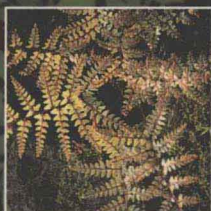


THE PLANTFINDER'S
GUIDE TO

GARDEN FERNS

Martin Rickard



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For Catherine and Edward

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Note: Throughout the book the time of year is given as a season to make the reference applicable to readers all over the world. In the Northern Hemisphere the seasons may be translated into months as follows:

Early winter – December	Early summer – June
Midwinter – January	Midsummer – July
Late winter – February	Late summer – August
Early spring – March	Early autumn – September
Mid-spring – April	Mid-autumn – October
Late spring – May	Late autumn – November

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Page 1 *Asplenium scolopendrium* on the Hermitage, Kyre; page 2 *Polystichum yunnanense*, a tough, robust, evergreen fern; page 3 *Dicksonia sellowiana*, a South American tree fern surprisingly hardy in Britain; page 5 *Dryopteris lepidopoda*, a wonderful red-fronded species from the Himalayas.



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Preface

There have been an awful lot of fern books published in the past, with over 400 different books appearing in English prior to 1900 alone. I can only make a wild guess at how many have been published during the twentieth century, but I would not be surprised if it were as many as 1000. This volume could easily be something like number 1400. So, why do we need another?

In fact, it is not a difficult question to answer because the vast majority of published works are taxonomic and scientific – books for gardeners are relatively rare. In addition, gardening is progressing in leaps and bounds in England, and no doubt elsewhere, too. Because success at a nursery level depends on always having something new and exciting to offer, new species and cultivars of ferns, as well as other plant types, are being introduced in greater numbers than ever before, and information on these new introductions, and the new techniques sometimes needed to grow them, is inevitably sparse. I hope, therefore, that this book will be of some assistance to the reader in recognising and growing some of these wonderful new plants as well as many of the old favourites.

Of special interest in Britain is the sudden availability of tree ferns, mainly *Dicksonia antarctica* from Australia. These are being widely grown with great success, so far with little or no protection from the cold. Whether this is down to global warming or plain good luck and mild winters only time will tell (I prefer to protect my plants in any case). Up to now information on tree ferns has

been sparse and fragmented so I hope the account in this book will provide a concise and useful introduction to how to grow these magnificent plants, and also give information on some of the other tree fern species that might be worth trying.

Alpine plants are very popular. Many ferns fit into this category, none more appropriately than the dwarf desert ferns in the genera *Cheilanthes* and *Pellaea*. Information on recognition of the more common species and notes on how to grow them has generally been scattered in obscure publications. The introduction given in this book aims to encourage their wider cultivation.

Another aim of this book is to highlight the old favourites, especially the 'living antiques' surviving from the Victorian heyday of fern growing, which are great favourites of mine. Fortunately there is still a hard core of growers who covet these rare forms. I hope the inclusion of these plants will make them more widely known with the knock-on effect of making them more widely grown. The National Council for the Conservation of Plants and Gardens (NCCPG) is doing a great job in this area, along with the British Pteridological Society.

The A–Z section is as comprehensive as I can make it. Most of the ferns included are, or have been, grown by me. My comments are, therefore, usually based on personal observation.

I look forward to seeing a continuing influx of new ferns for our gardens. My current dream is to find a tree fern that is truly hardy in the climate of central England.

Part One Introduction to Ferns





I The Botany and History of Ferns

T rue ferns are the principal components of the plant group known as the Pteridophyta. In an evolutionary sense the Pteridophyta fit between the Bryophyta (mosses and liverworts) and the Gymnospermae (conifers or gymnosperms). Of all the plants known today, the Pteridophyta are the most primitive with vascular tissue (tubular cells that carry food and moisture around the plant). The more primitive mosses and liverworts lack vascular tissue and are, therefore, very limited in size.

Ferns do not produce flowers. They reproduce by spores, which are usually brown or green and normally formed on the underside of the fronds. For some gardeners the lack of flowers might be seen as an insurmountable problem, but the diversity of the frond shapes and the enormous variety of shades of green, sizes and textures is adequate compensation. (See pp.172–174 for details on the fern lifecycle.)

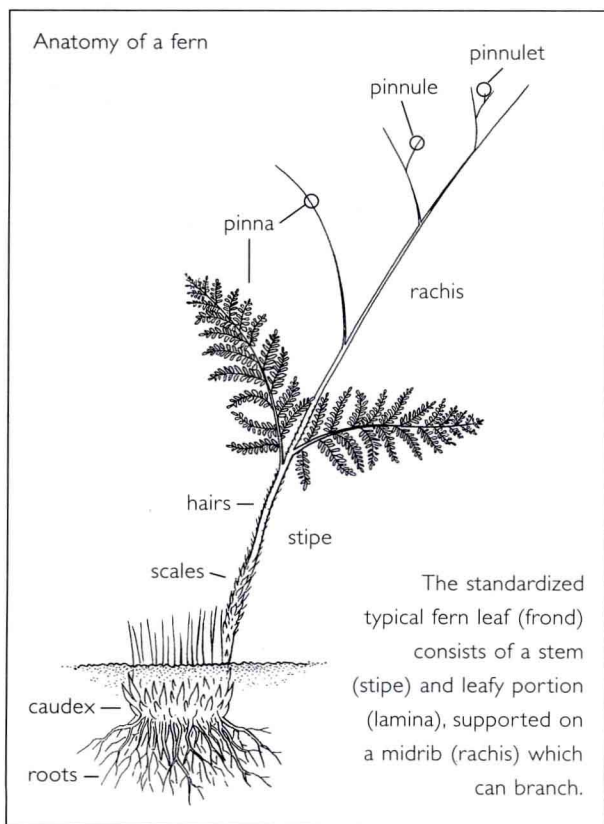
Whether in a mixed border or specialist fernery, ferns deserve wide use in the garden in their own right. For the more general gardener they have the great advantage of being second to none when it comes to adorning difficult shady corners, and virtually all gardens have such places, frequently embellished with nothing more than a dustbin or piles of junk.

A HISTORY OF FERN GROWING

Prior to the Victorian fern craze, ferns were rarely cultivated. They had little economic value and those considered to be useful medicinal herbs were harvested from the wild. In *Filices Britannicae* (1785) James Bolton provides a list of ferns for the hot house. Today, many ferns in his list are known to be perfectly hardy; the need for a hot house suggests fern growing was a rich man's hobby. Everything changed around 1842 with the appearance of *On the Growth of Plants in Closely Glazed Cases*, a little book written by Nathaniel Ward. He showed that even in grimy cities, plants could be grown in glazed cases without any damage from atmospheric pollution. This, coupled with the influence of books by George Francis and Edward Newman, started a fashion for collecting ferns as souvenirs of the countryside. By 1850 the craze was well underway, and throughout the 1860s and 1870s was sustained by a mass of books on the subject. Gradually, as the century approached its end, interest in ferns declined but, curiously, it was then that a few keen fern growers made a determined effort to form a society to study them. This society, called the North of England Pteridological Society, was founded in 1891. The following year it changed its name to British Pteridological Society, the name by which it is still known. (In the 1870s an attempt to form a fern society, also called the British Pteridological Society, had faltered and failed after five years. Very little is known about this group today.)

The authors of the many mid-Victorian books seem to have been the acknowledged fern experts – initially Edward Newman, soon followed by Thomas Moore and

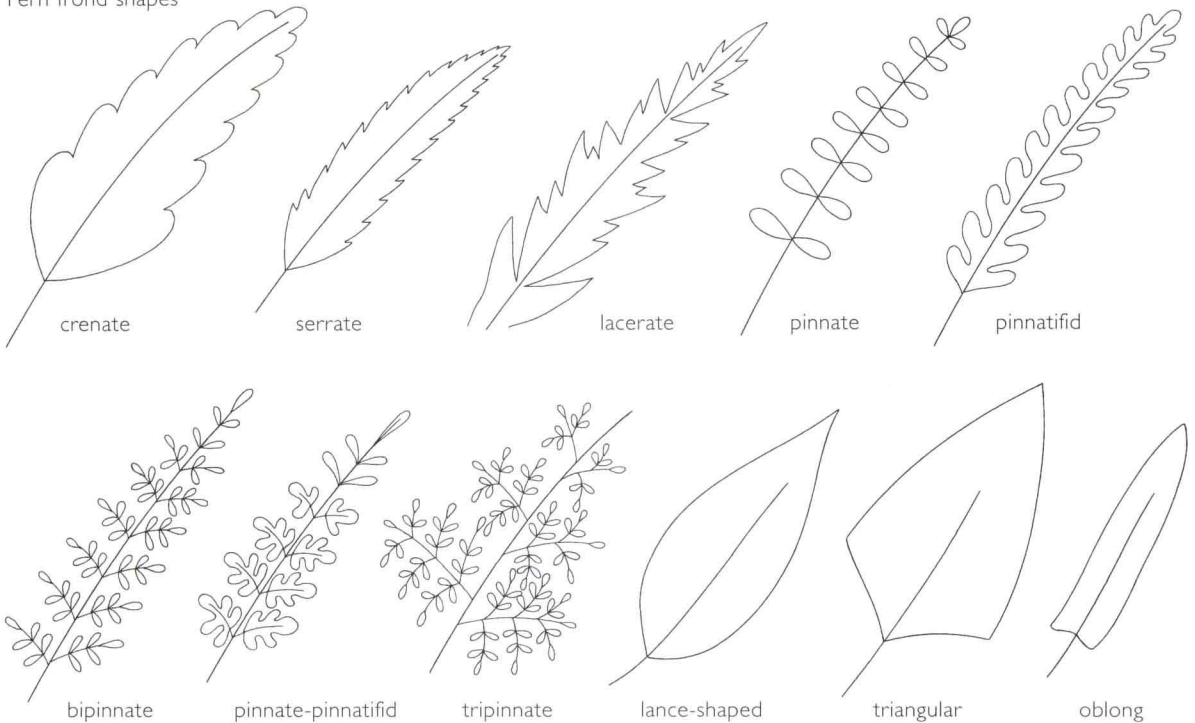
Previous page: Ferns border a shady path in Rita Coughlin's garden at Lydiate Ash near Birmingham.





A impressive display of ferns in a dry border at Leinthall Starkes, Herefordshire.

Fern frond shapes





Asplenium scolopendrium 'Crispum', alongside the summer house at Kyre.

Edward Lowe. Both Moore and Lowe took great interest in cultivars of British ferns that were being found by amateur collectors. Both named hundreds of forms – many not really worth the trouble. Nevertheless, plenty of good things were being discovered and brought into cultivation. Many are still well known, even after more than a hundred years, among them *Dryopteris filix-mas* 'Bollandiae', *Athyrium filix-femina* 'Victoriae', *Polystichum setiferum* 'Plumosum Bevis' and *Polypodium vulgare* 'Elegantissimum'.

As the century progressed Edward Lowe took up the lead role. His book *British Ferns* (1890) is still the most comprehensive book on fern cultivars ever published. A rich man living near Chepstow in Gwent, Wales, he was fascinated by the life cycle of ferns and conducted experiments to cross different taxa. Although these were successful, he had great difficulty getting his work accepted by the scientific community. It was only when he crossed two cultivars and produced an intermediate form that the importance of his work was recognized.

Lowe died in 1901 and the mantle fell to Charles

Druery who lived in Acton in West London and was a very successful fern grower. He was also a gifted writer, publishing a huge volume of material on ferns (and related matters) as well as three books. Druery's collection of plants was one of the best ever accumulated. When he died, he passed them on to William Cranfield of Enfield in Middlesex, a wealthy man who had plenty of space for cultivating ferns. Through the 1920s he established the best collections of the day, putting on magnificent exhibitions for the Royal Horticultural Society in London. Unfortunately, few of his plants were ever distributed to other growers and in many cases he had the only plants of a given cultivar. In old age, just after World War II, he decided to give his enormous fern collection, including many unique forms, to the RHS gardens at Wisley. It would seem that Wisley did not have the facilities to look after the collection, given all the post-war shortages, and struggled to maintain it. Today most have disappeared. If only Cranfield had been more inclined to distribute plants, more of the old treasures might still be in cultivation.

Fortunately, through the first three decades of the twentieth century, several other great fern growers also maintained good collections. Pre-eminent among these was Dr Frederick Stansfield who wrote many useful articles and grew his ferns well. Many of the most interesting ferns still in cultivation can be traced back to his collection.

In 1935 a young man suddenly took an interest in ferns. He was Jimmy Dyce, and it was to the great benefit of the British Pteridological Society that he came along when he did. Almost single-handed, he resurrected the society after the war and proceeded to build it up to the thriving organization that exists today. Jimmy held virtually every position within the society in his time, including being the first President Emeritus. He died in 1996, aged 91, still a leading member 61 years after he first joined.

One of Jimmy's great passions was to spread the interest in ferns as far and wide as he could. When he heard of interest in Australia, he established contact with Chris Goudey near Melbourne and helped the Fern Society of Victoria find its feet. This society has been a huge success and recently assisted with restoration of the huge Victorian fernery at Rippon Lea in Melbourne.

Jimmy also became involved in fern growing in the USA. The American Fern Society had been set up in 1893 after only a few years of fern interest (as far as I can

discover, the first North American book on ferns was not published until around 1870). This society seemed to be more interested in the science of ferns and their distribution than in their culture. Ferns were obviously grown but I have never come across any reference to a specialist fern nursery in existence early in the twentieth century. It was not until around 1980 that two nurseries got underway. One of these, 'Fancy Fronds', was set up in Seattle and run by Judith Jones who made contact with Jimmy. A strong friendship developed between them, Jimmy doing all he could to help Judith set up a flourishing business. It is a strange coincidence that the only other specialist fern nursery in the USA, 'Foliage Gardens' run by Sue and Harry Olsen, is also in Seattle.

Working parallel to Jimmy for much of the same period was the nursery run in the southern English Lake District by Reginald Kaye. Although Reg was not deeply involved in the society, his nursery faithfully offered selections of ferns every year when virtually no other nurseries were trading in them. By offering many good things from his private garden, Reg helped carry the flame for fern growing for many years. He died in 1992 but his daughter-in-law and grandson continue to run his nursery.

Around 1970 ferns started to become more popular again in Britain. Jimmy Dyce's enthusiasm, and his encouragement of Hazel Key of Fibrex Nurseries, led to another fern nursery emerging. Working in tandem with Ray and Rita Coughlin, Fibrex offered a good selection of garden-worthy species and cultivars. Today there are several newer fern nurseries (see Appendix V, p.186). My own nursery, Rickard's Hardy Ferns, was begun in 1989. It has progressed much more quickly than I expected, and, like Fibrex and Reginald Kaye Ltd., now exhibits at many of the major flower shows. Today's gardeners have no excuse for not finding ferns for virtually every garden situation.

The future for fern growing is very rosy. Certainly here in Britain there is an ever-increasing awareness of ferns. His Royal Highness The Prince of Wales likes ferns and has created several ferneries in his garden near Tetbury in Gloucestershire, and across the world more and more ferneries are being created or restored.

FERN HUNTING

One hundred years ago fern hunting meant fern collecting; today this is illegal in most countries and should be discouraged. However, hunting ferns for photographs or

simply to record distribution can give enormous pleasure. Both the American Fern Society and the British Pteridological Society arrange meetings specifically for this purpose. The great benefit of these forays is that even if the ferns prove elusive the scenery and company will be first class.

Just occasionally when fern hunting, a variant of potential garden merit may be found. What to do then is a problem. Collection is possible but only after the owner of the land has been consulted. Purists may prefer



Springtime croziers of *Polystichum yunnanense* compete easily with natural vegetation at Kyre Park.





to see variants left alone for ever, but I would counter that if left in the wild, variants rarely persist. They are more likely to survive if distributed in cultivation. An example of this is *Dryopteris filix-mas* 'Bollandiae' found in Kent, England in 1857 by a Mrs Bolland. The fern was collected and is still in cultivation, but has never been refound in the wild since. Recently, the *Dryopteris* expert, Christopher Fraser-Jenkins, was shown a specimen. He immediately thought it could well be a hybrid between *Dryopteris aemula* and *D. filix-mas*. Research will be needed to test his theory, but at least it is possible to do this research all these years later because Mrs Bolland collected the plant. There are many other similar cases of old clones of ferns still in cultivation that may one day prove useful to research.

In the old days when collecting was legal, if not always forgivable, the collectors would resort to clever tactics to capture their prizes. Charles Druery in *British Ferns and Their Varieties* (1910) wrote some wonderful notes on this subject. I reprint a short section here:

'... Of course it occasionally happens that the successful hunter is confronted with difficulties which will tax his inventive powers to overcome ... a very desirable harts tongue was noticed just over the arch spanning a Devonshire stream, and only just within reach of a trowel lashed to a stick. If dislodged it would inevitably fall into the rapid stream below and be lost. The problem was solved by the fortunate presence of an umbrella, which being opened and suspended under the arch by a string, eventually received the prize when dislodged. A second similar bridge difficulty with a variety of *Polypodium vulgare* was met differently: the umbrella could not be used as the wall was sheer, but by means of a loose slip knot of string, the fronds were lassoed, and when the root was dislodged, the plant was drawn up and bagged in the normal way.'

Druery was only after potential new cultivars, not species, and did little or no environmental damage. Unfortunately, however, before him, at the height of the Victorian fern craze, fern collecting was common on a large scale. Plant-hunting was a social thing, especially among the ladies, and baskets of ferns were gathered indiscriminately. Sometimes, with rare ferns such as woodsias, every plant found was collected, making some plants extinct in some localities. Despite this we can say

A cooling pergola of ferns is shaded by overhanging clematis and ivies at Lydiate Ash, near Birmingham.

that no fern species has become extinct in Britain since records began. Even near London, rarish conspicuous ferns, such as *Osmunda regalis*, are reappearing and are possibly nearly as common today as they were before the Victorian fern craze. Today our rarest ferns, including the woodsias, are protected by law in Britain – not only must they not be collected but the collection of spores is also illegal.

Not all plant hunters of the past wanted to collect their finds; however, their dedication to the cause was sometimes quite remarkable. Robert Lloyd Praeger recounts how on one occasion he became so engrossed in the flora of an Irish bog that darkness fell and he could not find his way home. It was a very isolated spot but luckily a cottage light was visible so he decided to walk towards it in a straight line. This entailed wading chest deep in freezing water. What a pleasure!

There is, of course, another form of fern hunting, which entails building up a collection from nurseries, friends, old gardens, and so on. Whole plants can be acquired or only propagating material. In many ways it is better to start with spores of a cultivar as you may then succeed in raising something completely new. Unfortunately, the rarest cultivars all need to be collected as divisions from an original crown. Often they are slow to grow to a divisible size, and are, therefore, very difficult to obtain. It makes hunting ferns all the more rewarding when you succeed.

FERNS AND THE DECORATIVE ARTS

The delicately attractive shapes of fern fronds were particularly admired during the nineteenth century and widely used to decorate everyday items, particularly in the English-speaking world. This interest, together with the love of the plants themselves, later became known as the Victorian fern craze, mentioned earlier. It ran from about 1845 to about 1880.

Many artefacts from this period have survived but are often overlooked. Building stones may be carved in the form of a fern frond, or the furniture and carvings in churches may represent ferns, for example the corbels at St Michael's Church, Farway in Devon. Fern decoration on gravestones, such as those in the churchyard at Lynton in North Devon, were popular. It was also common on household items. The iron works at Coalbrookdale in Shropshire, England produced three models of cast-iron garden seats with fern motifs. One, 'Fern and Blackberry' (photo p.17), is not uncommon, but the other two mod-

elled on the royal fern, *Osmunda regalis*, are extremely rare. Even umbrella stands were cast with fern patterns.

More noticeable, perhaps, are the many types of decorated china and pottery. Some potters made plates with ferns painted on them or with the shape of the fern moulded into the design. One of the earliest was William Brownfield whose fern pottery appeared from 1859 onwards. He produced jugs with raised patterns of rather stylized ferns. The fern segments could have been from many different species, and he used other plant parts, including wheat ears and acanthus, to complete the design. The jugs were, nevertheless, very elegant. Even more spectacular, and slightly more common, was the beautiful range of pottery produced by the Dudston factory at Stoke-on-Trent from 1860. Here, three-dimensional models of selected species were arranged in a frieze around a whole range of items including jugs, sugar basins and cheese dishes. The quality of this work is so excellent that the species of fern can often be determined. Among them are *Asplenium ceterach*, *Ophioglossum vulgatum* and *Botrychium lunaria*. The workmanship approaches the classical nature printing achieved with such style in some early Victorian books.

In 1870 H. Adams & Co. of Longton produced plates made from moulds into which fern fronds had been pressed. Accuracy in the moulding was not as great as the Dudston method but the plates were overpainted in very bright and accurate colours, again allowing identification of many of the species depicted. Produced from about 1880 to 1950, and quite common, but often overlooked, is the porcelain manufactured at the Royal Worcester factory where fronds of the hart's tongue fern were cleverly moulded into jugs, sugar bowls, and so on. They were usually white, but occasionally yellow or blue examples turn up.

Another set of plates I came upon were made by Wedgwood using fern transfers taken from Anne Pratt's book *The Ferns of Great Britain and their Allies* (1855). Although no doubt cheaply produced, the set is of great beauty – and even useful diagnostically!

Between about 1870 and 1900 a small group of companies in Scotland decorated wooden boxes with fern designs stencilled using a form of spatterwork. Groups of dried fronds were fixed to the wood and the paint was applied; once the background was sufficiently covered some fronds were removed and more paint was applied, more fronds removed and more paint applied, and so on, until an almost three-dimensional effect was created.