viable may prove to be one method of conserving them, and I am returning to America in 1991 to continue my studies on this subject, and assist in building-up the vital data needed by conservation organisations and botanical institutes, who wish to assess the status of these plants in commercial horticulture and the wild.

THE LAND OF KIWIS AND TREE FERNS

By Alison M. Bowles

On completing the Kew Diploma Course in September 1988 I embarked on a study tour abroad. I was fortunate to have some money from the Kew Guild to help with my expenses while I was in New Zealand. I had decided to travel to New Zealand in order to visit their National Parks and gain a better knowledge of their native flora, especially the ferns. I had contacted Kewite Ian McDowell at Pukekura Park and he very kindly put me in touch with horticultural groups throughout New Zealand. I was therefore able to see much of both North and South Islands.

I arrived in Auckland at the end of January, able to enjoy the end of an antipodean summer. I visited Graham Platt's Nursery; where he operates an interesting concept in marketing for a retail nursery, as none of the plants are labelled. The idea is that customers have to ask for advice and therefore go away with a plant likely to do well in the position they have described in their garden. This was a good introduction for me to New Zealand as he specialises in natives, paying particular attention to the provenance of his stock plants. He then kindly showed me around the Waitakre Cascade Falls Park, in a range of hills very close to Auckland where many New Zealand natives can be found, including the famous Kauri, *Agathis australis* which was heavily felled for its strong timber in the nineteenth century. This was also my first chance to see some New Zealand tree ferns in their native habitat, such as *Cyathea dealbata* and *Dicksonia squarrosa*.

I travelled from Auckland to Nelson via the Wellington-Picton ferry, watching dolphins as we entered Marlborough Sound. Many people I spoke to throughout the country complained about the gorse which had been introduced from Britain, originally for use as a hedge. It thrived in the southern climate and has now naturalised; I particularly remember the hills around Marlborough Sound being a vivid yellow.

The journey from Picton to Nelson took me across the Richmond Range where I saw *Nothofagus* woodlands for the first time. In Nelson I stayed with members of the Nelson Fern Society, who were most helpful, taking me to a number of locations to see filmy ferns and also

to some local private gardens owned by fern enthusiasts. They were able to supply me with some filmy ferns which I sent to Kew. I also gained my first experience of public speaking when I gave a talk to their Society about Kew Gardens.

I continued through South Island to Dunedin. Travelling by coach I was able to appreciate the countryside, crossing over the Lewis Pass and then descending to the vast and parched Canterbury Plain. I gave a second talk at Dunedin Botanic Garden to their Society which had been modelled on the Kew Mutual Improvement Society. A large proportion of the audience were students who seemed very interested in Kew's work.

Then on to Te Anau and the beginning of the famous Milford Track, a three day hike in a World Heritage Park, crossing the Mackinnon Pass and eventually descending to Milford Sound. This was a wonderful way to appreciate the vegetation which luxuriates there with an average of six to ten metres of rain a year. We began walking through *Nothofagus* forest, with many ferns in the understoreys. As we climbed the beeches became smaller until *Hoheria* was the dominant plant, then we came to the alpine area and found *Ranunculus lyalli*, *Celmisias*, *Aciphyllas* and low growing *Hebes*. Descending to the wetter western side of the pass I saw filmy ferns really at home, and wonderful specimens of *Leptopteris superba*.

I then continued my journey by heading up the West Coast to Greymouth. Numerous *Metrosideros* spp. in bloom way up in the tree tops added vivid splashes of colour to the roadside. The New Zealand train service has a limited number of routes, but the Trans Alpine Express Service to Christchurch had been recommended to me as it passes through spectacular mountain scenery.

In Christchurch Pamela Gibbons, an ex-Kew student, and her husband put me up for a few days. She had kindly arranged for me to be shown around Christchurch Botanic Gardens and Christchurch Parks and Recreation Department both of which were very informative. The Botanic Garden has a distinct English feel to it from the nature of its plantings. I also contacted another Kewite, John Taylor, and was able to spend an evening with him.

I now had to make my way to Hawera, in the North Island, to give a talk to Hawera Horticultural Society. My hosts in Hawera were members of the Society and had lots of local horticultural contacts, I was therefore shown around many gardens. They are close to New Plymouth and took me to Pukeiti Rhododendron Trust, nestling between the Pouakai and Kaitake Ranges which provides the site with an excellent microclimate. We also visited Pukekura Park where I met Ian McDowell and George Fuller who very kindly showed me around. They have an unusual fernery which had been hollowed out of the volcanic ash so that you walk through a narrow tunnel entrance. The ferns certainly seem to enjoy their surroundings. While in the area I visited Duncan and Davies Nurseries and saw their propagation houses and packing shed.

Then on to Tauranga and my last talk, where I stayed with the Secretary of the Bay of Plenty District of the Royal New Zealand Institute of Horticulture. This is a major centre for Kiwi fruit growing so I enjoyed looking around an orchard and a packing plant. They look so rampant, with foliage spreading everywhere.

Then to the East Coast and Napier where I stayed with David Lowe and his family for a few days. They had been suffering a drought so when, on my arrival, it rained they were all very happy. Unfortunately it was wet for much of my stay in Napier. There is a wonderful avenue of Norfolk Pines along the promenade. Despite the damp and rather cold weather making me feel rather at home one look into the gardens and the sight of *Tibouchina*, *Hibiscus* and *Bougainvilleas* all thriving told me definitely this was not England.

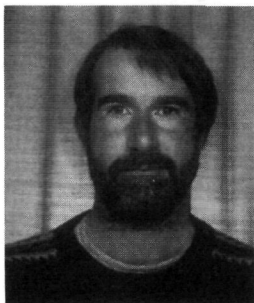
I was then able to meet up with Alice de Nys, who had been an international student at Kew while I was on the Course. We were shown around the Otari Open Air Native Plant Museum by the Curator, Mr. Ray Mole. This consists of 200 acres, much of it still native bush, in a cold valley on the outskirts of Wellington. Plants from throughout New Zealand are on display, such as *Griselinia lucida* and *Myosotidium hortensia*. His enthusiasm for the New Zealand flora made me feel very sorry to be shortly leaving it behind. I travelled up to Palmerston North with Alice and she showed me around the propagation houses at Massey University where she now works.

I was very fortunate to be able to spend this time in New Zealand where I met many interesting horticulturalists who willingly shared their knowledge of their native flora with me. I am grateful to the Kew Guild for helping to finance this trip.

BIRDS AT KEW IN 1990

By Rupert Hastings

The following account covers some of the more notable bird observations made at Kew during 1990. Highlights included a *Hobby*, eight *Woodcock* on one date, attempted breeding by *Herons* again, up to ten *Mandarins* at a time and a group of *Common Terns*. I am very grateful to Mike Maunder for some important observations, and also acknowledge the news supplied by Tony Kirkham and others.



Rupert Hastings.

Little Grebe: along the Thames there were six on January 2nd and five on November 20th.

Great Crested Grebe: at the Pond one pair lost their first two broods soon after hatching, then lost their third clutch when the low water level returned to normal and flooded the nest. A pair at the Lake lost their first brood but raised one young at the second attempt.

Cormorant: there were no high counts along the Thames but singles were back quite early on July 24th and 25th.

Grey Heron: early in the year two pairs nested at the Lake but no young were ever seen. In April a pair could also be seen at a nest on the edge of Syon Park, almost opposite Syon Vista; subsequent leaf emergence prevented further observations.

Mute Swan: up to three birds at a time occurred along the Thames.

Mandarin: now a regular visitor at the Lake, with up to ten birds in the autumn (in addition to Kew's pinioned birds).

Teal: the Thames by Brentford Ait remains a favourite site and there were typical peak counts here of 29 on January 17th and 21 on December 5th.

Mallard: breeds each year in the Gardens; on July 26th a female was with her eight small young on the little pond by the Princess of Wales Conservatory, attracting a close crowd of admirers.

Shoveler: remains a regular visitor to the Gardens with peaks of five at the Lake on January 2nd and 11 at the Pond on January 19th.

Sparrowhawk: a regular sight throughout the year; display flights were seen in spring and young were seen in summer but the location of the nest was not known.

Kestrel: a pair was seen mating on Brentford Ait on April 25th and a young bird was noted in summer near the Water Lily House.

Hobby: a grounded adult was picked up by the Lake one day in summer; it was taken to Wakehurst Place where it recovered completely and was later released. This is the third record for Kew Gardens.

Woodcock: no less than eight were flushed by Mike Maunder in the Queen's Cottage Grounds one day in February.

Herring Gull: single adults of yellow-legged race were by the Thames on July 31st and August 13th.

Common Tern: seven flew up river past the Herbarium on September 7th.

Feral Rock Dove: a large flock of 110 was feeding on grass seed in the Rose Garden on November 20th.

Stock Dove: up to two in July and August.

Ring-necked Parakeet: some 20 to 25 birds again roosted at the Lake in the later part of the year.

Tawny Owl: two young near the Water Lily House provided definite evidence of breeding. At either end of the year, two adults could be seen regularly near Brentford Ferry Gate.

Swift: the first bird was on May 4th.

Kingfisher: during the autumn one flew past the Banks Building, one was perched at the Aquatic Garden on two mornings and two were together at the Lake.

Lesser Spotted Woodpecker: the rarest of the three woodpeckers, singles occurred near the Herbarium in January, February and September but I know of no other sightings.

Swallow: one flew past the Herbarium on May 1st.

House Martin: the first two were over the Main Gate on April 24th and the last two were over the south end of the Gardens on October 11th.

Meadow Pipit: singles were seen in flight on the typical dates of March 28th, September 11th and October 22nd.

Grey Wagtail: regular along the Thames and occasionally inside the Gardens; three, one singing, were at the Herbarium on October 10th.

Redwing: numbers were very poor with no more than three on any date.

Blackcap: up to four males sang in the Queen's Cottage Grounds and one at the Rhododendron Dell between April 23rd and July 18th. A transient bird sang near Hanover House on May 31st.

Chiffchaff: an early bird sang near the Broad Walk on March 19th and one was near the Duke's Garden on March 20th and 26th. Between April and June two males sang in the Queen's Cottage Grounds and one in the Rhododendron Dell.

Willow Warbler: four singing males were widely spaced in the Gardens between April 23rd and 26th.

Long-tailed Tit: seems to have increased, perhaps as a result of three consecutive mild winters. Four different groups were seen on December 4th.

Jackdaw: singles over the southern part of the Gardens on April 26th and October 11th.

Chaffinch: 15 by the Water Lily House on November 20th.

Greenfinch: 20 near the Pond at sunset on January 3rd.

Redpoll: just one, over Kew Green on June 4th.

Bullfinch: pairs were seen occasionally and a probable family party was in the Queen's Cottage Grounds on July 18th.

In addition to the above wild birds, the tame drake *Pintail* was again along the Thames in the autumn and the Lake attracted a *Shelduck* in December and a fine male *Red Shoveler* (native to South America) on November 27th.

NEWS OF KEWITES AT HOME AND ABROAD IN 1990

Compiled by WINIFRED WORTH, SYLVIA FITZGERALD and HUGH FLOWER

Phil Wood of Wanneroo, Western Australia sent news of **G. H. Addison** (1938) now living in Darlington, Western Australia. He retired as Curator of the Singapore Botanic Garden in 1958/59 and has written two books on orchids. After retiring he lived in Britain for ten years. Then he and his wife joined their children in Australia. He is currently interested in cacti, an interest begun during a student year in Berlin Botanic Garden in 1936-37.

In June 1990 **Dr. Robert Ailkin** (Research Fellow on database design in the Computing Section at Kew) went to Cuba for the 5th Latin American Botanical Congress where he co-ordinated a workshop on microcomputer databases in floristics. In July he accompanied Bill Loader (q.v.) and Gren Lucas (q.v.) to a meeting about computer aspects of the Species Plantarum project in St. Louis, Missouri, and in September he visited the University of Davis, California for an N.S.F. workshop on Artificial Intelligence in systematics. He also visited the California Academy

of Sciences, Panama Conservation Data Base project and the New York Botanical Garden before returning to Kew.

Susyn Andrews, (Gardens Verifier in the Herbarium), attended the I.C.N.C.P. at the Horticultural Congress in Florence in August where she and other members of HORTAX outlined the proposed revision of the International Code of Nomenclature for Cultivated Plants 1980.

In March 1990 **Margaret Appleton** left the specimen-mounting team of which she was a member since 1986. We wish her every success in her new post.

Mike Arnold-Gilliat, (Administration), retired and is enjoying his leisure.

Congratulations to **Sandy Atkins** (Herbarium) on her promotion to Scientific Officer.

Kew's Deputy Curator, **Ian Beyer**, has had an even more varied year than usual, including judging outside exhibits at the Gateshead National Garden Festival, arranging workshops for Kew staff on their conservation-related activities, and seminars on the question of exploiting plant resources which other countries consider to be theirs, and on genetic diversity in living plant collections. As Chairman of Kew's Events Committee, he was deeply involved in the Christmas festivities, and stood in for Santa-Claus when Barry Blewett had flu. Attendance at the Grotto was about 2,000 (as in 1989) despite the entrance charge going up to £3.00 for adults. Kew Rotary Club (and Richard Ward) provided hot chestnuts, the profit being used to sponsor an intern from Eastern Europe in 1991.

Dr. Peter Brandham, Susan Holmes (q.v.) and Professor Len Newton of Nairobi went to Tanzania to collect and had a very successful expedition there. Peter continues to teach genetics to the second year students.

Congratulations to **Diane Bridson** (Herbarium) on her promotion to Principal Scientific Officer.

Dr. Dick Brummitt (Herbarium) spent 12 days in Malawi in June working with a team from W. S. Atkins International (Epsom) on a survey for the C.E.G.B. of a site in the north of the country where uranium has been found.

In June **Dr. Martin Cheek** accompanied Nigel Hepper (q.v.) to Limbe for the annual Steering Committee meeting of the Cameroon rainforest conservation project.

Mark Coode (Editor of the Kew Bulletin) left for Brunei in March 1990 for a month's collecting mainly of *Elaeocarpaceae*. He was accompanied by Andrew McRobb (q.v.) and Sarah Oldridge (q.v.). In August Mark attended the 9th Meeting of the Willi Hennig Society in Canberra and gave a paper on the biogeography of the *Elaeocarpaceae* to a meeting of the Australian Systematic Botany Society.

During April 1990 **Frances Cook** took part in an expedition to Botswana with Janet Terry from Wakehurst Place Seed Bank.

From the middle of March 1990 **Dr. Tom Cope** (Herbarium) spent four weeks in Cairo and two in Kuwait working on Egyptian and Arabian grasses. In September Tom attended the Third Plant Life of South West Asia Symposium in Berlin.

At the end of September **Jill Cowley** (Herbarium) joined an expedition to Yunnan, China, hosted by the Institute of Botany, Kunming. She visited the Cangshan Mountains (Dali), the Yulong Shan (Lijiang) and Chungtien Plateau areas.

Dr. Phillip Cribb (Herbarium) attended The World Orchid Conference in September, held in Auckland, and the Australian Native Orchid Conference at Wollongong, New South Wales.

Mary Dawson (Library) gave a paper to a Library Association meeting on conservation literature and its use.

Congratulations to **Dr. John Dransfield** (Herbarium) on receiving the New Englerian Medal in July for his monographic study 'Genera Palmarum' on which he worked with Natalie Uhl. In May John spent a week advising the Commonwealth Development Corporation on their new rattan plantation in Sarawak, and in June he spent two weeks at Cornell University, U.S.A., on the cladistics of palms. He then went on to Hawaii for the International Palm Society's Biennial Conference. In early August John and his wife, Soejatmi, both presented papers at the conference.

on Bornean Rain Forest Biology in Sabah after which he continued with his rattan consultancy for F.A.O. at the Forest Research Institute of Malaysia in Kepong.

We welcome **Keith Duffy** who joined the Palynology Unit in April 1990 as an Assistant Scientific Officer.

A warm welcome to **Philip Eckersley** who joined E.C.O.S. as Scientific Officer in April 1990 to work in the Conservation Unit.

Kate Edmondson (Library) was appointed Senior Paper Conservator in April, succeeding Vicki Humphrey who returned to Australia in 1989. Kate has conserved and mounted all the Kew orchid drawings and exhibits at the Sainsbury Gallery in Norwich and organised the refurbishment of the Library's floras during the summer. This project was funded by a private trust. She has also been responsible for the care of the Margaret Mee drawings.

Greetings were received by Winifred Worth at Christmas from **Mary and John Ewart** (1937) who now live in New Zealand. They had hoped to visit England this last year, but managed only a return visit to Singapore where they had lived for about 20 years.

At the invitation of Aarhus University and the Royal Danish Academy of Science **Dr. Keith Ferguson**, Deputy Keeper of the Herbarium, gave some lectures and tutorials on comparative pollen morphology and systematics in September.

A strong interest in improving access to horticultural information was evident at the World Congress of the International Association of Agricultural Librarians and Documentalists in Budapest, attended by Kew's Librarian, **Sylvia FitzGerald**. Delegates from tropical countries were very keen on the potential of CD-ROM for information storage and retrieval and many were already using such discs regularly.

John Flanagan (Deputy Librarian) was married to Anne Woodward (Personnel) (q.v.) on 20th July 1990. We offer them our congratulations and best wishes. John also attended the C.B.H.L. meeting in Phoenix, Arizona, and gave a paper on managing collections of periodicals.

In March 1990 **Pat Halliday** retired after 43 years of devoted service to the Herbarium. We wish her all happiness in the years to come.

David Hardman (1977) is now Parks Services Manager with Trafford Metropolitan Council. He was formerly Horticultural Manager with Stockport Metropolitan Council.

Congratulations to **Madeleine Harley** (Palynology Unit) on her promotion to Senior Scientific Officer from January 1990. In September Madeleine presented a paper at the 8th Simposio de Palinologia, Asociacion de Palinologos Espanoles in La Laguna, Tenerife.

In the spring of 1990 **Dr. Ray Harley** (Herbarium) spent four weeks in the U.S.A. mainly working on *Hyptis* and chasing Pico das Almas records for the Florula. In June he attended the 5th Latin American Botanical Congress in Cuba.

In June 1990 **Laura Hastings** (E.C.O.S.) visited Strasbourg to attend the first International Congress on Ethnopharmacology.

In early March 1990 **Nigel Hepper** lectured on plant conservation at the 2nd Rangeland Management Conference in Kuwait and held a seminar on West Africa at the University. In July he attended the Steering Committee of the Cameroon rainforest conservation project at Limbe. In October his latest book "Pharaoh's Flowers: the botanical treasures of the Tutankhamun" was published by H.M.S.O.

Dr. Nicholas Hind was promoted to Higher Scientific Officer. We offer him our congratulations.

Susan Holmes, Dr. Peter Brandham (q.v.) and Professor Len Newton of Nairobi went on a very successful collecting expedition to Tanzania.

We are very sad to report that **Professor R. E. Holttum**, an Honorary Research Fellow in the Herbarium, died on 18th September at the age of 95. We shall all miss him very much but feel privileged to have had one of the greatest taxonomic botanists of the century with us for the last 35 years. In April Professor Holttum had presented to the Herbarium 125 half-plate glass negatives of the vegetation of Disko Island and Naiguah Peninsula in Greenland which were taken while he was there with Professor A. C. Seward in the summer of 1921.

Ian Hughes (1951) shared digs at Kew with Phil Wood, and called in on him about seven years ago when Phil was Manager of Wildflower Nurseries at Wanneroo and Kelmscot, Western Australia. Ian was then at the Parks Department in Fremantle, but has since moved on.

Vicki Humphrey (Library) returned to Australia in 1989 and was succeeded by Kate Edmondson (q.v.).

We welcome **Bob Johns** who, in August, joined the Herbarium staff as Head of the Fern Section.

Dr. Laurie Johnson, a former Australian Botanical Liaison Officer at Kew and for many years Director of the Royal Botanic Gardens, Sydney, visited Kew in July to look at *Juncus* and *Casuarinaceae* collections.

Dr. Thomas Laessle (Mycology Section), together with Dr. D. Pegler (q.v.) and Dr. B. Spooner (q.v.) attended the IV International Mycological Congress, Repensburg, Germany at the end of August. In September he attended the 10th Nordic Mycological Congress in Dalsland, Sweden.

We welcome **Dr. Greg Leach** who took up the post of Australian Botanical Liaison Officer on 3rd September.

In June **Gwilym Lewis** (Herbarium) attended the 5th Latin American Botanical Congress in Cuba and spent some time studying *Caesalpinia* in the field.

Bill Loader, Senior Executive Officer in charge of computers, attended a meeting about computer aspects of the Species Plantarum project in St. Louis, Missouri, in July, together with the Keeper, Gren Lucas (q.v.) and Bob Allkin (q.v.).

Due to the many important meetings held at Kew over the year, including the Scientific Review, **Professor Gren Lucas** made only one visit abroad in 1990, to Missouri in July. During the year he was awarded the Sir Peter Scott Medal for his services to conservation, after having served as Chairman of the Species Survival Commission of the I.U.C.N. for eight years. He was also awarded a medal by the S.A.A.B. in South Africa for his contribution to African botany.

We said farewell to **Dr. Terry Macfarlane** on completion of his term as Australian Botanical Liaison Officer in September.

Phil Wood sent news of **Ron H. Mason** (1964), Curator at Government House, Perth, Western Australia. He visited England a few years ago, found the traffic horrific and gladly returned to Australia!

Congratulations to **Noel McGough** of the Economic and Conservation Section on his promotion to Higher Scientific Officer.

Andrew McRobb (Senior Photographer) accompanied Mark Coode (q.v.) and Sarah Oldridge (q.v.) for a month's collecting trip to Brunei in the spring of 1990.

Dr. Simon Mayo (Herbarium) spent four weeks in Munich during August where he worked with Joseph Bogner on 'Genera Aracearum'.

Gwen Metcalfe, wife of **Dr. Russell Metcalfe**, a former Keeper of the Jodrell Laboratory, will be remembered by the numerous Kewites who came to her home at 35 Pensford Avenue, Kew, to attend meetings of the Music Circle. The Music Circle, initiated by Ted Storey, provided an opportunity to hear popular classical music on gramophone records. The early meetings were held in the Iron Room at Kew in the evenings when lectures were over, and it provided a very inappropriate atmosphere for the music of Bach, Beethoven and Brahms and many other classical composers. There followed a period of some 18 years during which successive generations went to the Metcalfes' home to attend the fortnightly meetings. Gwen kept a list of those who attended and she continued to be in touch with some of them long after they had left Kew. The meetings ended in 1969 when Dr. Russell Metcalfe retired.

Those who were members of the Music Circle will be sorry to learn that Gwen Metcalfe died peacefully in a hospital in Worcester on December 31st 1990. Gwen's association with Kew was a long one. She was a native of Kew and several previous generations of her family had lived in Kew or Richmond. Indeed her great grandfather was responsible for hand printing

and publishing 'Richmond Notes', which was Richmond's first local newspaper. As a child she played at making 'houses' under the weeping beech beside the Broad Walk at Kew. When slightly older she was caught playing hide and seek between the museum cases in what was then No. 1 Museum, and was, not surprisingly, chased out by the constable on duty! She could also remember the horse drawn trams that plied between Richmond and Kew Bridge.

We welcome **William Milliken** who joined the staff in April as an ethnobotanical consultant, with an initial four month contract, to write up results of his recent Amazonian research.

Until 1990 **Robert Mitchell** worked on the Sainsbury Orchid Conservation Project at Kew growing British Orchids, especially the rarer ones, from seed and reintroducing some to suitable habitats in the wild. He left in 1990 to set up a nursery in France. He has been succeeded by Margaret Ramsay, who has just completed her Ph.D. work on sugar beet at Nottingham Polytechnic.

Hilary Morris (Library) left in March 1990 to set up an information service for Friends of the Earth. We wish her well in her challenging and exciting new post. In November she had a baby son, Joseph. Our congratulations to Hilary and Dick.

Ted Neighbour (1957) wrote in May of his opportunity to take early retirement. He enclosed a resumé of his career originally prepared for the press. In 1946, when he was 14, he began working in local government. His apprenticeship, in West London, included two years National Service in the Royal Air Force. Then in 1955 Ted was invited to take a student's place at Kew which he readily accepted. The Kew years were followed by one at the I.P.R.A. College at Reading.

With academic and professional qualifications gained from various institutes, he entered the executive side of local government in 1958 in the Architect's Department of Derbyshire County Council. In 1960 he moved to Stoke on Trent. This was followed by a further move in 1967 to Liverpool Parks and Recreation Department, as Principal Assistant. A further move followed to the Design and Construction Division.

In 1972 Ted accepted the post of Deputy Director of Parks with Manchester City, finally moving to Tameside in 1973 as its first and last Chief Recreation Officer, because the department was latterly amalgamated with 'Libraries and Arts'.

Ted now lives in Glossop in Derbyshire, where we hope he will have a long and happy retirement.

Congratulations to **Sarah Oldridge** (Herbarium) on her promotion to Scientific Officer from January 1990. Sarah accompanied Mark Coode (q.v.) and Andrew McRobb (q.v.) on a collecting trip in March 1990 to Brunei. At the end of June Sarah transferred from the Herbarium to the Enquiry Unit of I.E.D.

John Norris (1946) and his wife, Mary, celebrated their Golden Wedding on 30th November 1990. They now live in Mechelen, Belgium, near their son. They have bought and restored a 200-year-old house, and after much tribulation (Mary's heart attack, lots of house repairs, difficulty in selling their house in England), all is well again. John is constructing an exact model of H.M.S. Black Prince, a 74-gun British battleship of c. 1813, using plans obtained from the National Maritime Museum, Greenwich. He is using boxwood and lime miniature planks, held in place by over 7,000 wood dowels 0.1 mm thick.

Patrick Nutt (1953) is at Longwood, Pennsylvania. He has been leading garden tours for Horticulture Magazine (U.S.A.). He brought a group to England in May, visiting the Chelsea Show, Kew, Wisley and other famous south of England gardens. He is President of the International Water Lily Society.

We welcome **Dr. Alan Paton** who joined the Herbarium staff in January 1990 to work in Dicots 2 primarily on *Labiatae*.

At the end of August **Dr. David Pegler** (Herbarium) attended the IV International Mycological Congress in Rejensburg, Germany.

The death of **Jessie Florence Pedgrift** occurred on January 2nd 1990 aged 97. It was during the Second World War that Jessie came to Kew working in the glasshouses until 1945, with her friend Violet Clark.

Violet Clark's death was recorded in the 1962 Journal and includes a photograph. Other references to the two ladies may be found in the 1945 Journal. Both ladies were landscape gardeners in Broadstairs during the years preceding the Second World War and returned there in 1945, somewhat reluctantly, until they settled once again. Jessie spent the last three years of her life in Perth, Scotland, with her nephew and his wife. Our thanks to Jessie's nephew, N. F. Pedgrift, for supplying us with this information.

We welcomed **Martin Pendred** in April 1990 when he took over the Administration of the Margaret Mee Trust.

Welcome to **Cheryl Piggott** who in June 1990 took over as Archivist in the Library.

Professor **G. T. Prance** (Director) attended the 5th Latin American Botanical Congress in Cuba from 24th to 29th June.

In February 1990 **Alan Radcliffe-Smith** (Herbarium) presented a paper to the Dr. R. R. Stewart Centennial International Symposium on the Plant Life of Southern Asia in Karachi.

James Redman (1941) has responded to the Editor's call for news of Kewites and we are glad to hear from him. He and his wife are enjoying their retirement, living part of the year in Lindsay, Ontario, and in winter in Florida, U.S.A.

After service in the RAF in the Second World War, Mr. Redman spent three years at Reading University on the first landscape architecture course taught there. He won his Diploma in Landscape Architecture, in addition to his N.D.H., Kew, and John Innes Certificates, all hard-earned over nearly seven years. From Reading, he went to the Royal Botanic Garden, Hamilton, Ontario, as Supervisor (later Superintendent), and was responsible for developing the Spring Garden and the Rose Garden. He initiated a plant breeding programme, especially for *Iris* and *Hemerocallis* and perennial asters (Novi-Belgii), some of which were later named, prefaced by the word Royal. He was also interested in annuals, and in testing new varieties for a commercial seed house, for longevity of flowering period, disease resistance, attractiveness etc. Mr. Redman was appointed an All-American Flower Trial Judge, holding the position for eight years until he left Hamilton in 1967.

In June 1990 **Dr. Paula Rudall** (Jodrell Laboratory) attended the 5th Latin American Botanical Congress in Cuba.

Tom Sargeant (1912) is now living in Haywards Heath and celebrated the centenary of his birth in May. He received flowers from Kew as well as congratulatory telegrams. After training at Kew, from February 1911 to October 1912, he moved to Carters Seeds, then in Raynes Park. From there Tom moved to Jackmans Nurseries at Woking where he stayed for 35 years until his retirement.

In August we welcomed back **Brian Schrire**, former South African Liaison Officer, who is working in *Indigoferae* for some months.

From the end of September **Dr. David Simpson** (Herbarium) spent seven weeks on field work in West Malaysia and Sabah, joining the Kew contingent in Brunei during October 1989. On 1st September David left for a six week collecting trip in peninsular and north east Thailand.

Welcome to **Dr. N. P. Singh** from Poona, who, in February was appointed Indian Government Liaison Botanist. He is working on *Clusiaceae*.

Dr. Brian Spooner (Mycology Section, Herbarium) was honoured by publication of a commemorative new genus near *Peziza*, *Spooneromyces* in the *Nordic Journal of Botany* in February 1990. In May Brian visited the University of Turku, Finland where he acted as official opponent to a thesis "A monograph of *Hyaloscypha* and allied genera" presented for the degree of Ph.D. and in August he attended the IV International Mycological Congress in Regensburg, Germany.

Charles Stirton, who has been Associate Professor of Botany in the University of Natal since 1988, returned to Kew in April 1990, with his wife Jana, to complete his account of

neotropical *Sophoreae-Leguminosae* and Jana to consult systematic and chemical journals. Charles was on a Krukoff Fellowship at Kew from 1982 till his appointment to Natal. We are pleased to welcome them back.

We are delighted to hear of the marriage on 15th December 1989 of **Sir George Taylor**, Director 1956/71, to Mrs. June Maitland. We extend to them our best wishes.

Peter Taylor received the Englerian Medal for The Genus *Utricularia* monograph.

At the request of former Guild Secretary Winifred Worth, **Percy Trevaskis** (1927) sent an interesting account of his career from his early training at Rosemorran, near Penzance, via two years and 12 certificates at Kew to the Imperial Bureau of Entomology at Farnham, where he was in charge of the host plants for control of insect pests in the Colonies. From there he went in 1929 to Melbourne, Victoria where at the request of Alfred Nicholas, inventor of Aspro tablets, he spent seven years creating the garden of this country estate. From pictures which Percy enclosed, one can see that this has grown into a magnificent estate worthy of a progeny of Kew. Later, Percy was responsible for the maintenance of Government properties and an advisor to the Victoria National Parks Authority. He was awarded the R.H.S. Victoria Medal in 1976. [Reader please note: we would like the story of *your* career too; please don't hesitate to write!]

We welcome **Lisa von Schlippe** who started work in Kew Record in September and helps Dr. Brummitt and Emma Powell with Chinese authors for the author index.

Richard Ward (1963) became a father for the second time on 2nd November when a second daughter, Catherine Sparkle, was born.

John Whitehead (1972) writes from Merrist Wood College, near Guildford, of his plant explorations in the colourful and dramatic Argentinian Andes and Tierra del Fuego. He next went to Eastern Australia and Tasmania and to the International Gardens Festival in Osaka, Japan, where they had trouble with Typhoon Flo! Christmas was spent in the sunny swamps of Botswana. He took measurements of the Baines' Baobabs; the big baobab at Victoria Falls was known to be 20 metres in girth; John's measurement on 2nd January 1991 was 24.3 metres girth, at 1 metre above ground.

We record the death in the autumn of 1989 of **Thomas Wiltshire** after a short illness.

Sadly Phil Wood reports that **A. S. Wilson** (1936) died in 1985.

In January 1990 **Jeff Wood** (Orchid Herbarium) spent a week in the Singapore Herbarium working on Malaysian Orchids in preparation for the revision of Professor R. E. Holttum's "Orchids of Malaya", after which he visited Indonesia to collect in the mountains of North Sumatra.

Anne Woodward (formerly Personnel) was married to John Flanagan (Deputy Librarian) (q.v.) on 20th July 1990. We wish them both many years of happiness.

"I KNOW THAT CUTTING DOWN TREES MEANS THE SOIL WILL BE WASHED AWAY, BUT WITHOUT FIREWOOD WE CAN'T COOK, AND IF WE CAN'T COOK, WE CAN'T EAT SO WHAT AM I TO DO?"

Tropical horticulturists are often more aware of the importance of trees to rural inhabitants than are their colleagues who live and work in more temperate climes. Shifting agriculture, involving felling and burning of all trees on fresh farming land, has been a standard method over vast areas of the tropics especially where soils are poor. It still is where the population is low enough for the practise to be sustainable. Timber for fuelwood and for house building is at hand, and erosion is no real problem.

Sadly, with population growth now often around 4% a year, environmental degradation rather than regeneration is becoming the norm. People have to go further and further to find trees for firewood, etc., especially around rapidly expanding townships. Flash floods and erosion tend to replace rain forests and perennial streams. Water supplies become increasingly unreliable,

famine replaces plenty, and aid agencies are besieged with pleas for help to dig wells, sink boreholes, and to send food to the starving. Was it the Romans who said civilisation finds a forest and leaves a desert . . . ?

However, many of you will be thinking and active in "agroforestry" methods. These are starting to be effective in countries like Haiti — for charcoal — Kenya, where the Council of Women is actively involved, and Malawi and Zambia with government tree nurseries. It seems the trick for success is that people planting and caring for tree saplings must stand to benefit personally in a fairly short time.

Lions Clubs International responds to appeals for help with water wells, eye camps, leprosy control, etc. Now Lions Clubs in Europe would like to encourage rural people in tropical/sub-tropical countries to plant (and to maintain to productive maturity) trees for firewood, building poles, wind-breaks, fruit, other "agroforestry" use, OR for nurseries to produce seedlings. Kew Guild members are requested to spread news of this scheme throughout the tropics. Better still, they are invited to take copies of the application forms for a U.S.\$ 250 'Tree Planting Package' with them wherever they go, and help suitable growers, schools, etc., and local Lions Clubs, to complete them. Please send s.a.e. to Lion Hans Plate, 53 Carbery Avenue, Bournemouth BH6 3LN (0202 422346): he will be pleased to help.

IF WE LOOK AFTER THE TREES, THE TREES WILL LOOK AFTER US.

KEW SALE OF RARE PLANT BOOKS

Where better to look for a bargain among rare and second-hand books on plants and nature than the Royal Botanic Gardens, Kew?

On 15th and 16th September some 25 booksellers set up their stalls in the Orangery at the Gardens for the annual Book Fair.

Last year, when the event attracted 20 dealers, one volume changed hands for £900.00.

Carl Shillito, Head of Retailing at Kew, said: "Our Book Fair has gone from strength to strength because most people who come to Kew have an interest in one aspect of nature or another, and mid-September is just the right time to buy a few books for armchair reading during the winter."

Entrance to the Book Fair is free for visitors to the Gardens.

OCCASIONAL PAPERS 4

Occasional Papers 4 was issued and received by the Editor in March 1990. This 66 page booklet gives a register of staff at the National Botanic Gardens, Glasnevin, Dublin 9, Ireland, from 1795-1945. The Director, Aidan Brody, advises that it is not for sale but available to botanical libraries and research institutes on an exchange basis. Scholars may also apply.

THE GREAT SUSSEX HURRICANE

By Eileen Florence Upton

Iminds the gale of 'eighty-seven,
Her didn't start 'til past eleven.
The wind it blew thro' the scrummocky trees,
The wires they hummed like a swarm of bees.

They hissed an' sparked with an eerie light,
I was afear'd at the 'orrid sight,
While all around the brick-bats flew,
With 'ere an' there a tile or two.

They chimney pots did 'it the ground
With a nasty sort of crunchy sound,
An' the "Blasted Oak" was blasted quite
With many others that dreadful night.

I was fair 'mazed when come the morn,
Whole woods cut down like swathes of corn,
An' what had allus bin afore . . .
Jest weren't no more.

Kindly sent in by Tony Schilling at Wakehurst Place, who suggests that it is to be read slowly in rustic Sussex accent if you want to get the right feeling!! (As if he'd know!) — Ed.

OBITUARIES

Compiled by Graham Burgess



Jean Margaret Brookes in the Bentham Moxan Trust Office at Kew.



C. E. Cherry, N.D.H., President of the Kew Guild 1975-6.

R. BINNINGTON

We sadly report the death in 1990 of R. Binnington.

He left Kew in 1924 to begin a long career in Parks, firstly with Richmond Parks Department and later in Manchester, both places headed by Kew men. After a brief return to Richmond he moved to Southampton where he was to stay for the rest of his career; firstly as Deputy and then as Director of this large department. He retired in 1963.

He was an active Kewite sitting on the Committee firstly in 1948.

We send our condolences to his family and friends.

JEAN MARGARET BROOKES

Jean Margaret Brookes passed away on 21st September 1990. A cough which developed only a few months before was the first sign of cancer.

She met her husband Stanley in the Ministry of Agriculture and Kew was fortunate to benefit from that part of their 50 year partnership devoted to the Royal Botanic Gardens, Kew.

Jean had a thorough systematic mind and she applied it both in her hobby and her work. At home she researched her family history right back to the Norman Conquest.

The photograph above shows her at work on behalf of the Bentham Moxan Trust. Through her efforts the value of this fund increased ten-fold. This behind-the-scenes work benefitted many, by providing opportunity where, without her, there would have been none.

The photograph of the students on the wall is a symbol of the creative continuity which flows from such work and which is the continuing life of Kew. Her retirement in 1982 gave everyone an opportunity to express their fullest regard and the Director made a special presentation.

The photograph we have chosen does not show her faithful collie, Lassie, who would visit staff at breaktime, but Lassie would certainly have been close by.

To her husband and lifetime partner, Stanley Brookes, we send our blessings and condolences.

EDWIN CHARLES CHERRY

We sadly report the death of Edwin Cherry, one of Kew's gentlemen.

He was born in the North in 1912. His first job was an apprenticeship with the Harrogate Parks and Gardens Department under the late J. G. Besant. In 1933 he moved as a journeyman gardener to Lowther Castle Gardens. Thirsty for knowledge he moved south to the John Innes Institute at Merton, at that time a hotbed for new experimental ideas on plant husbandry.

Edwin shared in the spirit of Kew before he left the John Innes Institute to take up his studentship for he joined a very colourful outing to Bodnant led by Rafill and Robinson.

In July 1936 he entered Kew. He was in digs with Noel Prockter (sadly deceased 1991). He excelled in his studies, gaining six distinctions. For his involvement with the Mutual Improvement Society he was awarded the Mutual Improvement Society Prize. His own lecture in February 1936 was on "Some significant horticultural experiments".

Edwin stayed at Kew after qualifying, working as a Foreman in the Flower Garden Department.

He had sustained his interest in Parks and prior to leaving Kew was elected a Fellow of the Institute of Parks and Recreation. In 1938 he left to take up the post of Deputy Superintendent at Alexandra Park, Hastings, Sussex. By this time he had gained his N.D.H. His boss there, Mr. Haig, died prematurely so Edwin soon had extra responsibility thrust upon him. As soon as the war was over he was officially appointed Superintendent.

A few years later he took promotion as Superintendent of Parks Leicester. In a Journal article in 1946/47 he wrote proudly of his new department.

In 1953 he moved back closer to Kew as the Superintendent at Sutton and Cheam Parks Department. In 1964, under the re-organisation of the London Boroughs, his responsibility was enlarged to cover the 10,732 acres of Sutton, Cheam, Beddington and Wallington.

In 1972 the Civic Society of Sutton and Cheam awarded him the Manor of Sutton Award for his contribution to the environment.

In 1975/76 he was elected President of his beloved Kew Guild.

After retiring in January 1978 he played an active part in Guild affairs being one of the early guiding lights to the Award Scheme. He was an amateur painter, thus especially deserving of the painting of *Paesia suffruticosa* by Mary Grierson, which he won in an Award Scheme raffle.

He was a Senior Circuit Steward of the Sutton Circuit of the Methodist Church and found his time filled with his hobbies which included British Flora and Archaeology.

He had four children and was fond of all children; one of my happiest memories of him being at the I.P.R.A. weekend when he carried my own on his shoulders. So there he was, as always, furthering the profession and supporting others whenever he could. The earliest photos at Kew show him impeccably dressed, a habit that made him stand out wherever he was.

To his wife and children we send our sympathy at their great loss.

THOMAS MACKIE COVENTRY

Thomas Mackie Coventry died on Friday 2nd March 1990 at the grand age of 90 years and four months.

He was born at Forgandenny, Perthshire, Scotland in 1899. His apprenticeship was near home in Rossie House Gardens. He learned quickly and moved to Lord and Lady Elphinstones Estate at Carberry Tower, Musselborough, near Edinburgh, where he was Inside Foreman. From there he moved to Yester House, Gifford, East Lothian (Marquis of Tweeddale).

He then migrated south to England to the estate of Earl Beauchamp. He stayed at Madresfield Court, Malvern, Worcestershire for two years before entering Kew as a Student Gardener in 1922.

He was offered a job at Kew at the end of his course but chose to leave for Manchester Parks Department, then headed by W. W. Pettigrew, another Kewite. After a spell at Alexandra Park he was put in charge of the construction of a new 33 acre park, Charlton New Park. On its completion he remained for another five years as its Head Gardener.

His next move was to Boggart Hole Clough, a large park where once a boggart haunted the deep natural valley. He planted thousands of trees and shrubs. In 1939 he became Superintendent of the Northern Group of Parks based at Brookdale Park, where he remained until 1945.

Thence to the seaside where he became Superintendent of Parks to the Borough of Lytham St. Annes.

The department had suffered neglect over the war years but Tom firstly rationalised the management structure and then installed new infrastructure such as extensive propagation and production greenhouses.

He retired in 1965 when he and his wife Grace moved to Northampton. They lived there until she passed on in 1987 after which he moved to Southport to be near his son, Alan, and his family.

He outlived many of his contemporaries but two other Kewites attended his 90th birthday. Ernest Chantler (Parks Director, Fleetwood) and Michael Lee (now Director of Leisure Services at Knowsley M.B.C., Merseyside).

He was very grateful for the gifts and greetings he received at that time through the Kew Guild Committee.

To his son, Alan, and family, who provided much of the content of this obituary, we send our commiserations.

NOEL PROCKTER

We have learned of the death of one of our Guild Past Presidents, Noel Prockter, on 11th January 1991. His obituary will appear in next year's Journal.

We extend our sympathy to his family.

T. WILTSHIRE

T. Wiltshire entered Kew from the Kings Acre Nursery, Hereford. Whilst at Kew he participated in Guild affairs. In 1925 he left Kew to become Assistant Superintendent at the Palace Gardens, Khartoum, Sudan.

By 1929 he was back in the U.K. working in the Parks Department at Walsall. He then moved to Gloucester where he stayed until the end of the Second World War.

In 1947 he moved to Cardiff where he took the post of Assistant Director of Parks. He was very happy there as right-hand man to his dear colleague and friend, W. Nemes. This long association of two Kew-trained men brought enormous benefits to Cardiff.

After retiring Tom kept a beautiful garden and involved himself deeply with horticultural affairs in Cardiff.

He passed away quietly after a short illness in the Autumn of 1989. I visited his family in Wales and the remaining memories are of his great enthusiasm for anything to do with plants.

We offer them our condolences.

KEW GUILD INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st DECEMBER 1990

INCOME

	31.12.90		31.12.89	
	£	£	£	£
Annual Subscriptions and Arrears	4,188.36		3,460.69	
Donations — General	1,160.00		75.45	
Donations — Award Scheme	297.00		838.50	
Tom Arnold Bequest	—		2,867.18	
George Catt Legacy	—		7,673.01	
		<u>5,645.36</u>		<u>14,914.83</u>
Dividends from Charities Investment Fund				
— General Account	1,094.10		996.77	
— Award Scheme	409.62		373.18	
		<u>1,503.72</u>		<u>1,369.95</u>
Bank Interest				
— General High Interest Account	1,279.05		313.42	
— Award Scheme High Interest Account	818.01		255.72	
— Charities Deposit Fund	1,963.45		1,615.84	
		<u>4,060.51</u>		<u>2,184.98</u>
Sale of Emblems	112.50		23.00	
Less: value of Stock Sold	(87.47)		(20.13)	
		<u>25.03</u>		<u>2.87</u>
Annual Dinner Receipts	2,141.50		1,930.65	
Less: cost	(1,895.11)		(1,774.91)	
		<u>246.39</u>		<u>155.74</u>
Award Scheme Soirée/Raffle	157.49		188.55	
Sale of Journals	9.00		93.00	
A.G.M. Tea	—		33.01	
Journal Adverts	—		595.00	
		<u>166.49</u>		<u>909.56</u>
		<u>11,647.50</u>		<u>19,537.93</u>

EXPENDITURE

Kew Guild Journal — Printing	3,407.00		3,692.86	
Prizes awarded by the Guild	168.00		258.00	
Honorary Officer's expenses	—		65.00	
Printing, Postage, Stationery	660.82		291.72	
Award Scheme Awards	1,350.00		800.00	
Insurance	48.47		13.75	
Bank Charges and Commission	442.30		241.41	
Smith Book Conservation	3,000.00		—	
		<u>9,076.59</u>		<u>5,362.74</u>
EXCESS OF INCOME		<u>2,570.91</u>		<u>14,175.19</u>

KEW GUILD BALANCE SHEET AS AT 31st DECEMBER 1990

	31.12.90		31.12.89	
	£	£	£	£
INVESTED ASSETS				
Charities Official Investment Fund				
— General Fund	4,000.00		4,000.00	
— Award Scheme Fund	2,000.00		2,000.00	
Charities Deposit Fund	<u>13,370.00</u>		<u>13,370.00</u>	
		19,370.00		19,370.00
CURRENT ASSETS				
Stock — Emblems	904.17		467.87	
— Past Presidents Jewel	400.00		400.00	
	<u>1,304.17</u>		<u>867.87</u>	
Bank — General High Interest Account	9,848.53		8,262.48	
— Award Scheme High Interest Account	6,825.54		5,518.57	
— Current Account	<u>753.02</u>		<u>1,511.43</u>	
	<u>18,731.26</u>		<u>16,160.35</u>	
LESS CURRENT LIABILITIES				
Life Subscriptions	<u>(135.97)</u>		<u>(135.97)</u>	
		18,595.29		16,024.38
NET ASSETS		<u>37,965.29</u>		<u>35,394.38</u>
FINANCED BY				
Capital Fund		35,394.38		21,219.19
Add Excess Income Over Expenditure		<u>2,570.91</u>		<u>14,175.19</u>
		<u>37,965.29</u>		<u>35,394.38</u>

Rebecca M. Bower
Hon. Treasurer

Audited and found correct M. A. Arnold-Gilliat
J. R. Woodhams
25th January 1991

Note: Many individual donations were made towards Guild funds this year, particularly as a result of our contact with life members and others. Their support both this year and in the future is appreciated. If donors specifically request in writing we will be pleased to record their names in future Journals.

DID YOU MISS AN OPPORTUNITY TO SELL YOUR PRODUCTS OR SERVICES THROUGH THE JOURNAL?

As your Advertising Manager for the *Kew Guild Journal* I am very pleased to report that we have raised £645.00 in advertising revenue. This is the highest figure attained to date and I hope it is just the beginning of what may be a growing part of our Journal. No small thanks are due to our hardworking Editor, Richard Ward, who also managed to cajole people into contributing.

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Lastly, I would like to thank all of you who advertised this year and hope that you will be kind enough to repeat your generosity next year. And, incidentally, we hope members will consider *supporting* our advertisers please?! And mention this Journal.

NOW IS NOT TOO SOON to start thinking about next year's advertisement and I invite you to write to me with your advert together with cheques payable to 'The Kew Guild' so that next year's response can be even greater.

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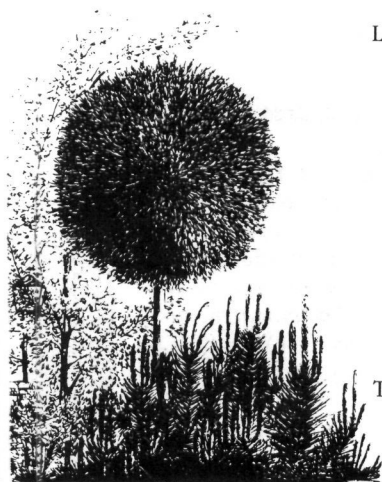
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