



Hardy Fern Foundation
Quarterly



Summer 2017

THE HARDY FERN FOUNDATION

P.O. Box 3797

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Web site: www.hardyferns.org

The Hardy Fern Foundation was founded in 1989 to establish a comprehensive collection of the world's hardy ferns for display, testing, evaluation, public education and introduction to the gardening and horticultural community. Many rare and unusual species, hybrids and varieties are being propagated from spores and tested in selected environments for their different degrees of hardiness and ornamental garden value.

The primary fern display and test garden is located at, and in conjunction with, The Rhododendron Species Botanical Garden at the Weyerhaeuser Corporate Headquarters, in Federal Way, Washington.

Affiliate fern gardens are at the Bainbridge Island Library, Bainbridge Island, Washington; Bellevue Botanical Garden, Bellevue, Washington; Birmingham Botanical Gardens, Birmingham, Alabama; Coastal Maine Botanical Garden, Boothbay, Maine; Dallas Arboretum, Dallas, Texas; Denver Botanic Gardens, Denver, Colorado; Georgia Perimeter College Garden, Decatur, Georgia; Inniswood Metro Gardens, Columbus, Ohio; Lakewold, Tacoma, Washington; Lotusland, Santa Barbara, California; Rotary Gardens, Janesville, Wisconsin; Strybing Arboretum, San Francisco, California; University of California Berkeley Botanical Garden, Berkeley, California; and Whitehall Historic Home and Garden, Louisville, Kentucky.

Hardy Fern Foundation members participate in a spore exchange, receive a quarterly newsletter and have first access to ferns as they are ready for distribution.

Cover design by Willanna Bradner

HARDY FERN FOUNDATION QUARTERLY

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Editor- Sue Olsen



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President's Message

In early June the HFF celebrated its 44th Annual Fern Fest. This event originally started prior to the Hardy Fern Foundation's forming when its founding members were fern enthusiasts with our parent organization the Northwest Horticulture Society (NHS). The highlight of this event is one of the best fern sales in the country followed by our annual members' meeting and lecture. This year we were treated to a presentation given by Andy Navage, the Director of Horticulture for the Bloedel Reserve on Bainbridge Island, Wash. One of Andy's specialties is woodland plants and it was a pleasure to hear of his experiences with several new and interesting plants.

Fern Fest is also a time when we elect our board members. I am happy to welcome two new board members, Charles Ogburn and Daniel Mount. Both have been long-time volunteers in the horticultural community and we are excited to have them join the HFF board. Congratulations as well to three re-elected board members Forrest Campbell, Kathryn Crosby, and Jane Whiteley. Kathryn will continue as our recording secretary and Forrest has been working on our annual fern hike that you can read more about in this issue.

Unfortunately, elections can also mean change: we bid farewell to long-time board member and extraordinary supporter of the HFF, John van den Meerendonk. John retired from the board after serving over 20 years; he held several officer positions including twice as president. His leadership and experience were invaluable in designing and creating the HFF stumpery, and the Signature Bed design and planting at the Washington Park Arboretum. He organized and built our new production hoop house as well as spearheaded the creation of the fern display garden at the Bellevue Botanical Garden. In addition he also designed, planted and maintains our affiliate display at the Bainbridge Island Public Library. We will greatly miss John on the board, but fortunately he will still be an active participant in the organization and I am sure we will see him volunteering at many of our events. Thank you, John, for your years of hard work – the organization would not be the same without you.

With summer in full swing it is time to watch for spore and collect for the HFF spore exchange. The spore exchange is a fun way to get new ferns and share special plants from your own collection. Carolyn and Jerry Doherty run our spore exchange and appreciate your donations.

On a final note, several special events are on the horizon and should not be missed. The Elisabeth C. Miller Memorial Lecture will be held on Sept. 7 at Meany Hall at the University of Washington. This special lecture is a horticultural gift to the community and will feature famed author, Anna Pavord, as the speaker. Tickets are free after August 1 at info@millergarden.org. On Sept. 16 we will hold our 2nd annual HFF fall plant sale at the Bellevue Botanical Garden with a great selection of plants ready for fall – the ideal - planting time. Finally our traditional Fall Fern Social and potluck lunch will be held October 21st also at the Bellevue Botanical Garden and retiring board member John van den Meerendonk will be our featured speaker. Be sure to be there for these special events!

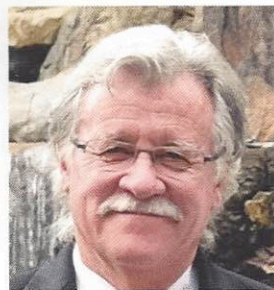
All the best, Richie Steffen - HFF President

Pseudo Pteridotrivia regarding *Polystichum wilsonii*

James R. Horrocks

Salt Lake City, UT

The story goes that a certain castaway was marooned on a remote deserted island with only grasses and some low shrubs and one single fern. The castaway liked the fern so much he named it “Wilson”. (Forgive me for my levity but, after all, this next article follows my “observations” on classification and scientific names in the Spring issue. Recently, my younger son and his wife returned from a short vacation to southern Utah and brought back a small potted cactus that he named “Gary II”. Apparently, “Gary I” was on life-support when he got it over a year ago and it died. Personally I would have named his new cactus “Ticaboo” after the place where he purchased it. These names are no more ridiculous than some common names given plants. I’ve never liked “Long-Eared Holly Fern”, an awful name for such an elegant plant [*Polystichum neolobatum*]. All that comes to mind is a big goofy cross-eyed March Hare from the mad tea party in Alice in Wonderland. “Spleenwort” is troubling. I wonder if I shouldn’t get shots and put on protective gloves before going near it.) Anyway.... now to more serious matters....



***Polystichum wilsonii*/ *Polystichum sinense* Wilson’s Holly fern**

James R. Horrocks

While *Polystichum wilsonii* is accepted in the literature, Fraser-Jenkins maintains that it should be properly recognized as *Polystichum sinense*. (Fraser-Jenkins, May 2017) This robust beautiful species is named after Ernest Henry “Chinese” Wilson, a notable English plant collector and botanist who was born in 1876 but died tragically with his wife in an automobile accident in 1930. He was responsible for introducing nearly 2000 Asian plants to the West and 60 plants bear his name. *P. sinense* was originally given to small, rather narrow-leaved plants and the confusion stems from the fact that at the juvenile stage *P. wilsonii* can be “precociously fertile” (Fraser-Jenkins) especially when growing among rocks with limited soil room. Adult plants display wider and larger fronds, as long as there is plenty of soil. *P. aculeatum* var. *stenophyllum* is another name that shows up and *stenophyllum* does mean “narrow-leaved” but it most likely refers to *P. stenophyllum*, an entirely different species. Other synonymous names include *P. fukuyamae* (Tagawa) and *P. alticola* of



South Africa, native to the Drakensberg Mountains which accounts for reports of the disjunct presence of *P. wilsonii* in South Africa. {Perhaps this plant could be re-named *P. "wilaltsin"*} (Sue Olsen's idea).

This robust tetraploid fern is native to the Himalaya, including extreme northern India, Kashmir, Nepal, Tibet, Pakistan, and also China and Taiwan. Wilson, himself, collected it in southwest China. There may also be a disjunct colony on some uncharted island in the mid-Atlantic. (Oh, there I go again – Scratch that.)

In the western Himalaya, it is considered an uncommon fern, showing up in areas of high altitude growing against rocks and bushes often above the tree line. Elsewhere, it is a denizen of mountainous terrain most often in rocky scrub.

Description: The rhizome is thick and erect sending up a basket of as many as 10 or more fronds with thick straw-colored stipes that are scaly and densely fibrillose, that is, having delicate fibers or hairs. The scales are of two types, the first linear-lanceolate, light brown, concolourous, with margins showing short projections, and with extended acuminate apices. The second type are pale brown and more scattered and larger, becoming smaller and narrower on the upper portion of the stipe. The larger scales set it apart from the closely related *P. discretum* which it could be confused with in the wild. *P. discretum* has only small scales throughout. Another native, *P. bakerianum* is similar but usually the upper surface of the frond is smooth and hairless. It is pinnate-pinnatifid, not fully bipinnate as in *P. sinense / wilsonii*. (We'll call it *P. sinense* from here on out) The rachis is scaly as well as quite fibrillose, the scales fewer, light brown and linear-lanceolate with fimbriate margins and long-acuminate tips. The evergreen bipinnate fronds are 18 to 24 inches in length, linear-lanceolate in outline, very similar to *P. braunii* but the pinnae and pinnules are larger. The author has in his garden what is purported to be the Alaskan version of *P. braunii*, also found in northern Japan, that has fronds noticeably darker green than the variety from eastern North America. *P. sinense* looks like the Alaskan version of *P. braunii* on steroids. There can be up to 35 pairs of lanceolate pinnae which are fibrillose above and below but more so below. The base of the frond sports reduced pinnae, the last pair pointing downward or deflexed toward the base, again reminiscent of *P. braunii*. The pinnules, some 15 pairs, are oblong-narrow lanceolate, alternating, with the apex acuminate, bearing rather small teeth with hair-like projections. The pinnule apex is tipped with a single large hair-like pointed tooth. Sori appear mainly on the upper half of the frond and are covered with the characteristic large orbicular indusia which is light brown, semi-transparent, with margins irregularly fimbriate. The spores are dark brown and, as has been mentioned, this species is tetraploid sexual.

Culture: Being a tetraploid, this is a strong growing rather large fern, the medium to dark green fronds a pleasant addition to any garden. It is quite hardy in Zone 6 and very likely to Zone 5. The evergreen fronds can grow quite large. The author has in his garden a specimen that has produced 11 fronds from one crown, most of which top 30 inches in length. The fiddleheads, covered in dense scales, put on quite a show with their curly caterpillar growth. This species is an early riser in the spring so care should be taken to protect it from early spring frosts. Nestle this fern up against a large

rock or among rocks, making sure to give it ample soil room. It is rather easily grown from spores, a culture producing abundantly, but growing slowly compared to other *Polystichums*. This stunning species, whether you want to call it *P. sinense* or *P. wilsonii*, or just plain “Wilson”, should be in every serious collection and, to quote Sue Olsen: “adapts graciously to woodland cultivation.”

References:

Khullar, S.P., 2000, *An Illustrated Fern Flora of The West Himalaya*, Vol. II, International Book Distributors, Dehra Dun (India)

Fraser-Jenkins, Christopher, 1997, *Himalayan Ferns (A Guide to Polystichum)*, International Book Distributors, Dehra Dun (India)

Fraser-Jenkins, Christopher, (Personal communication to the author, May 17, 2017)

Olsen, Sue, 2007, *Encyclopedia of Garden Ferns*, Timber Press, Portland

Rickard, Martin, 2000, *The Plantfinder's Guide to Garden Ferns*, Timber Press, Portland

Ed. Note: Fresh spore of this fern are now available from the HFF spore exchange. Contact Spore Exchange Director, Carolyn Doherty at Dohertycarolyn@hotmail.com.

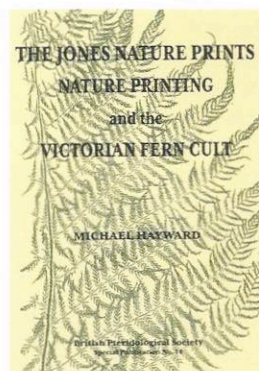
Book Review: The Jones Nature Prints, Nature Printing and the Victorian Fern Cult

Dr Michael Hayward
128pp Published by the British
Pteridological Society 2015 Special
Publication No 14 Plus CD

Pat Acock ~ Kent, England

The Jones Nature Prints consist of a series of prints of fern fronds on sheets of paper 305cm x 490cm made using the fronds themselves. The sheets were printed in 6 batches and sent to people who subscribed between 1876 and 1880. The ferns used consisted of ferns that were known in Britain and more especially cultivars of these ferns. As Martin Rickard points out in his forward to the book, “Many of the cultivars illustrated are still in cultivation. With this reference collection of prints now readily available it is possible other long lost cultivars might yet be rediscovered.”

Dr Hayward has been interested in nature printing for many years and has been searching all the extant copies of what have become known as the Jones Nature Prints. After comparing sets he established what constituted a full set which allowed him to use a high definition scanner at the Natural History Museum, London to scan such a set which is included as a CD Rom with this book.



In this well researched, well-illustrated and fascinating book he covers the history of nature printing, the rise of interest in nature as a whole and ferns in particular, the culmination of this interest in the mid to late Victorian period of what has been termed Pteridomania and the formation of the British Pteridological Society.

Dr Hayward starts with the history of nature printing. The earliest and simplest method involved the inking of the specimen and transferring the ink to the paper by inserting pressure. The process had been known at least as far back as the turn of the fifteenth century being described and used by Leonardo da Vinci. Dr Hayward proceeds to show how the process was used to illustrate floras, medical books and even banknotes across Europe and North America. He goes on to show how the process developed over the years from pressing plant material into lead, creating wood blocks, etching plates to lithography. He also shows and illustrates other uses of nature printing to decorate wood (Mauchline Ware) and the printing of collages on fabrics.

Then he deals with the history of the interest and rapid research in the nineteenth century of the study of nature specialising here on the fern aspect. He dwells on the interest of people in collecting specimens and the need to be able to access knowledge in the local language. Prior to this texts were mostly in Latin. With the rise of the fern craze which Charles Kingsley of *Alice in Wonderland* fame describes as 'pteridomania', he recalls the formation of the first British Fern Society in the early 1870s and the characters involved.

An interesting biography of the principal fern characters of the day now follows starting with Colonel Jones of the prints himself. Other notable characters covered are Rev. Charles Padley a prominent pteridologist of the time and the originator of "The Project" (Nature Printing the popular ferns of his day) but relinquished it to Colonel Jones, Padbury's sister who grew ferns and had two of the choice *Polystichum setiferum* cv and much sort after and Thomas Smith, Padley's gardener, who had been trained to create nature prints and often accompanied Padley's sister on her fern hunting trips. Thomas Moore of the fern book who became curator of the Chelsea Physic Garden still famous for its fern house today, Edward Lowe a very enthusiastic fern collector and fern author and the notable members of the early British Pteridological Society are covered and it is intriguing how this inner elite of the world of ferns are so interlinked by marriage and a fanatical interest in ferns.

Later mentioned in the book is James Barnes of Leven who contributed 19 fronds of different cultivars for Jones Nature Prints. His story giving further insight to this world of the Victorian period can be found in the book *The Three Legged Society*.

What follows are chapters on the various techniques of nature printing, details of Jones' approach and execution of the printing and distribution of the prints along with where the known collections are today. Diligent searching by Dr Hayward has resulted in a considerable archive of facts and figures which have been so organised as to be of enormous interest simply in reading through them but also an added research tool for anyone fascinated by any aspect of this period of Pteridomania. Dr Hayward enables us to make the connections between what is known about this time and its leisure activities and to follow research into related Victorian interests and how these developed through the nineteenth century.

He also shows how the prints were used by later enthusiasts to illustrate their books

most notably Charles Druery and the writers in the British Pteridological Society's early editions of the British Fern Gazette.

Now that Dr Hayward has put all the prints on CD they are available to a wider audience outside universities and institutions. The sheets are annotated and so some of the earliest evidence for cultivar names are present and the clear nature of the prints showing the smallest details should result in names being fixed and some of the similar cultivars grown at present reduced to a reasonable number.

This is a reasonably priced book and CD but the print run is limited so be sure to pick up a copy before they run out.

Related books you may find interesting:-

The Nature-Printer - A tale of industrial Espionage, Ferns and Roofing-lead Simon Prett and Pia Östlund (2016)172pp. pub: TimPress, Reigate. Softback. ISBN: 978-0-9934845-0-6

The Three Legged Society: The lives of the Westmorland naturalists George Stabler, James M. Barnes and Joseph A. Martindale. Ian D. Hodkinson and Allan Steward (2013) 117pp Published by Centre for North-West Regional Studies, Lancaster University Paperback. Full colour cover, 67 colour figures. ISBN: 978-1-86220-297-9

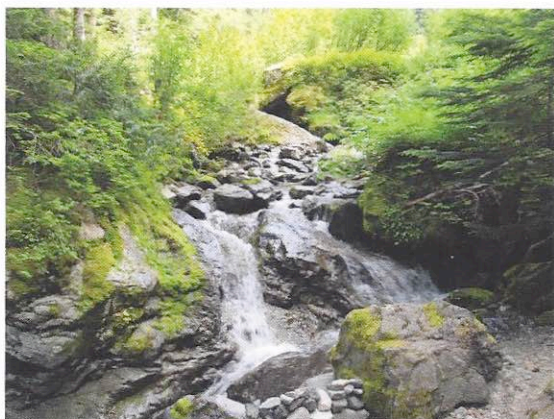
Fern Fever Sarah Whittingham (2012) 192pp. pub: Frances Lincoln. Hardcover. ISBN: 978-0-7112-3070-5

Perry Creek Hike

Forrest Campbell ~ Bothell, WA

The thought of organizing the Hardy Fern Foundation Summer Hike sounded like a great idea to me. My wife René and I went to the one to South East Mt Rainier at Ohanapecosh years earlier and enjoyed every bit of it.

After researching several choices for the hike and after talking with several of my friends in horticulture. I felt Perry Creek was the one. So off I went to find out more about this area and the possibility of ferns.



One of the first things that I discovered was that Art Kruckeberg had taken the hike 50 years earlier. Art was Professor Emeritus of Botany at the University of Washington

and author of several horticulture publications. He was one of the founders of the Washington Native Plant Society. And along with his wife Mareen started the Kruckeberg Botanical Garden in 1958.

I had met Art a few times at his garden in Shoreline WA. And was hoping to see him before the hike and hear his take on it. Unfortunately Art passed away on May 25th, 2016 at the age of 96. After reading his article in the American Fern Journal Volume 66 Number 2 April – June, 1976, I noted the following.

1 'No less than 26 species of ferns and fern-allies'

2 The listing of ferns was compiled from observations made over the years with the most recent made on September 11th, 1975 by members of the Fern Study Group of the Northwest Horticulture Society and the author. Note: Of which our very own Sue Olsen was helpful in the field surveys.

René and I scouted the hike in mid-June getting about 3/4 up the trail towards the falls when thunder, lightning and rain turned us around Easy conclusion, the hike to Perry Creek was on .

19 HFF members gathered on August 6th at the Perry Creek trail head parking lot, elevation 2000 Ft. altitude. We had a short talk about what to expect as far as what we would most likely see with regards to ferns, information about the trail and approximate time we would meet for lunch. Richie Steffen our President had provided me a list of 26 ferns that he had hoped we would find today. We then headed up the trail. Throughout the hike we encountered the following trees for the over story and home to the ferns.



Acer macrophyllum,

Cupressus nootkentensis formerly, *Chamaecyparis nootkatensase*

Abies amabilis

Pseudotsuga mesiesii

Tsuga heterophylla

Acer circinatum

It didn't take long before we saw our first ferns - the usual suspects -

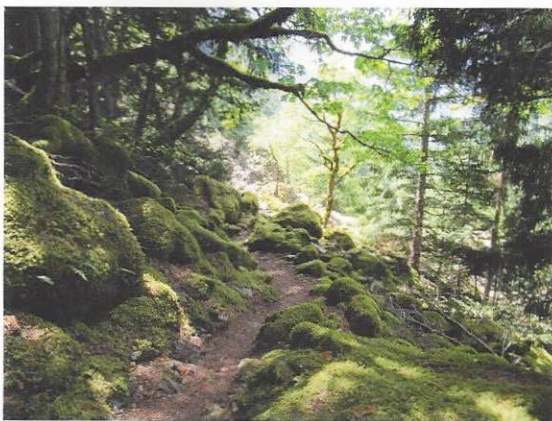
Polystichum munitum

Blechnum spicant

Athyrium filix-femina

Dryopteris filix -mas

Just after the old trail head start the group had spread out some opting to take a little more casual approach with hand lens and camera. Others took in the sites to the South towards the Ice Caves and several falls along with the ferns and others making a hike of it. There were pockets of ferns on the hillside, in rock crevasses and up in the trees. They were followed by the first of many talus slopes which consisted of huge massive jagged boulders. Some were easy to cross and on others we were on all fours crawling to our own trail. Sometimes we went straight across and on others in a switchback pattern. Well something you should try at least once. I did four times - up and back twice. At times I asked myself and others I imagine did the same. 'What I'm I doing here'?



When we stopped for lunch around 11:30 it was sunny and of all places on one of the talus sites. The view up hill was 'I hope the earth does not move or I'm gone' but that view to the South was breathtaking.

After lunch we continued on up the trail. There were several groups of people we encountered going up and coming down. But one group of about 8 high school students in particular did stop and was interested in what we were doing. After about 10 minutes or so of giving a brief history about ferns we were both on our way. Several ferns that I was excited to see in their natural habitat were:

Dryopteris expansa the northern wood fern and rather sparse in this area.

Polypodium glycyrrhiza the licorice fern. I can never get enough of this epiphyte.

Asplenium trichomanes Just plain cute growing in rock crevices where you would think nothing would grow.

Selaginella wallacei after the Danish botanist Nathaniel Wallich Graceful flowing fronds.

Several hikers made it to the falls about 3 miles up the trail about a 1200 ft. elevation gain for a good workout. We all ended up meeting at the bottom of the trail for some a fresh drink, snack and some quick observations.

Off of Richie's list I checked off 19 ferns that we observed. We'll all have memories of this hike I'm sure for many years to come.

Our next hike will be August 19th, 2017 to Twin Falls on the other side of North Bend. More information will be sent about the hike in a future E-mail.

We look forward to seeing you then! (Photos courtesy of Forrest Campbell)

Jeopardy

Jo Laskowski ~ Seattle, WA

Answer: Plants in pots are in a limited amount of soil that holds a limited—a really pretty small—amount of water. When leaves are expanding in the spring and pulling water quickly, sometimes there's not enough water available in the pot. A leaf can fail to fully unfurl because of that limitation, and may show considerable distortion. Potted rhodies require attention during their active growing period in the spring.

Question: How to explain leaf tip damage in container-grown rhodies?

Answer: Root weevil adults are all female, who begin laying eggs 3 to 4 weeks after emerging from their overwintering. After hatching, larvae burrow into the soil and proceed to feast on the roots, which can cause extensive damage to plants, and possibly their death. The adults, meanwhile, come out of their daytime hiding places and move to the leaves at night, where they leave tell-tale notches along the leaf margins. Leaf-cutter bees are kin to mason bees, the difference between them being that leaf-cutters use plant material for their nest construction, and masons use mud. Leaf-cutters are known to help themselves to rhody tissue for their construction projects.

Question: What are some of the pesky critters that mess with rhodies?

Answer: Rhododendrons are not voracious feeders. Fertilizing can be linked to two calendar events to help you remember, Valentine's Day and Mother's Day.

Question: What's the best time to fertilize?

Answer: One of THE most important site characteristics is GOOD drainage.

Question: What kind of conditions suit species rhododendrons best?

Answer: 40% fine bark / 40% coarse bark / 20% lava rock.

Question: What are the ingredients and ratios in the potting mix used in the containers?

Answer: Rhododendron seed is obtained from the American Rhododendron Society. Plants are propagated from cuttings taken on site. Material that has been collected during trips to China is used.

Question: Where does the propagation material come from?

Answer: Sudden Oak Death, caused by *Phytophthora ramorum*, is spreading northward from California. Global warming appears to be accelerating its movement. Alcohol is used to help prevent its introduction on footwear.

Question: Why is alcohol sprayed on the soles of everyone's shoes before walking the nursery/garden?

Answer: “*Rhododendron sanguineum* ssp. *sanguineum* var. *haemaleum*: Here’s the darkest of the reds with flowers that approach black! Sounds strange until you see this plant in bloom, especially if it’s backlit by the sun. The flowers **GLOW**. Better still, it’s a dainty shrub, well rounded with leaves that have a silvery gray white underside, but it’s really good at drawing attention to itself. This beauty wants a bright spot-but insists its roots stay cool. Hot sun is not its favorite. Best grown in morning sun or on a north facing site. Small amounts of fertilizer on Valentine Day and Mother’s Day. Good drainage (perfect is better). This rhododendron may reach four feet in ten years. It blooms in May.”

Question: What did the author buy at a species rhododendron nursery located on the Olympic Peninsula, WA?

Answer: All rhodies are carefully nurtured up to two-gallon containers before being offered for sale. Each plant carries a tag bursting with information. The tags reflect the careful observations made by the owners, Bob Zimmerman and Beth Orling. It’s not a stretch to say the tags abundantly reflect their love of the plants. The garden was established in 1976, shortly after a singular passion about species rhododendrons was established. And on Saturday, April 19, 2017, **Chimacum Woods** was where a group of Hardy Fern Foundation members and guests were treated to a great little talk and a walk through the impressive collection of rhodies. Visitors are welcome—don’t you think you should go?

Question: Where is no rhody sold before its time, and every plant has a story?



Rhododendron sanguineum Larson - Photo courtesy of Bob Zimmerman

Hardy Woodland Orchids and Companion Plants

by Kathryn Crosby and Arlen Hill

From the freckled, pouched faces of *Cypripedium* to the star-faced textures of *Podophyllum*, Arlen Hill's lush display garden inspired a group of twenty Northwest gardeners to want to grow many stunning woodland gems.

On May 27 this sold out HFF class gathered at Keeping It Green Nursery and Gardens for a tour and talk on hardy orchids and other uncommon perennials by nursery owner Arlen Hill. The day was warm and sunny. The setting was a quietly spectacular woodland garden Arlen continues to build and refine at his nursery near Stanwood, Washington.



Palette of *Podophyllum*

Tearing people away from the neatly arranged sale tables took time, but once the group was gathered, words began to fly: "What's that over there?", "How long will it bloom?", "What can you tell us about the growing conditions?" For the next hour and a half the group wound slowly through the sun and shade, while Arlen responded to a steady barrage of questions. While hardy orchids were our focus, many Rodgersia, Arisaema, Primula, Podophyllum, and ferns provoked curiosity and surprise.

When tapped for a story about this event for the Quarterly, my scribbled notes were clearly not sufficient. I asked Arlen, whose plants have an ever increasing presence in my own garden, for a helping hand. I revisited questions and he reviewed the answers. It went something like this:

Kathryn: *I love my clump of Cypripedium. Let's start there...*

Arlen: *Hybrid Cypripedium or Lady's Slipper Orchids are very adaptable to a range of garden conditions. One of my favorites, a sturdy grower, is Cypripedium 'Ulla Silkens' (Cypripedium reginae x flavum). Cypripedium reginae is native to the Northeastern North America while Cypripedium flavum is native to Western China. This hybrid was registered in 1996. Because several flower forms exist for both species there is quite a bit of exciting variation in each individual. This hybrid blooms after Cypripedium flavum and before Cypripedium reginae. For best results plant in an open site that is sheltered from the hotter afternoon sun. Plants can handle direct sun but flowers tend to scorch*

or fade much faster. Plant in a good humus rich soil that does not dry out too much during the summer. Avoid planting too close to large trees since plants don't do well with too much root competition.

Kathryn: How many *Cypripedium* do you offer at the nursery?

Arlen: KIGN offers many different hybrids and species of *Cypripedium* however our availability varies between seasons. Some of my favorites are *Cypripedium kentuckyense*, *Cyp. formosanum*, *Cyp. 'Dierich'*, *Cyp. 'Phillip'*, *Cyp. Emil*. Some of the easier growing orchids consistently available are *Cypripedium*, *Dactylorhiza*, *Gymnadenia*, *Pleione*, *Bletilla*.



Cypripedium 'Ulla Silkens'

Kathryn: You noted a fragrant orchid. Which one?

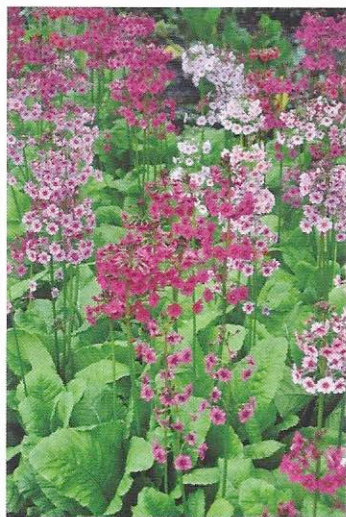
Arlen: *Gymnadenia conopsea* is a fragrant orchid. It is related to the better known European Marsh orchid and is native through Europe and Asia. They have numerous small clove scented pink flowers on tall spikes to about two feet tall. On a warm day the scent is noticeable a few feet away. These too prefer a good rich soil that does not dry out much during the summer and gets at least a half day of sun. Hot afternoon sun tends to speed the flowering process.

Kathryn: We spotted *Bletilla* orchids starting to bloom.

Arlen: Yes, the hardy Chinese ground orchid is most commonly known as *Bletilla*. There are more than a handful of species native to Asia and a variety of hybrids. *B. striata* usually starts flowering in late May but *B. ochracea* is later and blooms in June to July. *Bletillas* have a long flowering season with blooms opening in succession up the stalk. Plant in full sun to part sun for best flowering. And provide summer water.

Kathryn: Many tall *Primula* gave ribbons of color to the front of your borders.....

Arlen: The majority of the *Primula* in full flower in late May were japonica with crimson, dark pink and light pink. Also *primula pulverulenta*, *beesiana*,



Primula japonica mix

bulleyana, and the hybrid *bullesiana*.

Flowering now are the fragrant *Primula florindae*, *waltonii*, *wilsonii* and *poissonii*. These have more of a bell like flower. The later three species are evergreen and tend to be more clumping and less self-sowing. And they extend the season.

Primula japonica types can tolerate shade or sun as long as they are not allowed to dry out in the summer. These are best when allowed to naturalize and form large drifts rather than planted as an individual plant. Each plant will have flowers for one to two months. I like to plant with moist tolerant iris such as *I. siberica* hybrids, *I. forrestii*, *bulleyana*, *chrysographes*, *clarkei*, and even *delavayi*.

Kathryn: Since we're fern lovers, tell us about ferns, especially that very tall one....

Arlen: The large fern was *Pteris wallichiana*. *Pteris wallichiana* is great for those who love massive tropical looking ferns but don't want it to take over. It is native to the Himalayas and grows at moderately high elevations with fronds reaching 6'. In the wild, plants grow in wooded thickets and scrubby hillsides. Grow in part sun and humus rich, moisture retentive soil.

Foliage is a big deal for me and I approach selecting foliage as I would a flower. I am drawn to plants with bronzy new growth and there are some ferns with this attribute. There is an evergreen *Arachniodes* sp. from China that emerges with brilliant orange to pink to bronze coloration and turns a deep green. Fronds can reach two to three feet tall.

Many *Blechnum* species have great texture and red new growth. Two of my favorites in the garden are *Blechnum novae-zelandiae* and *Blechnum wattsii*. They are also evergreen down into the mid to upper teens but hardier to much colder temperatures.

We have sporelings coming on of *Arachniodes* sp., *Pteris cretica* from China and Tibet, *Coniogramme* species and some interesting *Blechnums*. They should be available next spring.

Kathryn: Tell us when your nursery is open and what's available.....

Arlen: We are open April through June, but it's well to check our website for days and times. A good representation of what we grow is on the website but many plants are not offered through the website. Seeking out a plant sale or coming directly to the nursery are the best way to see more of what we offer. For a list of plant sales I do, see: keepingitgreennursery.com. You'll also see our nursery catalog there. Most plant entries include a photograph, growing conditions, attributes, notes, and companion plants.

In addition to what we've already talked about, some of my favorite offerings are species *Acer*, species *conifers*, species *Paeonia*, *Trillium*, *Erythronium*, *Rodgersia* and *Arisaema*.

On the note of foliage my favorite group of plants are *Berberidaceae* which includes *Podophyllum* and *Epimedium*. *Podophyllum* has a lot of variation potential and combinations.

Kathryn: *You've recently been plant hunting in China. Are any of these plants available?*

Arlen: *We have some of our collections from my 2013 and 2015 trips to Sichuan, Guizhou, Gansu provinces in China available at the nursery. Next up is a 2017 plant hunting trip to India.*

Kathryn: *A big thank you, Arlen, for giving HFF a first time offered talk on hardy woodland orchids and companion plants. Seeing how happily these hard to find plants grow during our Keeping It Green Nursery tour has opened our eyes to exciting new additions to any woodland garden. Let's do it again! (Photos courtesy of Arlen Hill)*

The Fern Tour of Japan – November 2016

Part 2 Southern Area

Daniel Yansura ~ Pacifica, CA

Saturday Oct. 8 – Shingu and the Forest of the Floating Island

In the morning we took an early train to the Sendai airport, and after 1.5 hrs of flight, landed at the Kansai airport just south of the city of Osaka. At the airport we met Mr. Ichiro Yamazumi, who most of us remembered as our guide in this area on the 2014 tour. We then boarded a private bus, and proceeded to drive along a coastal road from the airport on the northwest side of the Kii peninsula to the southeast side and the city of Shingu. The bus ride took a few hours, but everybody enjoyed it as the route took us along a beautiful mostly undeveloped part of Japan's coast. Inland, it was mountainous and we would sometimes drive through lush green, mossy regions for short distances. Spotting the unmistakable *Dicranopteris* from the bus suggested we were now in a more subtropical region and that we were in for a fern treat for the next few days.

When we departed our bus in Shingu, we were unexpectedly hit by the heat and humidity. None of us were expecting this—we hadn't realized the bus was air-conditioned. The city, although very much a working class town, is rather small and quaint, and it serves as an entrance to the ancient pilgrimage routes, Kumano Kodo. Over the next few days we enjoyed our evenings, walking the streets of this coastal town in search of restaurants or shops.

After unloading our luggage in the lobby of the New Palace Hotel, we gathered at the entrance and then slowly walked a few blocks to a small park called The Forest of the Floating Island. This is an actual island of peat that floats on a pond, and the peat provides a substrate for plants, including many ferns. We walked around on a series of boardwalks and were all amazed at how many ferns were growing here. *Thelypteris interruptus* was growing right in the shallow water, while *Pyrrosia lingua* was attached to logs just above the water line. *Lepisorus thunbergianus* grew on just about everything, including woody shrubs and concrete retaining walls. *Asplenium normale*, with its long

trailing fronds, grew on the wet ground, while *Davalia tyermannii*, an escapee from cultivation, attached itself to the mossy retaining wall. And finally *Psilotum nudum* and *Lemmaphyllum microphyllum* were found growing on tree trunks. It was all a little overwhelming to see such fern diversity in such a small and rather odd environment.

We walked slowly back to our hotel in the humid heat and were surprised to see a crested *Pyrrhosia lingua* growing in a pot in someone's front yard.

Sunday Oct. 9 – Nachi Waterfall

Today was our first full day of ferning on the Kii Peninsula, and I was pretty excited to see what we would find. Fortunately it had cooled a bit overnight and, despite some early rain, the weather was perfect. Before we left our hotel, we met Mr. Ohora, Mr. Kajiwara, and four members of the Nippon Fernist Club, who would be our local guides. It was also a real pleasure to meet again Yoko Iguchi and Misao, both from our 2014 tour.

We took a short bus ride into the coastal forest and then started our first hike into a wooded valley. In a warm and wet area like this, you would expect to find many ferns, and we were not disappointed: an explosion of fern diversity greeted us. Our first sighting was *Diplazium hachijoense*, a relatively large, attractive fern with 2-3 ft fronds. The scrambling fern, *Dicranopteris linearis*, was soon found, as well as

Pteris semipinnata, *Arachniodes sporodosora*, *Plagiogyria adnata*, *P. japonica*, and *Leptochilus elliptica*. *Deparia lancea*, with its simple frond (4-6 inches), was especially attractive to many in the group and quite different from the *Deparias* we saw in the north. *Odontosoria chinensis* with its wedgelet pinnae was fairly common, and one small colony of *O. biflora* was observed, unfortunately too far over the edge of a drop-off to



study. Seeing *Angiopteris lygodiifolia* on the trail was a major surprise for all of us, and we spent some time looking at the large plants. Near the *Angiopteris* we noticed a large beautiful fern with shiny green fronds, *Asplenium wrightii*. (photo left) This fern was fertile, and a small piece of frond produced copious amounts of spore. On vertical rock walls next to the trail we found beautiful clumps of glossy *Haplopteris flexuosa*, (photo top of page 68) as well as *Asplenium tripteropus* and *Loxogramme salicifolia*,

which unfortunately was not fertile. The filmy ferns *Hymenophyllum polyanthos* and *Crepidomanes minutum* covered rocks and tree stumps and they delighted all of us. Before returning to the bus we also observed *Selaginella involvens*, *Davalia mariesii*, *Denmstaedtia hirsuta*, *Deparia petersenii*, *Asplenium boreale*, and the large ferns *Diplazium dilatatum* and *Pteris wallichiana*.



After lunch we drove to a popular tourist site, the Nachi Waterfall. The walk down the steps to the waterfall viewing area was busy with predominantly Japanese tourists, and most of our group clung to the side rails to avoid the crowds and see as many ferns as possible. Interestingly, one of the most common ferns was *Asplenium wrightii*, and they were mostly small sporelings. This boded well for me, as I was hoping to propagate this fern from spore, and the abundance of small sporelings on the ground suggested it might be easy. When we finally reached the viewing area, we were delighted to see the 400 ft. waterfall and the throngs taking pictures. Our eyes however, were quickly diverted to a large 5 ft. tall boulder immediately in front of us that

was covered with epiphytic ferns. It had a very large colony of *Loxogramme salicifolia* that was interspersed with *Hymenophyllum polyanthos*, *Crepidomanes minutum*, *Lemmaphyllum microphyllum*, and moss. The *Loxogramme* had fertile fronds, the first we had seen so far. Because we were in the midst of a crowd of tourists, though, we refrained from collecting spore.

Our bus then took us on another excursion into a nearby little village, where we walked toward a small drainage channel at the edge of a steep forested incline. In contrast to our last stop, this was not a touristy spot, and nobody was around. We climbed partially down one level of the drainage channel and discovered some new ferns, *Neocheiropteris ensata* (photo above left) and *Humata repens*. Here we were comfortable collecting a few small ferns.



Before heading back to our hotel for the night, we toured a beautiful Japanese garden in the village, with huge 3-5 ft. high boulders strategically placed along gravel pathways. The boulders had some moss and lichen on the surface, but their main attraction was the prolific growth of *Selaginella tamariscina* on almost all of them. (photo above right) These *Selaginellas* had thick stems up to 5 inches tall with a beautiful green rosette on top, while the roots anchored into a thin layer of moss.

Our final stop for the day was to see the Hayatama-taisha Shrine, which was a very developed site with multiple buildings. After watching the Japanese tourists for a while, we individually went up to a particular small open shrine, clapped three times, rang the bell, and bowed. Then, sitting down on a curb, our dream came true: beside us were several small *Ophioglossum petiolatum* ferns growing in the driest and most inhospitable place around.

Tuesday Oct. 11 – Tree Ferns and the Angiopteris Forest

On our final morning of ferning, with lots still left to see, we started with a drive along the Kumano River. After scrambling out of the bus, we all looked for ferns on a very steep rock face next to the road. *Odontosoria chinensis* was common, as well as *Adiantum monochlamys*, a pretty little maidenhair fern. *Lycopodium clavatum* trailed down the wall, rooting its runners whenever possible. Soon we found several *Thelypteris griffithii*, an interesting small fern we had not yet seen. It was very unlike most *Thelypteris*, having a single, wide blade with two smaller side pinnae down by the stipe. The netted veins made it attractive and some of the fronds were fertile. *Diplazium glaucum* also cascaded down the slope, and *Asplenium normale* was common near the base, often revealing small plantlets at the frond tips.

We then drove to have lunch at a nearby largely deserted temple with a 1500-year old *Cinnamomum camphora* tree. The walk from the bus was about half a mile and, to our great surprise, we found a colony of *Lycopodiella cernua* growing on the side of the road. With its size of about 2 ft. it was hard to miss, and we were pleased to see this treasure. When we reached the ancient tree, it was magnificent, as old as the redwoods in California, but with a convoluted and branching, massive trunk. A rope around the trunk, called a shimenawa, indicated that the tree is sacred. On the trunk we also noticed a large patch of *Loxogramme salicifolia*. In the attached gardens we found large specimens of *Neochiropteris ensata*, *Selliguea hastata*, and *Botrychium ternatum*.

We quickly moved on to our next site to see a very unusual fern. After parking in a small village, we walked a bit and then entered the forest. With no trail, we ambled slowly up the hill until we reached a small ravine. Climbing down, we followed it until we noticed an unusual looking plant, not unlike a small philodendron. This was *Cheiropleuria integrifolia*, a rare scrambling fern that was growing in the dim light. It seemed to have 3-4 major veins in the leaves rather than one, and it was quite attractive. We looked carefully but only found one fertile frond that was much longer and narrower than the non-fertile leaves.

Our fourth stop of the day was to see one of the two tree ferns we would encounter on the tour, and I was the first one off the bus. We entered a small bowl in the forested landscape and quickly spotted a few *Cyathea spinulosa* tree ferns growing above the understory foliage. The largest was 8 ft. tall, and it had a skirt of dead fronds covering the trunk. Some of the fronds were fertile, but the spore had all been released. As a last resort, I collected a few fertile pinnae, crushed them that evening, and eventually sowed the densest fraction of the debris. Fortunately I now have a good number of healthy gametophytes coming up.

Our next stop was a short distance away where we parked by the side of the road, walked across a field to a vertical rise, and then viewed *Neochiropteris ningpoensis* growing on a rocky bank. It was similar to *N. ensata*, but had a smoother texture and

lacked the pronounced veins.

As the day was ending we visited our final site, a cedar forest owned by Mr. Shoji, a friend of Mr. Ohora. Entering a small trail from the road into a forested valley of very tall and straight cedars, we were awed by the sight: the whole area was covered with *Angiopteris lygodiiifolia*. The largest plants had fronds to 8 ft. and rhizomes the size of pumpkins. Although smaller than *A. evecta*, these were still impressive ferns, and the most northern and hardy of the genus. Most of the plants were fertile, and small sporelings could be seen growing on the banks of the trail. Why these ferns were so highly concentrated here was a mystery, but once the ferns get large they must shade out most other plants. Farther along the trail we spotted *Cyathea hancockii*, a trunkless tree fern with nice, dark green fronds. It was fertile, but with just one night left before flying home, there was little time to get the spores released.



Wednesday Oct. 12 – Departure Time

In the morning we all departed in different directions. Some of us went directly by train to the Narita airport near Tokyo for flights home or otherwise. The rest took the train to some other destination in Japan to extend their visits a bit longer.

Conclusion

Over all, it was a very exciting, rewarding, and memorable tour. We had 10 days of excellent ferning; we enjoyed beautiful scenery and visited numerous, mostly deserted, shrines; we ate fantastic Japanese food; and of course we all enjoyed each other's company.

While I listed some of the ferns we saw on the trip, there were many more that I did not mention. Tim Pyner kept a very good record of the ferns we saw daily, and created an immensely useful list, which he distributed to all in the group, and which he will hopefully present in the future in a BPS publication. We saw a total of 213 species of ferns, lycophytes, and a few hybrids, which is only a fraction of the approximately 600 known species in Japan. In the north we observed 96 species, while in the south the number was 143, and 26 species were found in both the north and the south.

We are very grateful to Kazuo Tsuchiya, Asher Ramras, and Marilyn Tsuchiya from Japan Specialized Group Tours for organizing and leading a very enjoyable tour. We would also like to gratefully acknowledge our Japanese hosts, Mr. Sahashi, Mr. Hisato Yamada, Mr. Yuki Ueno, Mr. Ichiro Yamazumi, Mr. Ohora, Mr. Kajiwara, and other members of the Nippon Fernist Club, who led us to the fern-rich areas and provided us with the lists of ferns we might see at each site.

Richie's Ireland – United Kingdom Travelogue

June – July 2016 ~ Part 4 – Conclusion

Richie Steffen – Federal Way, WA

July 7, 2016 Thursday - Brantwood House

The last three days of the British Pteridological Society's 125th Anniversary Field meeting focused on garden tours. We spent much of today at Brantwood House, near Coniston in the Lakes District of England. This grand estate was the home of W.J. Linton who wrote *The Ferns of the English Lake District* and encouraged fern growing in the garden. The next owner, taking ownership in 1871, was John Ruskin a noted art critic of the Victorian Era as well as a prominent social thinker and philanthropist who continued to expand the garden. Our tour was led by estate manager, Sally Beamish, a long-standing member of the BPS. The cultivar collection was being actively developed with several expanded plantings.



Brantwood House



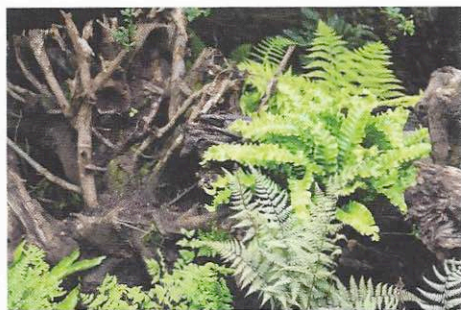
Giant rhododendron

Much of the estate was woodland. Walking the trail, we saw a number of ferns from the confusing and similar looking *Dryopteris affinis* aggregate. There were four representatives found from the aggregate, three fairly common and similar looking - *Dryopteris affinis* and *D. borrieri*. The third, more distinctive and easier to tell apart with its unique crimped pinnae, was *D. affinis* subs. *paleaceolobata* and the fourth, a single plant of *D. × complexa* with huge haphazard fronds that rose high above the surrounding typical *D. affinis*. The *D. × complexa* looked much different than what I am used to seeing in cultivation and I am curious to see more of it in the wild on future trips.

We returned to the hotel for dinner and Hardy Fern Foundation board member Pat Riehl gave the evening lecture on creating her stumpery on Vashon Island. Most of the attendees have not seen her stumpery and were interested to see an American view of the English tradition.

July 8, 2016 Friday - Sizergh Castle and Holehird

Today was a day of gardens and ceremony. We started the day at Sizergh Castle, a National Trust property which houses the national collections of *Osmundas*, *Cystopteris*, *Dryopteris* cultivars, and *Asplenium scolopendrium* cultivars combined with a sizable collection of *Athyrium* cultivars. Over the last year the gardeners have been planning, designing and building a new stumpery garden which had just been finished for this the BPS Field Meeting. Sue Olsen, founder of the Hardy Fern Foundation and I were asked to participate in the ribbon cutting ceremony. After a few words by the owner of the castle, Henry Strickland. I gave a few words on behalf of the HFF and Sue opened the stumpery.



After the ceremony we were treated to lunch at the castle. The staff packed a lunch for Sue and me since we were returning to the hotel to change for the afternoon garden tours.

The afternoon was spent at Holehird, a garden run by the Lakeland Horticultural Society and home of one of three national collections of *Polystichum* as well as *Astilbe* and *Meconopsis*. The garden was well taken care of by a team of volunteers and featured a walled garden with long perennial borders and a hillside of tree and shrub plantings that provided shade to the fern collection.



We walked through the *Polystichum* collection composed mostly of *Polystichum setiferum* cultivars with a few *Polystichum* species. Some ID's were vigorously debated by a few BPS members. These debates are always interesting to listen to and often reveal

key features that distinguish rare and uncommon cultivars. Near the collection was a stunning vista across a valley with mountains on the far side. Below the hill was the *Astilbe* collection. We were about a week early to see it in full bloom, but many of the cultivars were showing color. After walking the garden, the Lakeland Horticultural Society treated the group to coffee, tea and cake in celebration of the special anniversary. We returned to the hotel to prepare for the evening farewell banquet.

The evening banquet had several special guests attending from additional local BPS members to the Bolton family (Bolton was one of the founding members of the BPS). At the end of the banquet I had the opportunity to speak on behalf of the Hardy Fern Foundation to recognize the long relationship the two organizations have had together and present a gift to the officers of the BPS. After much talk and farewells we were off to bed.

July 9, 2016 Saturday - Private Fern Gardens-

Orchard Cottage and Pear Tree Cottage

This was the farewell day with the opportunity to visit a few gardens before setting off to our post meeting tour of SW Scotland. This morning two private gardens owned by BPS members were open for a brief tour, Orchard Cottage, home Shirley and Chris Band and Pear Tree Cottage, home of Linda and Alec Greening. Alec was the primary planner of the national field day event.

It was a rainy morning. Sue, Loyd and I set off, but soon made a wrong turn which lead us through several extremely narrow twisty roads allowing us to visit only one of the three gardens, Orchard Cottage. The garden was in a small rural village and quite the series of garden rooms and designed spaces with a peek-a-boo view through a dense hedge into the neighbor's cow pasture. I forgot to clear off my camera memory card the night before so I soon filled the card for the day. The garden had a nice collection of plants well blended into the fern collection.

Fortunately, earlier that week we were able to tour Linda and Alec Greening's garden, Pear Tree Cottage. Coincidentally, it rained that evening as well! Pear Tree Cottage was spectacular! It was a seamless joining of plant collections in aesthetically beautiful combinations. The garden is often open for tours and is well worth seeing. As a special treat there were several exceptional selections of ferns including a rare division of the original clone of *Athyrium filix-femina* 'Victoriae', often seen in gardens through its similar, but inferior sporelings. The two stars of the garden were nice divisions of the extremely rare and choice *Polystichum setiferum* 'Plumosum Drueryi' and *Athyrium filix-femina* 'Plumoso Drueryi'. These lacey and graceful ferns are a treat to see. Unfortunately, it was raining too hard to get a photo of either fern. It was too bad not to visit again, but I will look forward to returning to this garden in the future to see how these ferns mature with time.

We left the Lakes District for a long drive north and west to the city of Stanraer, on the shores of Loch Ryan on the west coast of Scotland. It rained for much of the trip and as we drove toward to coast it became quite foggy, but just before we arrived in Stanraer the weather cleared up and the sun came out for a nice end to the day.

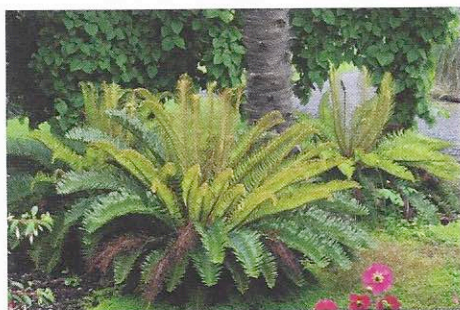
July 10 Sunday Logan Botanic Garden

The next morning, we made a short drive to Logan Botanic Garden arriving shortly after they opened. The botanic garden is located on the far southwest tip of Scotland in a protected location with a warming influence of the Gulf Stream current running through the Irish Sea. It is a satellite garden of the Royal Botanic Garden of Edinburgh and is home to many collections of Southern Hemisphere plants.



As soon as we entered the garden it was apparent the garden was going to be an amazing delight. We were greeted by plantings of the very rare *Blechnum palmiforme*, the palm leaf hard fern. The thick dark evergreen leaves surrounded the new growth which is covered in golden colored scales. Beside these ferns was a spectacular specimen of *Metrosideros excelsa*, New Zealand Christmas tree, decked out in brilliant red brush-like flowers. Every bend in the trail revealed

new and rare trees and shrubs with an array of choice tree ferns we can only dream of having. All three of us were busy taking photos and moved along the path very slowly trying to capture a small bit of the garden's beauty. I was captivated by the number and



selection of rare conifers in the collection with graceful examples of one my favorite conifers (that I cannot grow!) the New Zealand rimu, *Dacrydium cupressinum*. Following this was one of the largest hydrangeas I have ever seen, a lacecap type called *Hydrangea heterophylla*, that was over 25 feet tall with a trunk about a foot wide. I recently planted one of these at the Miller Garden. I'm hoping it will grow the same way.



Dacrydium cupressinum

As the richly planted beds opened to swaths of lawn the edges were lined with huge plantings of *Blechnum chilense*, Chilean hard fern. This fern grows well at the Miller Garden and was introduced to North America by Mrs. Miller. To see it growing in such large quantities was truly impressive. Near this was a patch of gunnera that covered over half an acre and grew over 12 feet tall. There was a path going through the center allowing you to experience a gunnera forest!



Hydrangea heterophylla



After lunch we walked through the walled garden. Lined with perennials, small trees and shrubs this area radiated with texture and color. One side was planted with acid loving plants featuring many rare and uncommon Ericaceae (rhododendron and heather relatives). In a protected corner a spectacular *Cyathea medullaris*, black tree fern, grew with inky black stems opening to broad green fronds. We continued to wonder the garden until closing time. It was a great day in an unforgettable garden!



Once we returned to the car, we had another long drive ahead of us. We were heading north along the coast to the town of Dunoon on the Cowal Peninsula. It was mostly small roads with beautiful scenery. To get to Dunoon we needed to take a short and very small ferry, and we arrived just as they were loading up and drove right on with hardly a minute wait. Once on the other side of the water it was a short drive to our hotel.

July 11 Monday - Benmore Gardens, Wardlaw Garden

Today's plan was to visit two renovated Victorian ferneries at Benmore Botanic Garden and Ascog, but we received a message from longtime BPS member and major fern collector Alastair Wardlaw asking if we would stop by his garden near Glasgow before leaving for home. We immediately adjusted our plans to make time for the visit by eliminating Ascog due to the long drive and ferry needed to get there.

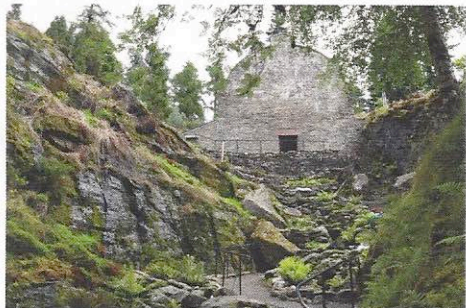
We arrived at Benmore just after opening. Benmore, like Logan Botanic Garden, is a satellite garden of the Royal Botanic Garden of Edinburgh. Built on hillsides the garden offers dynamic topography and spectacular views. Upon entering the grounds, you are greeted by an avenue of giant Sierra redwoods, *Sequoiadendron giganteum*. There were a surprising number of fully mature conifers native to Western North America, many over 150 years old. The original owner of the property, The Younger family, paid for collection trips of several famous plant explorers, including David Douglas and E.H. Wilson. There was also an impressive collection of massive *Rhododendron*, representing seedlings from some of the earliest collections. This garden truly represented a slice of gardening history from the NW United States.



As we wound our way through the garden we passed a moss and lichen garden as well as a moss and liverwort garden, two interesting ideas I will have to consider for my new garden.

Soon we approached the renovated fernery. Tucked into a shade cleft in a hillside the fernery is high above the garden trail with a trail cut through the stone that zigzags up to the building. As we made our way up the trail we met one of the Benmore gardeners (Angie) who recognized Sue's name and was delighted to show off the fernery and called

the garden's curator, Peter Baxter, from the garden to meet us. (Sue Olsen and Loyd Jacobs below) After a thorough tour through the fernery we exited through the upper trail that climbed the hillside through the recently planted Tasmanian forest. We then explored the garden as we made our way back to the gift shop and café for lunch.



The next and last stop of the trip was to Glasgow to visit the Wardlaws. Sue had been to Alastair and Jackie Wardlaw's home before and paved the way for Loyd and me to be welcomed with open arms. Alastair has created a magnificent collection of rare and unusual species and cultivars of ferns and is known for creating special micro-habitats that have allowed him to grow plants typically tender for this area in Scotland. Unfortunately, we arrived rather late in the day and had to see the garden rather quickly before leaving for dinner. The Wardlaws had arranged for dinner at a nearby restaurant and we had a delightful evening talking with them both. It was a great decision to visit them and spend time reaffirming old friendships and creating new ones. Overall it was a perfect way to end our tour of Ireland, England and Scotland. We reluctantly left and drove off to find our hotel near the Glasgow airport to prepare for the long flight home.



Hardy Fern Foundation Fall Social & Potluck Lunch

Saturday, October 21, 2017

Members and their guests are invited to our annual Social and Potluck Lunch

11:00 am to 3:00 pm at the Bellevue Botanical Garden

12001 Main Street, Bellevue, WA 98005

Featuring:

.-Guest Speaker John van den Meerendonk

- A Fern Frond Showcase by Richie Steffen of the Miller Garden

.-Fern Sale with experts on hand to answer your questions

-Book sales and signings of *The Plant Lover's Guide to Ferns* by Richie Steffen and Sue Olsen and *Encyclopedia of Garden Ferns* by Sue Olsen

.Potluck Lunch Please bring a favorite main dish, salad, or dessert to share.

RSVP To Jo Laskowski at hff@rhodygarden.org with the number of guests and the type of dish you plan to bring.

Hardy Fern Foundation 2nd annual Fall Sale

Saturday, September 16, 2017

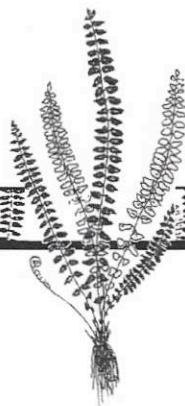
9:00 am to 3:00 pm at the Bellevue Botanical Garden

12001 Main Street, Bellevue, WA 98005

It's the perfect time of year to pick up all of your ferns for fall planting!



THE HARDY FERN FOUNDATION QUARTERLY



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Corresponding Secretary: Pat Riehl

Treasurer: Nancy Strahle

Board Members:

Forrest Campbell	Charles Ogburn
Susie Egan	Linda Pyles
David Gibson	Diane Thompson
Daniel Mount	Meredith Smith
	Jane Whiteley

Honorary/Advisory Members:

Naud Burnett	Carolyn Doherty
Jerry Doherty	Joan Gottlieb
James Horrocks	Nils Sundquist

Members at Large:

Sue Olsen

