Moorea

Vol 12

The Journal of The Irish Garden Plant Society



NCCPG
National Conference
Belfast 1996

PREFACE FROM THE PRESIDENT

"AND NOW WE CROSS THE SEA"

It gives me great pleasure, as your President, to write a few words as a 'Curtain Raiser' to NCCPG's first ever National Conference to be held in Northern Ireland. The IGPS has played a prominent role in helping NCCPG to grow from the very beginning and we owe the Society and Dr Charles Nelson (late of Glasnevin) and Reg Maxwell (Belfast), in particular, a large debt of gratitude.

Now our eleventh AGM gives us the opportunity to meet many of them and tell them so on their own territory - and what a territory! Any NCCPG member who visited Chelsea last year will have had a whetted appetite to see some of the Irish Gardens by the superb display of plants on the IGPS stand, which deservedly won a Silver-Gilt Medal.

In Conference there will be many important matters to discuss, but I attach equal importance to the opportunities we shall have to exchange views and plants outside the Conference Hall. Sadly I cannot bring any of my cornus collection to Belfast but hope the photograph of *Cornus florida 'Rainbow'* will encourage some of you to come to Newby.

We have a fascinating programme ahead, intermingled with lectures from the experts, and I thank all those who have worked so hard to put it together. I look forward to meeting you and I wish you all a thoroughly enjoyable and successful Conference.

Robin Compton
President

CONTENTS

FINOLA REID	The Hidden Treasures in Irish Gardens	1
JIM REYNOLDS	Butterstream	3
PATRICK FORDE	Seaforde Estate	4
NIGEL MARSHALL	Mountstewart Gardens	5
SAM HARRISION	Castlewellan National Arboretum	7
MIKE SNOWDEN	Aspects of Rowallane Garden	9
REG MAXWELL	Belfast Botanic Gardens Park	11
GRAHAM PATTISON	National Collections to Date	13
PAUL HACKNEY	The Ulster Museum Botanical Collections	17
BELINDA JUPP	Plant & Garden Heritage in the North of Ireland	19
JOHN DUCIE	Book Review	20

Moorea 12 was edited by Reg Maxwell, Belfast Botanic Gardens.

SPONSORS: Belfast City Council, Ulster Museum, Northern Ireland Tourist Board.

Front Cover Photograph: Botanic Gardens **ISSN 0332-2273**

THE HIDDEN TREASURES IN IRISH GARDENS

by Finola Reid

The Great Gardens of Ireland Restoration Programme was conceived out of urgent cries for help from owners of historic gardens and demesnes in Ireland for help in saving or restoring many of the most important and significant features which are sliding into decay and ruin due to a number of causes and effects which I will try to explain in general terms later.

In Spring 1994 the Minister for Tourism and Trade, Mr Charlie McCreevy TD announced a unique new scheme for the restoration of privately owned historic gardens in Ireland. Owners who were already involved in full time tourism or those who would be willing to open to the general public, after restoration works were completed, were invited to apply for funding to this new scheme.

A Management Committee appointed by the Minister was given the task of establishing criteria by which each garden and its ownership would be deemed eligible and recommended for inclusion in the restoration programme. The role of the Management Committee is advisory and consists of representative experts and advisors from the Department of Tourism and Trade, the Office of Public Works, FAS, Bord Failte and private garden owners. The Chairman is Mr Jim Reynolds of Butterstream, a renowned modern garden in County Meath.

In August 1994 advertisements were placed in the national press inviting applications from owners wishing to undertake major restoration projects in gardens of national or international significance. A combination of media publicity and bush telegraph amongst the gardening fraternity soon generated several hundred enquiries for application forms and information sheets. Out of that initial flurry of excitement came a steady flow of serious and worthy applications for initial appraisal of their restoration projects.

Owners intending to carry out work and repairs to significant features and garden buildings or major tree surgery to conserve specimen trees and other plants which were steadily deteriorating or in imminent danger of decay, collapse or death would be the likely candidates for funding under this programme. Historical analysis of the site, garden archaeology to determine particular features, landscape survey and other specialist expertise would be encouraged to ensure an accurate justification and basis for a thorough restoration of any garden or landscape. In a nutshell sorting out all the problems and mysteries of a gardenís earlier history and getting on with the business of increasing visitor levels thus ensuring a safer future resulting from this injection of funding.

This is a significant move forward in our perception of what is truly part of our heritage. Historic gardens are now acknowledged to be major contributors to our ever rising income from visitors to Ireland who appreciate the wealth of history in old places and the wealth of plants which are still half hidden from view, partly undiscovered and waiting for rediscovery in an enlightened era of discovery.

All acknowledge the untapped tourism resource that is waiting to be exploited by the ever increasing appetite from visitors and gardeners alike for these uniquely Irish gardens and demesnes.

As a direct result of trawling in these gardens for historical features, mature plant specimens, old follies and other garden structures a surprising amount of previously unknown information is being uncovered, literally sometimes, under a canopy of weeds, brambles, broken glass, rubble and the silt of ages.

Massive specimens of trees have been noted and photographed for future reference and more detailed and perhaps more leisurely examination. Fine old plants of all sorts of genera, notable Myrtus, Rhododendron and other acid soil plants are being recorded from many gardens. Oak, Ash, Lime, Walnut, Sycamore, Yew and related species have been noted in the most unlikely spots. Two Podocarps of fine size and perfect condition are happily thriving in gardens in Mayo and Wexford. I suspect the Moores of Glasnevin came to visit both places. All of the *Trachycarpus fortunei* I've noted seem to represent situations in many parts of the country. Ubiquitous cordylines in todays modern gardens must be the direct descendants of earlier, just as ubiquitous specimens I've noted in several gardens. A huge specimen survives in splendid isolation in the middle of the formal garden layout in Kylemore, Co Galway, an undeniable reality for the sceptic who cries "there is no garden in Kylemore" or "there never was a good garden in Kylemore". The fools, the fools, they have not yet grasped the nettle of admitting that rare plants alone do not a garden make.

We have found follies a plenty - owners not excluded from this generalisation - we have inspected gentlemen's privies, marched along long forgotten paths to gazebos, teahouses, boathouses, struggled down embankments, fallen through historic holes and pondered upon them while the eyes focus on a distant vista which possibly has not been looked upon in quite the same way for perhaps a generation, excluding fox eyes, badger eyes and other custodians of these secret garden. We have savoured long forgotten chat, fruit, nuts, petals of Acca, beech masts and other cannibal delights. We have whiffed the fragrance of old roses, lime flowers along seventeenth century avenues whilst focusing on a long lost

spindle path or early canal. I found a herd of deer in Co Cork, direct descendants of the original deerpark herd of Castle Mary. Dovecotes, carp ponds, pidgeon parks give hints of glorious former days when landowners truly feasted their senses on all the fruits of their estates and their tenants rents. Cromwellian estates vie with early christian settlements for my unworthy attentions.

Yews, wonderful yews of immense girth and age surround one ancient garden in a puzzling jigsaw of hints and clues which eventually might point the way to a definite dating on these ancient walls. Remnants of old conservatories, fruit cages, lead cisterns, vineries, peach houses, boiler houses, bothies and bells ring up the ghosts of countless gardeners, garden boys, and ingenious owners who found ways of doing what some of us still can't do - (and is not even being taught yet in horticultural colleges) - the true history and understanding of gardens and plants in Ireland. We still study the English model and pride ourselves on having contributed William Robinson to the existing quotation that all good gardening must have been imported and that there is no Irish style.

Irish Robinsonian gardens are superb but that should not exclude the possibility that we are in the process of unearthing earlier models of perfection.

During the last 100 years in particular in Ireland many old places fell into ruin. Within old estates families feuded, squandered, went to war, and with it all lost their capacity to generate income from their tenanted estates. The Great Famine and the resulting social and political turmoil also intervened and ensured the old order would never quite return. Good landowners were lumped with the bad and during the early years of the new independent Ireland legislation aimed at levelling the playing field for all Irish citizens razed many significant old estates, demesnes and wiped out their gardening activities. Remnants of many of these old places can still be visited today, relicts of old decency with relict plants and features still not quite eradicated. They exist and must be preserved.

Failure to recognise the latent potential of these historic places gave rise to oppressive death duties, inheritance tax and land commission decisions which devastated old estates, carving them up into modern farming units and obliterating their original layout. Sad examples abound throughout the Irish countryside. Re-afforestation policies which went for the softwood quick option smothered ancient hardwood plantings and remnant native woodland which had survived in the protection of solid family estates.

The depressing picture is not quite complete however when one considers how many superb landscapes still thrive and whose plants flourish in splendid tribute to those absent friends and old neighbours. A cursory glance through the literature on Irish gardens and demesnes reveals a solid core of still intact properties whose owners furiously battle with limited resources and staffing, road development, modern housing trends, planning laws and the more traditional enemies of climate, disease and fashions (which in themselves are more than any garden owner can keep apace with and still keep smiling at the paying visitors).

Irish gardens are recognised by plantsmen and propagators as undisturbed repositories of plant material. Taxonomists marvel at the range and rearity of many of our plant collections, many of them originating from wild collected sources. Garden historians and landscape architects visiting Ireland are often stunned to find gardens here which have remained virtually unchanged from their original design and layout with only the passage of time and the ravages of climate sculpting their physical features. Other gardens have an incredible overlay of features dating from the pre-Christian period to medieval, to seventeenth century right up to the early twentieth century. Despite our torrid history many old gardens have been in continuous family ownership since the mid 1700's and this has been their salvation. Within these old demesnes the protection of strong families, Loyal to the current monarch - or Lord Cromwell when he imposed his political and religous stamp on Ireland - ensured that at least within these land boundaries and ancient walls great oaks thrived when all beyond were stripped out and used in the buildings which encapsulated the might of empire. Within these estates fine walls were built to enclose, protect, defend, insulate and isolate the favoured inhabitants from the wild Irish.

Fine trees were planted to establish shelter, to provide timber, fuel, profit and by the way the embellishment of the landscape, the status of the family and the reflected sense of civilised stewardship of this conquered land.

Along this long evolutionary path a style and philosophy of gardening evolved which has become synonymous with an exiled Irishmen, William Robinson. The Robinsonian garden with its wild romantic atmospheres, its intermingling of exotic and native species in seemingly untamed profusion reaches perfection in several Irish gardens. There are other older gardens which deserve greater attention from us now. We must act to save them before time runs out. This restoration programme is designed to do just that. There is space for all the wonderful diversity which is now emerging from this trawl in gardens and for their remnant plant collections.

Over a hundred and twenty gardens have been visited and reported upon to the Management Committee since 1st September 1994. Many of these owners are currently processing formal applications and will be undoubtedly successful recipients of considerable amounts of grant aid to enable them to carry out all the necessary work needed to bring their gardens back to pristine condition.

The decision to recommend any garden to the ERDF Board for grant aid is based on the detailed restoration project proposals and business plan which the owners of the shortlisted gardens are invited to submit to the management committee for its consideration.

There is provision in the fund for grant aiding essential new visitor facilities and for developing new features which are considered appropriate and

sympathetic - an example of this type of new feature might be the construction of a folly or the removal of an ill placed structure and its replacement with a more stylish eye-catcher.

Bord Failte, as administrators of the fund and investment advisors for tourism projects being considered for ERDF grant aid, play a vital role in the application process. The financial assessment and marketing strategy of each application is scrutinised and must be judged commercially viable before an application is presented to the ERDF Board for its decision. In the Shannon region this assessment is done by Shannon Development and the ERDF Board there.

The total fund is in the region of £4 million and is allocated on a 50/50 matched basis with the garden ownerís own capital input. Ongoing maintenance expenditure is not eligible nor is land purchase. The fund is dedicated to the capital costs of a restoration project.

The use of FAS Community Employment Schemes under professional horticultural supervisors are used with great effect to reduce the enormous costs of labour intensive restoration work. A financial valuation of the contribution from a FAS Community Employment Scheme in a garden project is used to reduce the garden owner's matching equity to a level of not less than 25%, using a percentage taken from the FAS input.

This enables the garden owner to benefit from the two sources of grant aid up to a maximum of 75% funding - the same level as ERDF funded projects in public body ownership.

Effectively the potential of this fund used in combination with FAS and garden owner's own capital input can achieve restoration works to a value in the region of well over £8 million during the next few years - a scenario much envied in other EU Countries who should follow the good example set here by both the last Minister and Mr Enda Kenny TD, the current Minister for Tourism and Trade.

The funding for this scheme is made available by the EU through the Department of Tourism and Trade under the OPERATIONAL PROGRAMME FOR TOURISM 1994-1999 which is part of the European Regional Development Fund (ERDF) for Ireland.

BUTTERSTREAM

by Jim Reynolds

It started innocently enough. There was no grand vision of Arcadia, no hint of an all-absorbing passion, no trumpets sounded in my ear - just the heaving and thud of clay being double-dug in preparation for the reception of a dozen hybrid tea roses

This irrational urge to possess a few roses had come quite suddenly. While I had enjoyed helping to plant wallflowers and summer bedding as a child I had during schooldays been a most reluctant gardener, baulking at the prospect of involvement with anything requiring physical exertion. By my early twenties the prospect of a little light dabbling in the garden seemed attractive enough: pruning, dead-heading and a spot of gentle weeding would not be too demanding, I thought.

I soon became a garden visitor. Mountstewart, Birr Castle and Ilnacullin - all on a suitable grand scale - were favourite destinations. In Britain, Crathes and Sissinghurst provided inspiration. My horizons began to expand quickly and I realised that even a young chap with nothing more than a dozen roses could learn an immense amount about the principles of design, layout and planting.

These new found notions and theories would have been of little use had there not been some ground on which to make a garden. I was particularly fortunate in growing up on a farm, so there was some space available for these early horticultural experiments and nobody particularly objected to my enclosing the corner of a field. As I became more ambitious (more foolish, my friends thought), the fence migrated farther and farther out into the field.

From the early 1970's a series of small compartments evolved. The site, being long and narrow, particularly lent itself to division, and as I began to collect plants and to concentrate on matters of design it seemed most reasonable and logical to devote different areas to particular plants or colour shemes.

In the beginning my ventures were greatly enlivened by the frequent visits of stampeding cattle or by browsing horses whoses special delight was to pull recently planted shrubs and trees from the ground, chew on them a bit and then discard them. Other rural delights missed by town gardeners were the visits of the rabbits and hares. They shared things very fairly; the rabbits nibbled away on the herbaceous plants while the hares barked the shrubs and trees. Strong pailings and fences with the addition of mesh wire all around the perimeter solved most of these problems. After that the dogs and I - there were four of them and they were young and hefty - could enjoy the garden. We had particular fun with the box hedges I had planted and it took a little time to realise that dogs and box just do not go together. The dogs persisted in raising their legs and spraying the poor box, so exeunt dogs (for most of the time).

Knowing nothing, I naively assumed that I could grow anything that took my fancy: a few camellias, acacias, lots of rhododendrons, an embothrium or two. The possibilities seemed endless, or so the horticultural literature seemed to imply. After all, this is Ireland, we have a mild climate and we are renowned for our Robinsonian gardens. It did take very long to learn that the Irish midlands are not suited at all to these things: the ungrateful plants

persisted in dying. The soil is a heavy limestone clay and there is generally hard winter frost.

These setbacks did little to disenchant me, but were, I soon realised, a decided advantage and saved me from the dreaded fate of making a rhododendron garden supplemented with conifers and heathers for added boredom. I thoroughly agree with the late Russell Page's summary of most large rhododendron collections as being as artistically interesting as a wallpaper catalogue. Instead I came to the joys of roses old and new - enormous and sprawling like the delicious pink *R.'Belvedere Rambler'* (common in old Irish gardens) or the delectable little Edwardian *R. 'Natalie Nypels'* - flowering shrubs and small trees, foliage plants and most importantly of all the unending range and variety of herbacious perennials.

There were choice and tasty pickings to be found in old gardens, particularly in old walled gardens around the country: shrub roses that had long ago lost their names and lots of tantalising herbaceous plants. The candelabra primulas, *P.'Lissadel Pink'* and *P. 'Asthore'*; the startling alpine thistle, *Eryngium alpinum 'Slieve Donard'*; and numerous choice old crocosmias and campanulas are just a few almost forgotten plants which were to be found.

As a plant collector it would be so easy to end up with a jumble of horticultural misfits and oddities and no doubt some would find corners here which begin to resemble cabinets of curiosities. I try to be rigid on matters of design and of colour, always bearing in mind that a garden should be an aesthetic or even sensual experience with a careful buildup of drama and excitement, interspersed with pauses leading to new expectations and eventually to a suitably timed climax.

While each garden room at Butterstream is complete in itself with its own particular mood and planting, the eye is drawn onwards by the sight of a gate, an urn or a pavilion until the final corner is rounded and the grand finale comes into view. This is a small Tuscan temple reflected in a lily pool set in a wide pavement and surrounded by formal lines of box and terracotta pots, providing an evocation of a different world - a villa garden in Pompeii.

After 20 years of five to nine gardening (the best part of the day from nine to five was spent as an archaeologist of sorts), I decided that the garden should begin to keep me. Having worked single-handed for so long it was time to have a little help and this would be paid for by opening to the public.

It is rather nice to note that the Good Gardens Guide has been pleased to honour my efforts with their highest accolade, two stars. (Some think that my head will never again fit through the door).

Nature must take much of the credit. Many things have suceeded in spite of me and the overall result has been beyond my expectations. My hope is that visitors will be inspired to be more adventurous and daring in their own gardens. It really is the greatest fun.

SEAFORDE ESTATE

by Patrick Forde

My interest in gardening started in 1961 When I inherited Seaforde, a very beautiful estate, blessed with a mild climate and a fertile and acid soil. It was in a run down and overgrown state. The years since then have been spent in clearing and restoration which has created spaces for an even increasing collection of trees, shrubs and other garden plants. In the mild climates hollowed out in woodland areas we have experimented to find out what limits of tender plants that we can grow.

In 1974 we decided to clear and restore the walled gardens; some five acres divided into two equal sections. The Southern half, originally a very formal garden we replanted in a fairly formal manner with a Hornbeam *(Carpinus betulus)* maze in the centre. The northern half formerly the kitchen garden was turned into a Nursery. This latter move was partly prompted by the demise that year of the Slieve Donard Nursery - a nursery which had put so many first rate plants into so many good gardens.

The scene was set to build up a very exciting collection of trees and shrubs to enhance the demesne and gardens at Seaforde and to put many interesting plants onto the market especially as in this locality we can grow a much wider variety of plants than is possible in most of the British Isles.

Early maps of the demesne in the 18th Century show straight awarnes of the pre landscape era. At the end of the 18th Century a major re-landscaping took place in the Brom/Ripton style. *Fagus, Quercus, Tilia Larix, Abies, Rhododendron ponticum* and *Prunus laurocerasus* were the main genus planted and these still dominate the landscape.

In the late 19th Century newly introduced plants were added. Of these surviving now we have many North American trees such as *Sequoiadendron gigantium* and *Abies alba* also some fine examples of *Cryptomaria japonica Var Sinensis* and *Pinus nigra garamanica* the Guinean Pine possibly brought back by my great grandfather who fought in the Guinean War.

From the early 20th Century the main prominent introductions are *Rhododendron arborem, Crinodendron hookerianum, Acer palmatum, Cordyline australis* and *Sophora tetraptera;* the latter growing happily in the site of a central-heated conservatory then considered necessary for their survival: these plants have now grown to huge sizes.

Of those who inspired me early on to grow good plants at Seaforde I must mention Major Jerarce Johnston of Wild Forest, Bryansford, Gerald Annesley of Castlewellan, Henry McIlhenny of Glenveigh and

my grandmother the late Viscountess Bangor of Castleward. They all generously gave me special and unusual plants many of which are now growing to maturity; these people influenced me with what they had achieved in perhaps only one facet of their full lives.

Of the plants we grow many come from the Southern Hemisphere. A visit to New Zealand in 1980 re-inforced this interest. Such plants as *Holuva Meford* we find invaluable in the late Summer especially *Hoheria sextylosa* which seeds itself freely. *Cordylines* give a tropical touch and the *Myrtus, Azaras, Drimys* and *Embothrium* from South America flower well here. *Eucalyptus* grow to great heights fast; so fast that we often cut them back so that there root formation keeps pace with their trunks enabling them to be more wind firm. The many *Olearias and Senecios (Brachygottis)* add much in their seasons, especially my favourite *Olearia rani.*

Of all the Southern Hemisphere plants the *Eucryphias* are the most prominent; in fact we hold the National Collection. Flowering from mid-July until the last flowers fade in January the Eucalyptus make a beautiful background. We have twenty between species and cultivars including a new species found last year in Queensland, which we have not yet planted out in this climate. Many interesting forms of *Eucryphia lucida* have come recently from Tasmania including two pink forms and two with attractive leaf variegations.

In recent years I have taken the opportunity to join five expeditions to South East Asia and to collect in that part of the World. Compared to Europe there are so many species growing. I have been on expeditions to Bhutan, Vietnam, twice to Yunnan and last Autumn to Tibet. This means that in the pipe line we have numerous wild collected plants growing on.

Of these *Rhododendrons* play a large part and we now have many wild collected species. Some of the most unusual being species from North Vietnam collected at about 8000 feet just South of the Chinese border. Many of these are planted out and appear hardy here and in Fermanagh where we are trying them out and where conditions are not as mild as here.

Last Autumn plants collected in Tibet at many high altitudes should prove very hardy here.

The number of South East Asian plants is vast but outstanding must be the *Acers*, the various genus of Oak *(Quercus, Lithocarpus, Castinopsis)*; outstanding in Tibet were vast forests of *Quercus semecarpifolia*, a plant scarce in cultivation. The family *Magnoliaceae* is found over most of that area.

It is very exciting for us that there are still so many scarce plants in the wild to be brought into cultivation and our ambitions is to use them to enhance the gardens here and to make them available to other gardens.

MOUNTSTEWART GARDENS

by Nigel Marshall , Head Gardener

Mountstewart lies on the east shore of Strangford Lough on the Ards Peninsular. It is blessed with a soft mild climate which enables many plants of the Southern Hemisphere to be grown. The garden covers some 75-80 acres and is virtually at sea level, rising to 80 feet at its highest point. The soil is lime free with an average rainfall of 35 inches per year.

The garden was created in 1921 by Lady Londonderry. Thanks to her creative mind and her catholic taste in plants the garden is richly adorned in every way. The firm basic designs are fully endowed botanically and artistically and also architecturally. The stone animals which decorate the Do-Do Terrace are not mere garden whimsies but reflect a wartime activity of Lady Londonderry which can be read in the "Guide to the Property'

It can be divided roughly into 2 parts. The Formal Gardens surrounding the House contain **The Mairi Garden** with beds in the shape of a Tudor Rose and has a general colour scheme of blue and white planted in a cottage garden style with a mixture of shrubs, herbaceous plants and bulbs to give interest throughout the seasons. A notable feature is an old *Cordyline australis* some 45 feet tall growing near the small summer house.

The Italian Garden extends on the south side of the House. Its design is based on the Parterre Garden at Dunrobin Castle in Sutherlandshire where Lady Londonderry was born. Clumps of *Eucalyptus globulus* some 100 feet tall at either end and the towering Irish Yews planted about 1900 which, by their position give maturity to the design. One Parterre has flowers of red, purple, orange and yellow. The other of pinks, lavenders, blues and whites each with complimentary foliage. Various tender shrubs and climbers adorn the walls and terrace on the south of the House, *Rosa banksii, Rosa gigantea, Clianthus puniceus, Magnolia grandiflora,* tender *Rhododendrons, Beschorneria yuccoides* to name but a few.

The lower part of the Italian Formal Garden leads to the **Spanish Garden** down a flight of broad curved steps. Either side are a series of tall clipped arches of *X Cupressocyparis leylandii* at the far end. The Spanish House has green glazed curved tiles to match the colour scheme of Glaucous-grey foliage with yellow and salmon flowers.

From the West Terrace one looks onto the **Sunk Garden** that was partly designed by Gertrude Jekyll. It is surrounded by a raised walk and pergola and hedged again with *X Cupressocyparis leylandii*. The colour scheme of this whole garden is blue, purple, orange and yellow. Mounting the steps at the far end of the garden the visitor enters the Shamrock Garden



Echium pininana in front of *Azara serrata* Seaforde Gardens



Annesley Gardens Castlewellan



Mountstewart Gardens West Terrace

dominated by the "Left Hand of the McDonnells" which is planted in the summer with red Begonias. This garden is surrounded by a yew hedge with various topiary pieces on the top. This in turn leads to the **Lily Wood** an informal area containing *Eucalyptus*, tree Ferns, many *Rhododendrons, Camellias, Bamboos, Myrtles*, Lilies, *Meconopsis* and many other plants.

The visitor on leaving this area will find himself on the main drive which is planted with Conifers, *Eucryphia, Rhododendron, Hydranger* and *Magnolia*. This drive leads back to the gravelled north front of the House which is decorated by large clipped specimens of Sweet Bay. Similar specimens are also on the west and south terrace. These were all imported from Belgium in 1923 at a cost of almost £100!

From this spot the visitor moves away from all the formality of Mount Stewart into a much relaxed informal area of the garden, across the expansive lawns covered with Daffodils in the spring with great trees of Monterey Pine, Wellingtonia, Holm and English Oaks, Limes and *Magnolia campbellii*. To the east of this lies the Rhododendron Wood with many large specimens of the *R.grande* Series amongst the other many species and hybrids of this large genus.

Some 250 species and Hybrids of *Rhododendron* are growing in the garden. Other woodland trees and shrubs are also growing amongst the mature Beech and Douglas Firs of this wood. At the foot of this hill is the lake, the dominant feature of this part of the garden. It covers some 5 acres and is richly planted with Daffodils, scarlet Rhododendrons, Japanese Maples and Azaleas, *Embothrium* and *Sophora tetraptera* which provide a riot of colour during the spring which is followed in the summer through to autumn with *Hydrangea, Kniphofia, Hypericum* and *Zantedeschia aethiopica* which grows with abandon in the waters. Clumps of *Gunnera* contrast with the sword like foliage of *Phormium tenax* and groups of Pampas Grass.

Looking towards the hill at the north end of the lake, one sees through *Nothofagus dombeyi, Nyssas* and Crinodendrons the roofed corner towers of Tir-na-n-og, "The Land of the Ever Young". This area contains many plants from the Antipodes, *Leptospermum, Hakea, Pittosporum, Metrosideros lucida* and *Callistemon* to name but a few. From South Africa are *Agapanthus, Dierama, Watsonia* and *Kniphofia* which flower through to autumn.

Here also is the private burial ground of the family, where the guiding spirit of the garden rests. Lady Londonderry devoted 35 years of her life to Mount Stewart. A garden as she wrote "to be lived in and enjoyed", the time was well spent for the benefit of us all.

CASTLEWELLAN NATIONAL ARBORETUM

by Sam Harrison

This outstanding garden of international repute ranks high within the British Isles for the magnificent collection of trees and shrubs. Although limited for space it is particularly notable for a collection of southern hemisphere species:- *Eucryphia, Nothofagus* and *Podocarpus* to name but a few. With many great gardens ravished by gales in recent years, the collection at Castlewellan continues to grow in stature, with many of the original trees top of their group in size and girth.

The National Arboretum is situated within Castlewellan Forest Park, formerly Castlewellan demesne and adjoins the town of Castlewellan in Co Down. The close proximity of the Irish Sea with the mild influence of the Gulf Stream, plays a major role in the vast variety of trees and shrubs growing healthily within the arboretum. It faces east and south and is surrounded by mature mixed woodlands so that it is well sheltered. The average rainfall is 900mm and there is little frost. The subsoil is gravel and as it lies on rather a steep hill there is perfect drainage - a great advantage for tender, as indeed it is for all plants.

The Annesley family had lived on this site since 1740. From the very earliest days they had begun to develop the landscape, later to provide important shelter to the present tree collection. During the 19th century Hugh, the fifth Earl Annesley derived himself infinite pleasure in his quest to possess beautiful new and rare plants. To assist these aims be commissioned the famous nursery firm of Veitch, as well as many others, to collect rare plants mainly from the far east through the Yokohama Nursery Company in Japan. It was he who had made the original collection of trees and shrubs for which the gardens are so well known and loved.

When Hugh died in 1908 his son Francis continued his father's work but principally employed the then flourishing Daisy Hill Nurseries at Newry, Co Down. Following his death in an aeroplane over Ostend, Belgium in 1914, his sister Mable succeeded to the estates and resumed the name of Annesley. During this period only limited planting was carried out, and at times the trees suffered from lack of maintenance. She relinquished her interests in the estate to her son, Gerald Francis in 1927 who proceeded to rejuvenate the garden and created intimate collections of species:- *Podocarpus* (1938) *Juniperus* (1941) *Eucryphia* (1946) and *Ilex* (1954).

The Annesley Estate was purchased by the

Department of Agriculture, Forest Service, in 1967 from the late Mr Annesley and opened to the public in 1969. Since then the arboretum has been extended and will eventually occupy 40 hectares. Originally the arboretum occupied six hectares.

If you delight in the quiet and peace of a glorious arboretum then Castlewellan offers that and more. It is a garden full of surprises to the amateur, as well as the most enlightened professional. There is much in the arboretum to interest the connoisseur with special seasonal features developed for year round enjoyment.

On entering the Annesley Garden the area is divided into two by a high wall, selectively screened by the planting of flowering trees and shrubs, and running from the entrance towards the greenhouses. It is further sub-divided by well planted paths, the main ones giving long straight vistas. Looking from the centre of the garden, where the two main paths intersect, the focus of attention is the ornamental fountains. The larger of the two, with stone herons patiently standing guard, is flanked by rich crimson maples, *Acer palmatum Atropurpureum*, while the top fountain with a merboy stands amongst dwarf conifers, rhododendrons and azaleas. A striking feature of the upper garden is the herbaceous borders which are separated by a wide gravel path and enclosed by clipped *Taxus baccata* and *Drimys lanceolata* hedges festooned during summer by the rampant but lovely red flowering *Tropaeolum speciosum* or 'Flame Flower'.

The large dimensions of the borders permit the use of many genera which provide a rich diversity of shapes and shades and patterns of colour for many months in the year.

Planted in 1856 close to the main entrance are the oldest trees in the garden, the twin *Sequoiadendron giganteum*. They are 42 metres high and under planted with the attractive fern, *Blechnum capense*. An adjacent group of *Chamaecyparis lawsoniana* contains cultivars, *'Headfordiana', 'Youngii', 'Intertexta'* and *'Patula'* show the diversity of colour and form of this valuable garden plant.

Among the closely allied genus of *Cupressus* is a specimen of *C. macrocarpa 'Lutea'* measuring 35 metres, it is the female parent of x *Cupressocyparis leylandii 'Castlewellan'* and also *C. Macrocarpa 'Keown'*. Other Cupressus specimens include the rare but tender *C. cashmeriana*, the Mexican Cypress *C. lusitanica glauca 'Pendula'* and *C. gaudalupensis* with attractive peeling cherry-red bark.

The Silver Firs are a beautiful and varied genus, in all forty-five species, varieties and cultivars are represented. The oldest *Abies* in the garden, *A. numidica*, was planted in 1886 and is 25 metres high. Other plants of note include *A. homolepsis*, planted in 1891. *A. spectabilis, A. delavayi 'Georgei'* and the very rare 'Flaky Fir', *A. squamata.*

The presence of quite a number of New Zealand plants has been influenced by the Annesley family connection with that country. Notable amongst these is the genus *Podocarpus*. There are fifteen species to be seen in the walled garden. The willow-like foliage of *P. salignus* creating an almost tropical effect.

To the east of the main gate is the main collection of Spruces. *Picea smithiana*, 25 metres high and with a full branch spread of 17 metres is outstanding. The Earl Annesley in his book Beautiful and Rare Trees and Plants, written in 1903 recorded that it was grown from seed received from the Himalayas in 1868.

Throughout the arboretum specimens include *Juniperus recurva, Cedrus deodara 'Robusta Pendula', C deodara 'Albospica', Dacrydium franklinii, Pseudolarix amabilis and Torreya californica.*

In addition to the conifer collection for which Castlewellan is noted there are numerous fine specimens of broad-leaved trees and shrubs:- *Arbutus menziesii, Betula jacquemontii, Carpodetus serratus, Cornus capitata, Pseudowintera colorata* and *Telopea truncata* with striking, nectar filled red flowers which are reminiscent of *Embothrium.*

The primary objectives of the National Arboretum are two fold:

* to plan the establishment of the arboretum so that all the major species are presented at different stages of maturity, thereby providing continuity and permanence;

* to make it available for scientific and educational use.

As the arboretum is a feature within the Forest Park it is therefore open all year round. Guides are available on a pre-booking basis to highlight the seasonal features. The coffee house, toilets and information centre are situated at the main car park. An arboretum booklet is on sale in the Ranger's Office. Parking facilities are available at the entrance to the Annesley Garden for the less able.

ASPECTS OF ROWALLANE GARDEN

by Mike C Snowden, B.E.M. A.H. R.H.S.

HISTORY
The Beginnings:

The Rev John Moore on his retiring from his Ministry, purchased the Estate in 1858 in the town land of Creevyloughgare and at Ardmore in County Cavan. His brother, William took up residence at Ardmore and carried on his profession as a Land Agent. The Rev John chose to stay in the glacial sculptured rolling countryside of Co Down. In 1868 and 1873 he purchased further adjoining Estate in the town land of Leggygowan which collectively with that in Creevyloughgare he named "Rowallane" after his ancestral home in Scotland. Here he built a modest house, stables and a walled garden. He farmed the majority of the land, but created a new entrance from the Belfast Road, planting arboreal rhododendron and specimen conifers along the sides of this avenue, sheltered by Beech and Scotch Pine, densely under planted with Laurel. This entrance route is punctuated at focal points with curios stone cairns. Constructed from river round granite boulders which he had transported from the Bloody Bridge near Newscastle some miles away. At a view point he built a large semi-circular stone seat. To the East of the house he then created the pleasure grounds, planting many specimen trees, again with dense shelter planting around the boundary.

In 1887 he made a will leaving both Rowallane and Ardmore to James Hugh Moore Garret, his sister Elizabeth's son. But in the fourth codicil dated 20 January 1888 Ardmore was left to James H M Garrett and Rowallane to James H M Garrett as Trustee until his brother William's son, Hugh Armitage Moore attained the age of 25 years in 1901.

HUGH ARMITAGE MOORE
The Embellishing:

Hugh, a Land Agent like his father, was already a keen gardener. Taking advantage of the shelter now well established at Rowallane, he began to carry out extensive planting. The walled garden once producing his uncle's vegetables, now became the means of raising plants from seed gathered by collectors on various expeditions. He corresponded with E H Wilson, Reginald Farrar, Kingdom Ward, George Forrest and others. He was in contact with the Botanical Gardens of Kew, Edinburgh, Glasnevin and The Royal Horticultural Society Wisley. He exchanged many plants with other private collectors and compiled notes on plant performance at Rowallane. The plant content of the garden increased to become of major importance. Hugh's knowledge and contribution to horticulture of the day was acknowledged by The Royal Horticultural Society when it awarded him "The Victoria Medal of Honour" 1942.

A number of plants raised by Hugh are now in many gardens throughout the world. *Chaenomeles 'Rowallane'*, a seedling, the original plant now a huge bush in the outer walled garden. *Hypericum 'Rowallane' a (H. Leschenaulti x H. Rogersii)*, a self sown seedling found growing in the rock garden is undoubtedly the Prince of Hypericums. *Primula 'Rowallane Rose'* again a seedling self sown. It has to be increased by division as it is sterile,(is still a feature in the rock garden.) *Viburnum plicatum* var. *Tomentosum 'Rowallane'* was raised from seed collected by E.H. Wilson in China. The plant growing in the cross garden has been given several awards by the R.H.S. and it has come to light that a sister seedling also exists in the garden. In recent years *Crocosmia masoniorum 'Rowallane Yellow'* appeared as a sport. Other rare plants worth a mention. A fine specimen of *Euodia glauca* in the paddock is the only one recorded in the National Trust's woody plant catalogue. Also a plant of *Carrierea calycina* growing in an area known as the Holly Rock is one of only two in Ireland. The other a mature specimen is at Birr Castle. There is a magnificent specimen of *Magnolia campbellii alba* towering above the rhododendrons in the spring ground. This was a plant swop with J C Williams from his garden at Caerhays Castle in Cornwall.

After his death in 1954 through the generosity of the Northern Ireland Government,the 200 acre (94.14 hectares) Estate of "Rowallane" 52 acres (24.48 hectares) being garden was acquired on behalf of the National Trust. The management of the garden with Lady Jean O'Neill as the adviser and Hugh Armitage Moore's Head Gardener , John Hanvey who continued the upkeep until he retired. John Hanvey, Junior his son followed.

MIKE C SNOWDEN
My time:

I took over as Head Gardener in 1981 and though the plants are of major importance, it is the setting that makes the garden for me. No earth moving, no artificial features. Hugh Armitage had a gift for placing his plants. The rolling fields divided by dry stone walls, several with huge outcrops of exposed rock created one of the most natural settings for a garden in these islands and the plants are arranged in and around these features. The attraction for me is this wonderful setting and the challenge of a garden with such superb plant content now becoming over mature. Many gardens stand independent of their surrounds. Not so Rowallane, it fits easily in to its setting and there is a comfortable relationship between the native Flora of the old woods and fields, with the exotics from many parts of the world. Short mown paths wind through the longer grass, disappearing round large plantings or leading to small iron gates, set in the ivy covered walls, inviting



Primula 'Rowallane Rose' Rowallane Gardens



Meconopsis x sheldonii 'Slieve Donard' Rowallane Gardens



Outer Walled Garden Rowallane Gardens

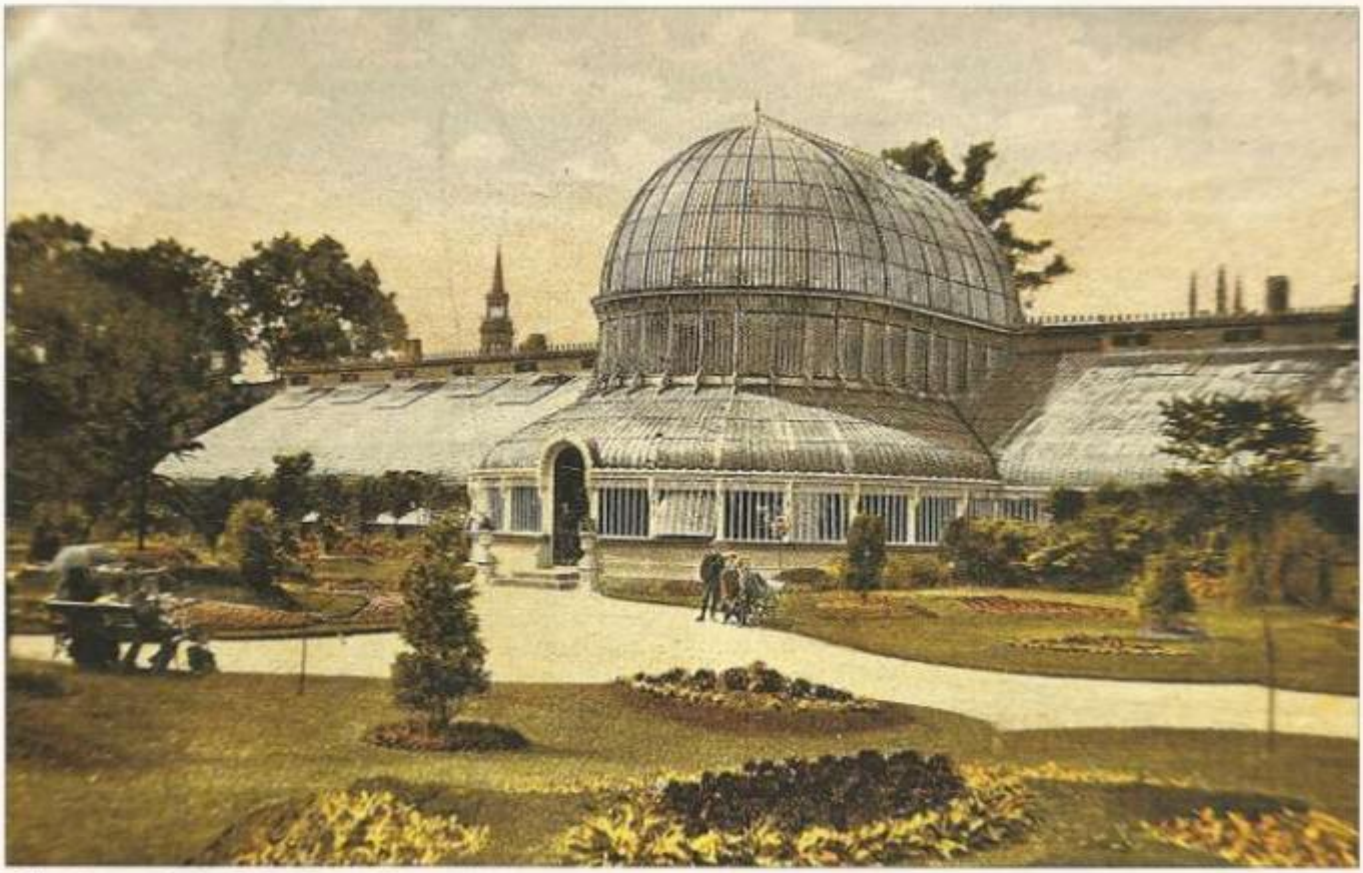
you in to a plant rich secluded corner or a vista across rock outcrops spread with dwarf shrubs, out into the patchwork of the countryside.

To preserve a garden it has to go on developing; it must be constantly groomed and shaped by annual pruning etc and renewed when necessary. The key is to keep the sense of the place, to be aware of what fits with its past to continue its future.

I lead a small band of dedicated staff in this task, our purpose the upkeep of a garden open to National Trust Members and the public who we hope will feel welcome guests in what is the private garden of an owner now past. Through our work they can share in the ambience of his creation. Our greatest compliment is the visitors' appreciation and enjoyment of our work.

I am the present day keeper of the garden and respect my predecessors for their work as keepers in their day and hope that the craft passed on to younger generations, will ensure that the needs of the garden in the future will continue to be met.

Though gardening is my job it is much more than that, it is a way of life. There is a bond between the garden and the gardener that runs deep and in quiet times usually at sunrise or in twilight, when there is time to stand and stare. I am as much a part of this place as the old stone walls, the wonderful trees from places far and the simple wild flowers around my feet.



Belfast Botanic Gardens Palm House, Belfast c.1910

BELFAST BOTANIC GARDENS PARK

by Reg Maxwell

The Belfast Botanic and Horticultural Society founded the garden in 1828 and the first curator employed in August of that year was Thomas Drummond. He laid out the grounds much as they are seen today.

The gardens' claim to fame is through the Palm House, built by Turner of Dublin in 1839-40 and designed by Charles Lanyon, and the unique Tropical Ravine (1887-89) the work of the last curator Charles M'Kimm.

The main plant collections are in these two fine houses and give the visitor a taste of the tropics.

In the late 1970's renovation work took place on the Palm House and Tropical Ravine and the houses were re-opened to the public in 1983. From that date there has been a policy of re-stocking and restoring the plant collection inside and out, with emphasis on preserving the Victorian character of the park. We are also trying to replant the gardens with plants associated with Ireland: the first National Collection

attributed to a nursery and not a genus is here. This is the Donard Collection, brought together to celebrate the role which the Slieve Donard Nursery of Newcastle, Co Down, played in the introduction of some 200 garden plants.

Very little is left of the original planting of the Gardens with only a few oaks, conifer and acer left from the plantings of the 1860's.

The main stock of mature trees are oak, ash, birch, pine, chestnut etc with few choice species. A tree of fine proportions is *Quercus canariensis*, an upright specimen of 60 feet plus. It stands out with its dark bole and large evergreen leaves of 8cm long which last all winter and only fall when the new leaves grow in spring. Cold easterly winds do some winters remove the leaves from the top of the tree. On the great lawn (a place for all the events) a good specimen of *Carpinus betulus quercifolia* intrigues the visitor by its display of the two distinctive leaves. The tree gives the appearance of being a chimera as it produces branches containing the betulus and quercus leaves. A small tree for the rockery is *Picea abies 'Clanbrassiliana'* This dense flat topped spruce was found at Tollymore, Co Down and named after the then owner Lord Clanbrassil. It can truly be called a dwarf conifer as it is so slow growing. The lower gardens contain the collections of *Eucryphia.* and *Escallonia.*

There are shrubs good for park use such as the *Sambucus nigra Guincho Purple*; the dark purple foliage is a good backcloth for the flowers. An evergreen that looks attractive in winter sunshine is *Myrtus apiculata 'Glanleam Gold'*. The splashes of gold on the foliage are most attractive and the Botanic plants survived around 10oc of frost in the winter of 1995-96. The Pieries are a showy group with the young red shoots but a form that is particularly good is *P. 'Daisy Hill.'* It has great sprigs of flowers making it most attractive in Spring. Spring is also the time to see the willows as the stem colour is good in the stronger sunlight along with the pussy plums, but take a look down to the ground and another surprise awaits. The parasite *Lathraea clandestina* is appearing with those bright purple blue flowers in masses through the grass, an added bonus.

The Rose Gardens contain some 8,000 roses and were laid out around 1930, the central feature being the stone pergola for climbers. We have a plant of *Rosa x hibernica* taken from the original stool found at Holywood, Co Down by Wm Templeton the Irish Botanist who was an instigator for the founding of Belfast Botanic Gardens. A shrub rose of great value is *Rosa macrantha 'Daisy Hill'* introduced by the Daisy Hill Nursery of Newry, Co Down. The large blush flowers give a great show. A hybrid tea little seen now is *Adir Roache*. The flower shape is good but the strong colour of pink, with reverse silver is very striking.

On leaving the Rose Gardens by the stone steps you enter the herbaceous borders which are backed by yew hedges aflame in summer with the flowers of *Tropaeolum speciosum*. There are three borders each 145 metres in length which give a riot of colour in the late summer. The fourth border is being developed with grasses and bamboos. A feature of the top set of borders is the archway constructed out of cement to look like branches.

To return to the display houses the Tropical Ravine is an exciting house as you can get the feel of a tropical jungle. The promenade takes you into the house at about twenty feet above the floor level giving a bird's eye view of many plants whilst at the same time you walk through some of the climbers. The temperate section of the Ravine has some fine tree ferns, cycads, banana plants and the like. One of the tree ferns has been in the collection for about 150 years. There is a fine group of *Camellia japonica flora plena* which have exceptionally good flowers.

A spectacular tree when in flower is the *Stenocarpus sinuatus* or firewheel tree alluding to the flame coloured bosses of stamens. An interesting tree in flower during January is the *Dombeya wallichii*: the salmon rose to scarlet flowers are borne in dense hanging heads below the large matt-green leaves which are densely hairy. The tropical part of the ravine has some very rampant climbers. *Thunbergia racemosus* has long trails of funnel shaped flowers, red with yellow throats; a fellow thunbergia with most lovely light blue flowers *T. laurrifolia*. Another climber with violet blue flowers is *Mansoa difficilis* or sleeping vine as the scent makes you sleepy. A real scrambler is *Ipomea maritiana* with lovely Morning Glory flowers. The Tropical Ravine is loved by school parties as they can see banana, sugar cane, tara tara, grapefruit, coffee, dates all growing. Two rampant climbers above all else are the *Aristolochia gigantea* which produce flowers that before they open look like a green rugby ball and on opening have a florid brown red face. The *Anemopaegma chamberlaynii* on the other hand has beautiful clusters of yellow tubular flowers. On leaving the Tropical Ravine you can not help but notice the large *Leriodendron tulipifera* beside the door. So important was it last century that they did not move it when building the Ravine. It bears a good crop of flowers most years.

The Palm House is fronted by the traditional flower garden for all the seasonal bedding display much loved by the visitor. We are at present restoring the crown bed. The cool or conservatory wing is where all the colour is, displays of bulbs, *Schizanthus, Calceolaria, Cineraria, Coleus, Chrysanthemum* etc in season. The riot of colour and the scents always delight the visitor. The back wall has a Black Hamburg grape, a plant from the Hampton Court Vine presented by Mr David Mitchell MP, Under Secretary of State, for the re-opening after renovation in 1983.

The dome has a fine specimen of *Doryanthes excelsa*, the Globe Spear Lily of New South Wales. Other Aussie plants are the *Agathis australis* which produced a cone last year, *Xanthorrhoea* or grass tree plant which produced a four foot plus flower spike, and a plant that is good value *Syzygonium paniculatum*. The *Syzygonium* has fluffy white flowers followed by red fruits which are tasty to eat; it makes a superb conservatory plant. Talking of which, the *Pavonia intermedia* with its crimson red bracts is a must. A shrub waiting in the wings is *Breynia nivosa 'Roseo-picta'* that bears young shoots with red stems and leaves that are cream to pink when young.

NATIONAL COLLECTIONS TO DATE

by Graham Pattison

The character of our gardens has changed greatly over the centuries due in part to the increasing range of plants which can be grown.

Towards the end of 1978 the Royal Horticultural Society (RHS) organised a conference entitled "The Practical Role of Gardens in the Conservation of Rare and Threatened Plants", to look at and discuss the decline of the diversity of the gene pool of cultivated garden plants. One of the principal recommendations was to set up National Collections.

The National Council for the Conservation of Plants and Gardens (NCCPG) is an independent charity based at the RHS Gardens at Wisley, who provide accommodation and support. The Royal Botanic Gardens, Kew are also involved as is the National Trust and National Trust for Scotland, Royal Botanic Gardens at Edinburgh and the Irish Garden Plant Society while many other societies are ardent supporters. NCCPG is also a membership organisation with around 7,000 members in 41 county based groups. The scheme has developed from a modest start in 1982 with barely 100 Collections registered, to where we are today within the region of 600 Collections, containing some 50,000 plants, approx 38,000 cultivars and 12,000 species covering some 330 genera.

There are three main functions of Collections:

a) Save our garden plant heritage.

b) Encourage people to grow a wider variety of plants.

c) Help horticultural/scientific research

Most National Collections are mini Botanic Gardens with well documented and labelled plants, the full backup of ongoing, active research, and comply with good horticultural practice. The herbarium material is lodged with the RHS Wisley herbarium of cultivated plants. Some of the collections already lodged include: *Astilbe, Anemone, japanica, Colchicum, Crocosmia, Digitalis, Hosta, Malus, Monarda, Nepeta, Polystichum.* Some Collection holders measure annually the size and development of the bulbs. Thats dedication! Remember, Collections can range from 20 - 3,000 plus taxa. The development of Collections depends to a great extent on the wealth of plant material that is out there, but still untapped. All the time Collections are joining the scheme (37 in 1995), while a few are dropping out.

As Collections develop, both the Holder and outside institutions realise the potential of such Collections for research, either directly or indirectly. The latter includes providing material to research bodies, eg the *Linum* Collection used by Nottingham University for scanning for anti-cancer drugs and the *Polygonum (Persicaria, Fallopia,* etc) material sent to Du Pont Agricultural Products, USA for possible screening of fungicidal properties.

Another example is *Erythronium* being used by Dr P N Taylor of the University of Hull for DNA sequencing to clarify infra-specific variation in *E. Tuolumnense,* whilst the *Pyracantha* Collection at Writtle College is being used by Dr D Nash and David Agassiz of Imperial College for research into leaf miner on *Pyracantha.*

Also, through research on DNA fingerprinting at Nottingham University, the Nottingham Wildlife Trust are working on establishing the origin of the Nottingham *Crocus,* using source material obtained from Ray Cobb, National Collection Holder.

Collection Holders themselves are conducting individual research. The correct naming of plants is the prime objective of many Holders. Some examples are:

Artemisia: Gas Liquid Chromatography study to establish percentage of hybrids.

Araceae: Elizabeth Honnor has been working closely with botanists at Kew.

Borzicactinae: Ray Mottram is writing a monograph of the group.

Cistus: Robert Page is liaising with Jean-Pierre Demoly of the French CCVS on a revision of the taxonomy of the genus.

Cotoneaster: Jeanette Fryer, in conjunction with Professor Bertil Hglro (retired Professor of University of Lund, Sweden), is undertaking a revision of the genus.

Cytisus and Escallonia: Mrs D Purdy, from the Northern Ireland Horticultural and Plant Breeding Station at Loughgall, has reviewed names of commercially available material and published the results in 1993.

Escallonia: Studies are being carried out into the molecular characteristics of selected clones by the use of polyacrylamide gel and electrophorensis, to separate out sub units of protein as an aid to identification.

Erodium: The study of those available in cultivation resulted in the publication of the NCCPG booklet on Erodium in Cultivation, 2nd edition due 1996. This was followed by liaison and exchange of material with Kew, Edinburgh, Cambridge and Oxford Botanical Gardens, etc together with Professor Guitineau, the world authority on Erodium.

Fuchsia: Both Dave Green and Jack Lamb are



Rose Garden Botanic Gardens Belfast



Dombeya wallichii Botanic Gardens



Aristolochia gigantea Botanic Gardens



fruit of *Syzygonium paniculatum* Botanic Gardens

working with Missouri Botanic Gardens in the USA, Dr Paul Berry and Kenneth J Sytsma of the University of Winconsin on DNA analysis with material from the National Collections.

Lonicera (Honeysuckle): D Bradshaw, a wholesale nurseryman, is now coming to grips with the misnaming in the trade of these plants. Nursery men are now checking their stock against the Collection

Liriope and Ophiopogon: Material has been sent to Professor P Frantz of the University of North Carolina, who is undertaking a revision of the genera.

Pelargonium: Hazel Key, Collection Holder, and Diana Miller, Keeper of the Wisley Herbarium, are researching the problems in nomenclature of the species.

Photinia: Wye College (Jane Longlan) has been using the Kent *Photinia* Collection to look at iso-electric focusing on iso enzymes.

Primula auricula: The Microprogagation unit at Wye College (Dr H F Thomas) is working to bring many old cultivars back into circulation.

Pulmonaria: Vanessa Cook, assisted by a retired botanist, is actively working on nomenclature.

Thymus: After many years research, Kevin White and his wife Susie wrote the second in the National Collection booklet series, published in 94. It costs £2.50, inc. p&p.

In the Cultivation of *Alstroemeria*, R.M. and E.E. Squire of Parigo Horticultural Co Ltd are investigating the interaction of the seed dormancy mechanism in aid of germination.

The *Origanum* Collection with Rosemary Titterington has been used by Dr Svoboda and Dr Dean, Scottish Agricultural College, to look at levels of essential oils in various varieties for the herb trade.

In the field of Morphology, the study of the form of plants:

Allium: Mrs P Davies is using optical microscopy to determine infra-specific variability of patterns on seed coats.

Lycaste: Dr H Oakeley is carry out studies of chemical structure of scent molecules and using electron microscopy to examine viral infections in both cultivated and imported Lycastes.

RHS trials are now more closely linked with National Collection Holders, who supply samples of material where required. In some cases the expertise of the Collection Holder is also sought.

Members of the general public and our own members are always asking what have we (National Collection Holders) achieved. Well Collection Holders have achieved a lot more than can ever have been imagined from those early days.

If we look at what has been saved it is always difficult to put things in any order but I think you will agree that to save a wild plant from extinction and be the only one to have been successful is top.

Passiflora

This has been the outstanding success of John Vanderplank, National Collection Holder of *Passiflora* and the plant of *Passiflora pourdesae*. The story goes back 4 years or more when the Venezuelan botanist Dr Miguel Molinari who has researched these plants for five years discovered the species but 18 months later found the plant had been destroyed by the 'march of progress' and relentless deforestation. Material of the plant had been distributed to various sites in both USA and Europe and John is the only person to have established material, well done John. He will in future be supplying material to other institutions, with the possibility of RBG Kew considering a re-introduction programme.

Podophyllum

A Collection developed over years of a genus which formed a main topic of phytochemical research at Nottingham University Department of Pharmaceutical Science which during 1995 ended due to lack of financial support, and the face of total loss of garden facilities due to redevelopment. The Collection containing a couple of CITES listed species as well as a range of genetic variation within the genus is a very important one. We must thank the East Midlands group for their resources in rescuing this collection.

Sarracenia

A unique collection developed and held in private hands for many years went under the hammer and John Ainsworth as well as NCCPG groups succeeded in keeping the collection (under steep overseas competition) in this country and now greatly enhances the existing collection.

Buxus

Elisabeth and Mark Brainbridge of Langley Boxwood Nursery have linked up with the National Botanic Gardens in Havana Cuba, where 33% of the world species are native.

At their own expense they have now an active co-operative project with Dr Angela Leiva Sanchez Director and Professor Kohler of the Humboldt University in Berlin the world expert on Buxus. Mark and Elisabeth hope to return in 1996 to continue the project.

Fuchsia

It was in 1994 that Dave Green made contact with Dr David Neil Director of the National Herbarium in Quito and finished up visiting and will a student made several amazing finds including at least one new specie *Fuchsia subparamosis* and found tubers on *Fuchsia insignis* never before found intact. Dr Benny the authority at Missouri Botanic Gardens said presence of tubers has not been noticed all which were deposited in the National Herbarium in Quito. If we come to cultivars which of course we are more related to, there are several examples where important genetic material has been saved.

Malmaison Carnations

Although the Malmaison carnation originated in France, its cultivation was perfected in Great Britain. *'Old Blush'* or *'Souvenir de la Malmaison'* so-called because it resembled the flowers of the Bourbon rose of that name first came to this country during the 1860's. By the end of the century a number of cultivars were being grown and they had become the

flower of fashion for the London Season. All have a distinctive fragrance of cloves and their natural time of flowering is from June to August.

It was in 1993 that Jim Marshall exhibited his collection of 5 cultivars at the Hampton Court Flower Show, this being the first time they had been on public view for 50-60 years. This was followed up in 1994 with young plants, again the first for 50-60 years and in 1995 with wholesale production. Also possible due to this exposure two new old cultivars have come to light.

Pelargonium

Hazel Key, owner of the National Collection of *Pelargonium* held at Fibnex Nurseries, has been offered material from the collection of Fay Brawner, Deerwood Nurseries in West Virginia USA

This collection is probably the largest and certainly the most reliably named and recorded collection of Pelargoniums in North America and has been assembled over 30 years or more

Hazel, her daughter Ursula and Diana Miller went in November of 1995 to Deerwood. Cuttings were taken from the important cultivars and species which were first fully documented. Having cleared all health regulation requirements the cuttings were brought back to Fibnex.

A large proportion of the many cultivars have never been seen in cultivation over here, while some may prove to have been lost cultivars imported into the USA over 100 years ago.

All material has now happily established over here. This was privately financed by Hazel with a grant from NCCPG towards plant health certification.

Astilbe

Both Henry Noblett and Malcolm Pharoah met at Hampton Court Show in 1994. The great granddaughter of Georg Arends who as we know bred many Astilbe in his nursery in Germany. It was here at Hampton Court that she saw many of the family cultivars that have been lost since the 1940's, so in 1995 both Henry and Malcolm went over, corrected the existing Astilbe's in the Nursery and donated a set including the Arends cultivars.

Dahlia

David Brown in 1988 had gathered some 2,000 cultivars together. It was then he found he had to dispose of the collection which went to several collection holders.

In the early 1990's David moved to Cornwall and "Cornish Dahlias" has now, thanks to most of the collection holders, managed to redevelop the collection to now well over 1,000 cultivars.

Publications

Over the last few years several collection holders have put pen to paper and the following have been published:
Primula by B Shaw
Campanula by P Lewis eta - 2nd edition due 1997
Passiflora by J Vanderplank - 2nd edition due 1996
Primula auricula by B Hyatt
Hosta by D Grenfell
Dianthus by S Hughes
Salix by C Newsholme
Sedum by R Stephenson
Hydrangea by T Lawson-Hall and B Rothera in the National Collection booklet series.
Erodium by M Addyman - 2nd edition due 1996
Thymus by K & S White
Lathyrus by S Norton Summer 1996
Lonicera (Climbing Honeysuckle) by D Bradshaw Summer 1996
Sarracenia by D Bradshaw Summer 1996

International

On the international front several countries have followed our scheme:

In Australia, the Ornamental Plant Collections Association (OPCA) is based at the Melbourne Botanic Gardens; in France, here is Le Conservatoire des Collections Vegetales Specialisees (CCVS).

In the USA, the Northern American Plant Collections Consortium (NAPCC) has been formed through the American Association of Botanic Gardens and Arboreta (AABGA), which looks at National Collections within institutions. The Nursery man Barry Glick has formed the North American Plant Preservation Council (NAPPC) - not to be confused with (NAPCC) - looking at collections held by individuals and commerce.

In New Zealand, Mike Oates and Keith Hammett are identifying existing collections with a view to creating a similar scheme.

In Poland, Dr T J Nowak, of the Wroclaw Botanic Gardens, has acted to set up an organisation resembling NCCPG with the eventual aim to protect original stock in what remains of Polish Historic Gardens.

Both **Belgium** and **Sweden** are working on similar schemes.

Finally, thanks for the success of the Scheme must go to the collection holders themselves, whose dedication and enthusiasm have made the Scheme what it is today and, of course, without whom NCCPG would not exist.

Graham Pattison, Dip. Hort. Kew, M.I. Hort,
Plant Conservation Officer, NCCPG

The 1996 National Collection Directory is available from your local Group or direct from NCCPG at £3.50 inc P&P.
NCCPG The Pines, Wisley Garden,
Woking, Surrey, GU23 6QP,
Tel 01483 211465
Fax 01483 211750

THE ULSTER MUSEUM BOTANICAL COLLECTIONS

by Paul Hackney

The Department of Botany in the Ulster Museum holds an herbarium of some 110,000 specimens of all kinds of plants: algae, mosses, fungi, lichens, ferns, conifers and flowering plants.

Many of the specimens are from Great Britain and Ireland, but there are also substantial collections from the European continent, with smaller amounts from further afield - for example Australia, India, South America - these last being collected in Amazonia by the famous Yorkshire explorer, Richard Spruce. The oldest specimens date from the very end of the eighteenth century, but the vast majority were collected in the last 20 years. In recent years, important collections of flowering plants and ferns have been deposited with the Museum which have been compiled as a part of major survey of the N. Ireland countryside, carried out to assess the conservation needs of various areas or types of habitat. Most recently acquired is the Fenton lichen herbarium, which is an important scientific record of the lichens of N Ireland by a local lichenologist, who was a pioneer in the study of the relationship between lichens and atmospheric pollution.

The great majority of the specimens of flowering plants and ferns are of wild plants, but in recent years a policy of systematically collecting exotic species which are in cultivation in N. Ireland gardens has been pursued. This cultivated plant herbarium now contains about 3500 specimens, and includes important reference material collected as part of the Clonal Selection Schemes carried out by the Department of Agriculture (NI) at Loughgall. A significant proportion consists of material collected from the famous National Trust gardens of Mount Stewart and Rowallane, making the Ulster Museum herbarium the only one in the United Kingdom systematicaly collecting voucher material from National Trust properties.

As well as the pressed plant collections there are important ancilliary collections, such as botanical manuscripts and letters, photographs, ecomonic botany material - timber specimens from all over the world, seeds, fruits, fibres, plant oils. There are also microscope slide reference collections and a botanical library which includes a small number of rare early herbals and other early books. The manuscripts include the major portion of the unpublished work of a local Belfast naturalist, John Templeton (1766-1825), who may justly be regarded as the founder of botanical studies in the north of Ireland. His work is liberally illustrated throughout with his own exquisite watercolours, and he is credited with many 'firsts' for the British Isles - for example the finding of *Orobanche alba* and of *Rosa x hibernica*. A shrub of his finding of this rose hybrid is still alive and now grows in the Botanic Gardens, behind the Ulster Museum, having been rescued twice in its life, once from roadworks, the second time from property developers. Voucher specimens for a similar hybrid, recently described from the Antrim coast, are also lodged in the herbarium.

Allied to the herbarium, field and publication work of its curators is a continuous programme of exhibitions, both permanent and temporary, where various aspects of the plant world and man's dependence on it are explained for the 300,000 visitors who come to the Ulster Museum every year.



The Dodo Garden Mountstewart c.1930 R.J. Walsh Collection Ulster Museum



John Templeton's original watercolour of red broomrape *Orobanche alba* prepared for his unpublished Irish flora c.1793 Ulster Museum Collection

Orobanche rubra
1. Calyx 2. Corolla 3. lower segment with the glandulous hair round the margin 4. Stamen 5. Stamen magnified 6. germin style and stigma 7. same magnified 8 stigma
from the rocks of the Cave Hill near Belfast



Cornus florida 'Rainbow' Newby Hall

PLANT AND GARDEN HERITAGE IN THE NORTH OF IRELAND

by Belinda Jupp

It is known from written sources that monasteries had gardens and it is probable that these were the first organised gardens containing a range of plant material that was not native. Few plants that are native to Ireland have become common garden plants. No pre-Reformation gardens exist today and no on-site research has been carried out to determine the layout of a monastic garden but a small psychic garden has been created at Greyabbey, Co Down as a representation of part of a medieval garden. This was developed by the Department of the Environment in 1993 to commemorate the foundation of GreyAbbey by Cistercians in 1193. Plants known to have been in use in the 12th century for medicinal purposes were chosen and planted by herb expert, Barbara Pilcher. Visitors can enjoy beds enclosed by trellis and filled with swaying yellow heads of Elecampane (a cure for respiratory disorders), spires of blue sage (to assuage colds and fevers), and thymes, (offering fumigant powers) creeping below. These plants and the many others are seen to best advantage in the summer when they are in full growth. All are labelled and a leaflet is available to explain their uses.

The earliest known gardens for which there are pictorial and written records on specific sites emerged at the beginning to the 17th century. Though gardens of this era no longer exist, one site has been revitalised in Co. Fermanagh. When the ruined house at Tully on the shores of lower Lough Erne was cleared of debris, which had accumulated since the house was burnt in 1641, a pattern of paths was discovered near the building. The Department of the Environment decided to lay out a garden in an appropriate style for the house, with typical small formal box-edged beds near to the house. Phillip Wood, who carried out the background research, has successfully designed a delightful plot using plants that were available in 1600. The intricate patterns of the clipped box round and through each bed can be appreciated best from the windowless openings in the ruins of the house above. From there or from the authentic stone paths that separate the beds, the scent of *Rosa Mundi* and sweet briar, the vivid colours of marigold (*Calendula officinalis*) and cornflower, completes the picture. Other decorative plants, small shrubs and herbs, fill the areas between the box.

Larger and grander formal gardens were established by the end of the 17th century. Evidence of these gardens or certain features within them, remain on the ground in many instances. Trees survive, such as the yew on the side of an Anglo-Norman motte at Antrim Castle, which is thought to be contemporary with the house of 1662. Antrim Castle Gardens is the best preserved example from this era with straight avenues and canals aligned to high clipped hedges with woodland beyond, referred to as a wilderness. The garden was restored by Antrim Borough Council in 1993, with the aid of an EC grant. An area that had been grassed over by the original family owners in the mid 19th century has been made into a parterre garden on a grand scale. The southern end is decorated with box-edged beds, considerably larger than in the earlier garden at Tully. The many different species growing inside the box were chosen to be as close as possible to those known at the time of the gardens' origin, though they are planted more densely that would have been the case in former times.

Groups of deep blue-flowered *Campanula persicifolia 'Telham Beauty'* are succeeded by white headed *Achillea ptarmica 'The Pearl'* during the summer. Earlier in the year *Tulipa clusiana* and *Iris germanica Florentina* brighten the beds. There is a newly planted quincunx of hornbeam on a raised area at the north end. Elderly hornbeam hedges remain on the site, together with those of lime and yew, though no original avenue trees survive.

The resuscitation of these gardens enables visitors to appreciate the legacy of garden styles from former generations and gives a useful indication of what plants were available. It is particularly interesting to be able to see the short-lived non-woody specimens.

More original plantings obviously survive as we get nearer to our own time. There is no shortage of fine examples of parkland and shelter belt trees, largely planted in the 18th century in landscape parks. The fashion from the mid 18th century in Ireland was to get rid of the previous rigidity in garden design. Planting and layout appeared to be sympathetic to the contours of the natural landscape, with undulating pasture, strategic tree planting, views of a lough and perhaps of a little temple. One example of intensive demesne planting is commemorated by an inscription on a stone lying in a field, which states that the owner planted 2,500 forest trees during the years 1791-1802. Many trees mostly beech, remain today and stand out like sentinels in the surrounding countryside. Tree edged demesnes are a feature of the landscape, which is otherwise sparsely endowed with tree cover. Traditionally shelter belts were made up of beech, oak, sycamore and Scots pine. Owners became increasingly intrigued with plants introduced form abroad during the century. One of the earliest arboreta was established at Tollymore Park, Co Down from 1768 amidst the wonderful natural surroundings of the Mountains of Mourne. A few of the original trees remain such as a cork oak, now with a crown of over 17 metres.

Fruit, vegetables and flowers were confined to the walled garden during this period. Little is known of the varieties that were grown, though there are

records of fruit stock cherished by descendants. The layout of the walled gardens is known from maps, plans and surveys. Many unclutivated walled gardens exist with original structures and many do contain planted areas adapted to modern conditions and requirements, such as the walled garden at Benvarden, Co Antrim. This is fully utilized and maintained, making a colourful and delightful place to visit. However at the present time there is no example of a reconstructed walled garden in the manner of a 18th - 19th century working garden, containing plant species and varieties in common use during that period.

The equable climate enjoyed by much of the Province has made it a particularly successful habitat for many of the exotic species introduced by plant hunters in increasing numbers during the 19th century. Visitors today can appreciate collections begun by our predecessors who had the interest to invest in enhancing their demesnes. The National Arboretum at Castlewellan, Co Down* has a vast number of outstanding trees and shrubs assembled form the middle of the 19th century. This atractive site is particularly known for its flourishing rare and tender conifers, such as *Abies concolor* (Colorado white fir), which was introduced in 1873. Very large tree specimens can be enjoyed in the lesser known arboretum at Gosford Forest Park, where there is a record breaking *Abies spectabilis* (Himalayan fir) representing early 19th century planting. Both these sites, as well as Tollymore Park and other former private demesnes with interesting plantings of woody material still existing from the 19th century, are administered by the Department of Agriculture: Forest Service.

Plant legacy from the early part of the present century can be appreciated at Rowallane.* This informally planted garden very much belongs in layout to a style that evolved at the turn of the century,, which was the antithesis of the very formal design of the late Victorian period. Noted for the fine collection of rhododendron, the successful planting of *Rhododendron augustinii* is a reminder of the Co. Londonderry born Augustine Henry, who first found this blue-flowered species in China. Visitors gravitate to the handkerchief trees *(Davidia involucrata)* that bear the name of the French missionary, Pere David, who discovered them in 1869. Though neither of these plants were introduced by the discoverers, the collection at Rowallane evokes the memory of those who searched in often inhospitable habitats and of the plantsmen who eagerly awaited the specimens and tended them with care.

The present day garden at Mountstewart,* with a variety of small areas, was created in the then fashionable 'compartment' style from the 1920s. Carefully chosen and rare plants were assembled from that date. Tender subjects like the brilliantly coloured bottle-brush, *Metrosideros lucida* and the rosey bell-shaped floweres of the climbing Chilean bellflower, *Lapageria rosea*, thrive in the beneficial local micro-climate. There is a special emphasis on plants of Australasian origin but a very wide range flourishes in this loverly place. Everything benefits from the inherited mature stands of trees that provide shelter, as was intended when they were planted at the time of the establishment of the demesne in the 1780's. The latter two gardens are owned and excellently maintained by the National Trust.

All the sites are open to the public and can provide viewing on many levels. As indicated here examples of layout, perhaps a typical of the date of origin of the garden, can still be seen from all eras but primarily it is the plants that make a garden. We have the luxury of being able to enjoy a tremendous variety growing within the northern counties of Ireland and we can be grateful to past generations for the establishment of the gardens and their thoughtful planting.

* Gardens referred to in more detail in other articles in this edition.

BOOK REVIEW

by John Ducie.

A History of Gardening in Ireland, by Keith Lamb and Patrick Bowe, Illustrated 232 pages. Published by The Stationery Office, Dublin for the National Botanic Gardens 1995. ISBN 0-7076-1666-2 IR £10.00.

This remarkable book traces the story of Irish gardening from the Celtic and mediaeval monastic gardens through the centuries until the present day. It traces the history of all the prevalent schools of garden design from an Irish context. Much of the information appears for the first time in print and it is the first time the whole story of gardening in Ireland has been told in one volume. It is essential reading for all who garden in Ireland and for those charged with the care of Irelands historic gardens and heritage properties.

I found the chapters on the Early Florists, Victorian Gardens and Robinson's Irish Circle particularly interesting and the whole is extremely well written. Many names new to me leapt off the pages such as Thomas Leggatt responsible for designs for Mount Bellew, County Galway, Marly Park and Stillorgan Park in County Dublin in the early 1700's and John Sutherland (c. 1745-1826) who was working in Ireland at the time Capability Brown was working in England also the more familiar Repton, Loudon and Paxton whose Irish works are described here. In addition the stories of Robertson responsible for Powerscourt and Ninian Niven are well done. The history of Botanic Gardens and introduction of the wonderful legacy of exotic plants to Irish gardens is well told, as is the breeding of some Irish cultivars. Some gaps remain such as the history of nurserymen in Ireland and of the diaspora of Irish gardeners which are only partially dealt with. All in all it is a truly great achievement for our benefit by all who were involved.