

**Hardy Fern Foundation**  
**Quarterly**



**Spring 2021**

## THE HARDY FERN FOUNDATION

P.O. Box 3797  
Federal Way, WA 98063-3797  
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;  
Bartlett Arboretum & Gardens in Stamford, Connecticut; **NEW 2020!**  
Bellevue Botanical Garden, Bellevue, Washington;  
Birmingham Botanical Gardens, Birmingham, Alabama;  
Cornell Botanic Gardens, Ithaca, New York;  
Dallas Arboretum, Dallas, Texas;  
Denver Botanic Gardens, Denver, Colorado;  
Dixon Gallery and Gardens, Memphis, Tennessee;  
Ganna Walska Lotusland, Santa Barbara, California;  
Georgia State University Perimeter College Native Plant Botanical Garden, Decatur, Georgia;  
Inniswood Metro Gardens, Columbus, Ohio;  
Lakewood, Lakewood, Washington;  
Lewis Ginter Botanical Garden, Richmond, Virginia;  
Powell Gardens, Kingsville, Missouri; **NEW 2020!**  
Rotary Gardens, Janesville, Wisconsin;  
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**

# THE HARDY FERN FOUNDATION QUARTERLY



### **The Hardy Fern Foundation Quarterly**

is published quarterly  
by the

**Hardy Fern Foundation**  
P.O. Box 3797  
Federal Way, WA  
98063-3797  
253-838-4646 ext. 111

Articles, photos, fern and  
gardening questions,  
letters to the editor, and  
other contributions are  
welcomed!

*Please send your  
submissions to:*

Sue Olsen  
2003 128th Ave SE  
Bellevue, WA 98005  
foliageg@gmail.com

#### **Editor:**

Sue Olsen

#### **Graphics:**

Willanna Bradner  
(cover design)  
Lori Gibson  
(quarterly design)

#### **Website Administrators**

Lori and Dave Gibson

## BOARD OF DIRECTORS

**President:** Richie Steffen

**Vice President:** Michelle Bundy

**Immediate Past President:** John van den Meerendonk

**Recording Secretary:** Charles Ogburn

**Corresponding Secretary:** TBD

**Treasurer:** Nancy Strahle

### Board Members:

Forrest Campbell	Daniel Mount
Brian Collins	Rick Peterson
Kathryn Crosby	Linda Pyles
David Gibson	Pat Riehl
Jane Whiteley	

### Honorary/Advisory Members:

Naud Burnett	Jerry Doherty
Carolyn Doherty	Nils Sundquist

### Member at Large:

Sue Olsen

### Program Manager:

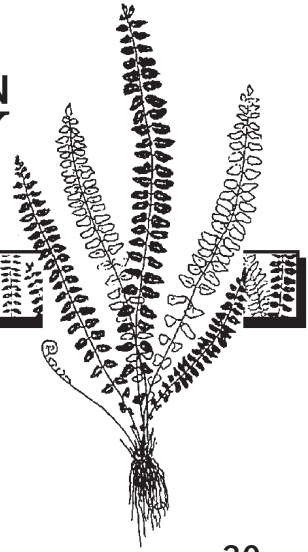
Dennis Beatty

# THE HARDY FERN FOUNDATION QUARTERLY

Volume 31  
ISSN 1542-5517

No. 2

Editor- Sue Olsen



<b>President's Message 2021 .....</b>	<b>30</b>
<b>Hardy Fern Foundation New Program Manager .....</b>	<b>31</b>
<b>An Overview of The Rhododendron Species Botanical Garden .....</b>	<b>32</b>
Steve Hootman, Director	
<b>The Fern Collection of the Hardy Fern Foundation: 2021 Inventory Report Part 1 .....</b>	<b>37</b>
Michelle Bundy and Richie Steffen	
<b>Fern Inventory Part 1 .....</b>	<b>40</b>
<b>The Fern Stumpery at the Rhododendron Species Botanical Garden Revisited.....</b>	<b>44</b>
John van den Meerendonk	
<b>Strolling from the Stumpery .....</b>	<b>50</b>
Sue Olsen	
<b>Hardy Fern Foundation 2021 Spore List - Updated 3/14/21 .....</b>	<b>53</b>
<b>We Wish to Thank Our Donors for Their Generous Support .....</b>	<b>59</b>
<b>Welcome New Members.....</b>	<b>60</b>

# President's Message 2021

## HFF Quarterly – Spring Issue

I think the only right way to start this President's Message is simply to repeat the first sentence of my last President's Message and hope for a better outcome.....

***"This issue of the Quarterly will reach you as we have turned the page from 2020 (and early 2021!) and look towards a very different and hopefully more stress free 2021."***

Welcome HFF to the spring issue of the Quarterly. This issue is primarily dedicated to the main HFF fern collection at the Rhododendron Species Botanical Garden. I hope you enjoy reading about the history and development of this collection and enjoy the first part of the HFF main display garden fern inventory. Although the pandemic continues to affect our in-person events, we will be doing our best to increase our online presence. Please keep an eye out for future webinars and meetings via Zoom.

Much of my spare time during fall and winter was spent enlarging my new garden space allowing for the addition of several ferns, perennials, trees and shrubs that have been in holding areas for far too long as well as planting several of last year's plant acquisitions that still needed a home. In these early days of spring, it has been enormously satisfying to watch plants added over the last few years grow and begin to thrive in their new home. My 10-acre property has clearly pointed out that creating drifts of plants is key in creating a cohesive garden. Last year, I invested in several flats of fern plugs of several different species and cultivars. When they first arrived, these were tucked into flats until large enough to be added to the garden. Over the last month, planting has begun of these once tiny plugs. New drifts of *Polystichum* × *dycei*, *Polystichum setiferum* 'Bevis', *Adiantum* × *tracyi*, *Polystichum makinoi*, *Athyrium otophorum* and *Arachniodes davalliaeformis* now make showy young flowing patches. The larger of these ferns will be planted en masse to create continuity with ribbons of soft green foliage while some of the smaller and more colorful ferns will be placed in smaller groups repeated throughout the garden space. This kind of mass planting has been a lesson learned for a plant collector who is used to purchasing plants one or two at a time.

I also have been learning my lesson about how to reach a wider audience during a pandemic. As many of you may be aware, the HFF has teamed up with the British Pteridological Society (BPS) to provide free monthly programs through the winter to our members through virtual Zoom webinars. This has been more successful than we could have imagined. Attendance for these events has been excellent and we have reached members around the world. We are now working with the BPS on repeating this series for next winter. To sustain these free member programs, we will begin a series of paid classes and lectures for this spring and summer. I hope you will check out these programs and enjoy them as much as the winter programs. These new events will be available to HFF members (at a discounted rate) as well as to the general public.

I hope spring is starting to happen in your garden and it is full of new fronds emerging from their winter slumber!

All the best,  
Richie

**Richie Steffen**  
HFF President



## Greetings Hardy Fern Foundation Members,

I would like to introduce myself as the new HFF Program Manager and share with you all a bit of my background and how I got into horticulture.

Since I was a child, I have loved forests and the plant life within. Growing up in the Adirondack Mountain wilderness of New York is the most likely culprit for this infatuation. Somewhere along the line, I drifted away from the fondness I held for the forest, and the many mysteries it contained. I left behind the densely packed canopy and headed toward the city to pursue a bachelor's in mechanical engineering with a focus in aerospace at the Rochester Institute of Technology. After some time working in the field, along with completing a master's in mechanical engineering, I moved to Seattle to be with my better half, Rebecca, as she finished her PhD at the University of Washington.

In 2016, soon after arriving in Seattle, I decided to find a temporary job while applying to aerospace companies in the area. As luck would have it, the first friend I made in Seattle led me to an opening at a landscaping company he worked for. A week into my tenure at Artemis Gardens and my love of plants was rekindled; there was no fighting it or turning away this time. My boss at the time, Deb Horn, and crew lead, Tom Flener, were a fount of knowledge: turning conifer to Western red cedar to *Thuja plicata*, shrub to Indian plum to *Oemleria cerasiformis*, and of course, fern to Western sword fern to *Polystichum munitum*. A whole new world was opening up in front of me that had always been there, I'd just never seen it; and I needed to learn more. Back to school I went.

My first quarter at Edmonds College started in the winter of 2017 with one class, conifer identification. Somewhere between counting the pine needles in a fascicle and learning there were plants named *Podocarpus* and *Cephalotaxus*, I looked around at my fellow classmates and despite the frigid temperature and constant rain, everyone was wearing a smile (Horticulturists must have the happiest profession, I'm sure of it). I steadily advanced my way through the horticulture courses at Edmonds while still working part time, first at Artemis Gardens and then at the Edmonds College greenhouse. I am happy to announce that I will be graduating in a few short weeks after my last winter quarter of classes. Uncontent with one degree, I will receive an ATA in Landscape Design, Ornamental Horticulture - Nursery/Greenhouse, and Sustainable Landscape Management while also receiving certificates in Landscape Horticulture, Nursery

Growers, and Urban Agriculture Production.

Near the end of my time at Edmonds, I was fortunate enough to have been accepted for an internship position at the Elisabeth C. Miller Botanical Garden, directed by HFF President, Richie Steffen. I have never learned so much in such a short amount of time, a deserved thanks to all of the Miller Garden staff for fostering such an immensely educational environment. This internship also led me to these pages, where I'm writing to you all as the new Program Manager for the HFF. Although I'll be sad when the end of June rolls around and my internship is over, I am excited to be able to commit my full focus and unique combination of skills to this amazing organization.

I've found my forest again; I hope you'll come exploring with me and the rest of the wonderful people that make the Hardy Fern Foundation possible. There's lots to discover and more yet to learn; let's get ferning!

All the best,  
**Dennis Beatty**  
Program Manager

## **An Overview of The Rhododendron Species Botanical Garden**

**Steve Hootman, Director**  
**Federal Way, WA**  
**Photos by Steve Hootman**

Rhododendrons are, after roses, the most widely-grown and popular shrubby plants in the world. The *Rhododendron* genus (a group of closely related species) is one of the largest in the plant kingdom in terms of the number of different species. There are over 1000 documented species in the genus *Rhododendron* and thus they are of great interest to scientists and conservationists as well as gardeners due to their extreme variability and adaptability. "Species" are those plants that are found growing naturally in the wild places of our planet, unchanged by humans and reproducing and maintaining their own wild populations. Conversely, the majority of rhododendrons seen in gardens and landscapes are hybrids that have been developed by humans who have artificially crossed various species with other species (and eventually other hybrids) to create plants with "flashier" multi-colored or larger flowers, superior cold-hardiness, etc.

The wild species rhododendrons occur naturally in a wide range of habitats throughout the world, primarily in the mountains and forests of Asia, Europe and North America with a few hundred tropical species in the mountains of SE Asia including Malaysia, Indonesia, the Philippines and Papua New Guinea. Additionally, two species have been found in the tropical mountains of northern Australia. Throughout the world there are many public gardens featuring the often more

flamboyant and easier to grow hybrid rhododendrons that have been developed by humans. We are the only botanic garden on the planet devoted specifically to the wild species rhododendrons. The Rhododendron Species Botanic Garden (RSBG) is, in a sense, a “zoo” for these wild plants, displaying some of the most interesting, beautiful and rare plants on the planet.



**RHODODENDRON SPECIES BOTANICAL GARDEN - SPRING**

The Rhododendron Species Foundation (which manages the RSBG) is a non-profit organization founded in 1964 to secure the finest authentic forms of *Rhododendron* species and to develop a comprehensive collection of this remarkable group of plants. This was an important goal and mission because at that time in North America, properly named and authentic species rhododendrons were very rarely available to gardeners, collectors or public display gardens. On the other hand, extensive collections of species were still in cultivation in the United Kingdom. These large and often famous, well-established old estate gardens had been among the original sponsors of the early plant hunters and were still growing the results of these initial exploratory collecting trips to the remote mountains of Asia.

Thus, the origin of the Rhododendron Species Foundation may be said to lie with a visit to England by Dr. Milton Walker of Oregon in March of 1964. The purpose of his visit was to explore the possibility of importing cuttings, many from the original wild plants, of the best forms of *Rhododendron* species growing in both public and private British gardens. The RSF's *Rhododendron* collection was first housed on Milton Walker's property at Pleasant Hill, near Eugene, Oregon but was soon moved to the

property of RSF board member P.H. (Jock) Brydon, near Salem, Oregon. By the fall of 1973 it had become apparent that the collection was becoming too large for the Brydon property, and an RSF committee met with George Weyerhaeuser (a relative of RSF board member Corydon Wagner), who was immediately and enthusiastically receptive to the idea of providing adequate space for the growing collection on the new Weyerhaeuser corporate campus in Federal Way, Washington. In 1974 the Weyerhaeuser Company generously leased at no cost a permanent site of 24 acres for the collection. The following year the collection was relocated from Salem to its permanent home in Federal Way where it has expanded and grown beautifully since that time. Since that time, the RSF has tremendously expanded its scope, its programs and its international outreach and has been functioning as a completely independent, 501c3 non-profit, conservation-based organization for several decades. The RSF is fully funded through gift shop sales and plant purchases, admissions, memberships, grants, donations, and our endowment.



**RSBG SPRING SCENE**

The RSBG is dedicated to the conservation, public display, and distribution of *Rhododendron* species. Home to the largest collection of species rhododendrons in the world, the Garden displays almost 700 of the 1,000 species found in the rapidly disappearing wild forests of the world. We serve as an exceptional resource for conservation, scientific, horticultural and educational communities worldwide. Utilizing our unique collection of plants, the RSBG provides education and exposure to the intricacies of the natural world through interpretive signage, guided tours, our website and numerous publications.

We also serve as the primary germplasm repository for the genus *Rhododendron*,

one of the largest genera of plants known to science. The vast majority of our accessioned collections represent documented material obtained from wild populations occurring in some of the most densely populated regions on the planet including the rapidly disappearing wildlands and forests of southeastern Asia where the majority of *Rhododendron* species occur. These wild populations are at extreme and immediate risk from extirpation and even extinction due to human activities such as land clearing, burning and fuel-wood consumption. We provide documented material to universities and scientists around the world. This material is used in phylogenetic and phylogeographic studies, etc. And, in a partnership with the University of Washington, we are sequencing the entire genome of the genus *Rhododendron*.

TODAY the garden and its ever-expanding collections have matured beautifully and you will note the many exciting and beautiful garden projects have been added or improved upon over the past several years. In addition to the recent opening of the Rutherford Conservatory, the Hardy Fern Foundation's Victorian Stumpery has



**MATTEUCCIA**

developed into the mossy, shaded and lush display of ferns and bold foliage plants that we had envisioned; the Blue Poppy Meadow has increased in beauty each year and brings in more visitors than any other single feature; the Magnolia grove had its first major flowering in 2013 and should improve tremendously each year as the trees gain in strength and age; the iconic Garden Gazebo has been completely rebuilt and is now accessible to the elderly and disabled; and the *Rhododendron* collection has been increased tremendously thanks to the numerous new introductions that have recently been made from such far-flung locales as Guangxi, Burma and Papua New Guinea.

As we head into the second half of our first century, we are in a better position scientifically, economically and professionally than at any time in our first fifty years of history. With the added stability of our increased endowment and an ever more beautiful garden, we look forward to a long and productive future.



MECONOPSIS HIMALAYAN BLUE POPPY - PHOTO BY STEVE HOOTMAN

In addition to the rhododendron collection the unique blue poppy meadow is a popular attraction in the garden. Blooming in the springtime it is celebrated annually with a “blue poppy day.” 🌸

Welcome to the Rhododendron Species Botanical Garden (RSBG), a 22-acre display garden and living plant museum with the largest collection of *Rhododendron* species in the world.

Rhododendrons exhibit more diversity than almost any other genus of plants on Earth. Found in a wide variety of ecosystems and habitats, rhododendrons range from tiny alpine species to towering 100-ft trees covered in flowers. The exceptional variety of rhododendrons has excited and intrigued botanists, scientists, gardeners, and plant breeders for over 150 years.

Rhododendrons are also an indicator genus, meaning that their extreme adaptability and variety can be useful in revealing trends in the broader environment. This makes the *Rhododendron* genus an ideal case study for examining the effects of global warming and ecological change.

*The RSBG aims to foster a deeper connection between people and plants. We hope that you find beauty, tranquility, and inspiration during your visit.*

# The Fern Collection of the Hardy Fern Foundation: 2021 Inventory Report Part 1

**Michelle Bundy and Richie Steffen**  
**Photos by Richie Steffen**

Soon after the founding of the Hardy Fern Foundation in 1989, the board strove to accomplish one of their priority missions, to create a comprehensive collection of ferns. To help facilitate this, the Rhododendron Species Botanical Garden (RSBG) offered to house the collection and have it planted among the RSBG collection of rhododendrons, ferns being a naturally complimentary perennial. In the spring of 1990, the first ferns were planted and included 189 ferns, accounting for 56 species and cultivars. Later in the fall of that year, an additional 115 ferns were added which brought the total to 304 ferns to begin the collection. All of these first additions were donated to the HFF and planted by volunteers. Over the years, the HFF has received numerous donations of rare and unusual ferns to add to the collection. Several interesting ferns have been donated to the HFF; some were more successfully integrated into the collection than others. One of the early donations was a collection of *Cryptogramma* given by the young, budding botanist Ed Alverson. This collection consisted of plants used for his Master's degree studies. Unfortunately, many of this



**POLYSTICHUM SETIFERUM (BEVIS GROUP) 'BEVIS'**

high maintenance species required demanding cultural conditions and were lost over the years; although, surprisingly, a few of these alpine ferns maintained themselves for well over a decade before succumbing to the environmental differences



**POLYSTICHUM NEOLOBATUM**



**DRYOPTERIS CYCADINA**



**DRYOPTERIS SIEBOLDII**

presented by the low elevation garden. The longevity of these few illustrate the importance of both the successes and failures of this important fern collection. We can learn to improve our cultural techniques and growing environments as well as experiment to increase our triumphs. HFF founder, Sue Olsen, also contributed greatly to the collection over the years by regularly donating spore, sporelings and young plants to be added to the collection. A couple of notable additions first introduced by Sue were the beautiful, shiny evergreen *Polystichum neolobatum*, which grows quite well in the garden and the extremely rare cut leaf form of royal fern, *Osmunda regalis* 'Decomposita'. A beautiful and vigorous selection that Sue received as spore from German fern collectors.

This list is a partial account of the HFF collection at the RSBG. Over the years, our fern collection has adjusted and grown along with the RSBG's collection. The fern collection has evolved from taxonomic placement of ferns to aesthetic placement to fall more in line with the current plantings and philosophies at the RSBG. This list covers the ferns located in approximately half of the garden, in covering the upper woodland garden which was the original location of the *Dryopteris* collection when the ferns were arranged taxonomically and the southern half of the RSBG, excluding the stumpery. These areas inventoried approximately 247 ferns of 60 taxa representing by 80 different accessions Also included in this report are collection plants located in the HFF growing hoop located in the RSBG nursery area. The plants in the hoop have not been accessed for garden performance. 🌿



BLECHNUM SPICANT 'RICKARD'S SERRATE'

# Fern Inventory Part 1

GENUS	SPECIES	SSP/VAR or CULTIVAR	Notes	Rating
Adiantum	x tracyi		Hoophouse. One of our favorite maidenhair ferns! Not out in garden yet.	5
Adiantum	aleuticum	'Imbricatum'	Hoophouse. not yet rated	
Adiantum	aleuticum	'Subpumilum'	Choice maidenhair, does very well for us. Excellent for alpine gardens, pots or the woodland garden.	5
Adiantum	aleuticum		Native, much better grower than A. pedatum.	5
Adiantum	shastense		Hoophouse. New species, not yet out in the garden.	
Adiantum	venustum		Very cold hardy, excellent groundcover, lawn replacement, mixed pots. Does well all over the garden.	5
Arachniodes	davalliaeformis		Hoophouse. These tend to struggle for us in the hoop, slow.	
Arachniodes	miqueliana		Hoophouse. Susceptible to slugs and slow, not yet rated.	
Asplenium	scolopendrium	'Peraferens'	Hoophouse. Donated by member, propagating.	
Asplenium	scolopendrium	'Ramo-cristatum'	Hoophouse. Donated by member, propagating.	
Asplenium	scolopendrium	Sagittatum Group	Hoophouse. Donated by member, propagating.	
Asplenium	scolopendrium	Undulatum Group	Hoophouse. Superior form, not yet rated	
Asplenium	trichomanes		Does well for us in shaded spots in our woodland stumpery as well as in sunnier locations.	5
Athyrium	angustum	f. rubellum 'Lady in Red'	Small patch of this in an out of the way spot in the garden. Tough, comes up every year. Nice when sun shines though the red stems.	3
Azolla	filiculoides		Floating on top of pond, abundant and it never goes away.	
Blechnum	chilense		Excellent grower in shade or full sun (with adequate water). Fully evergreen. Amazing fern!	4
Blechnum	novae-zealandiae		Hoophouse. Very young plants, not yet rated.	
Blechnum	penna-marina	Chilean alpine form	Possibly crowded out. HS#111, collected in Chile.	5
Blechnum	penna-marina	Chilean tall form	Much taller than the species, 8-10", right now in a lot of shade, new growth green. HS#084, collected in Chile.	5
Blechnum	spicant	'Rickard's Ser-rate'	This fern totally rocks! Beautiful variation of our native fern, European in origin. Need regular watering.	5
Blechnum	spicant		Native fern that looks best in moist soil. Dimorphic upright fertile fronds, striking.	5

GENUS	SPECIES	SSP/VAR or CULTIVAR	Notes	Rating
Cheilanthes	lanosa		Hoophouse.	1
Coniogramme	emeiense	'Variegata'	Hoophouse. Susceptible to slugs and slow.	1
Coniogramme	japonica		Hoophouse. Susceptible to slugs and slow.	1
Cyrtomium	macrophyllum		Largest pinnaea of the Cyrtomiums, brightens up a shady spot with it's apple green fronds. Slow growing.	4
Doodia	media		This one has slowly been declining, is sited in a spot with too much shade. Needs a full sun location.	1
Dryopteris	affinis	'Revolvens'	Vigorous cultivar, in hoophouse. Susceptible to leaf hopper.	4
Dryopteris	affinis		Big, bold and beautiful! Only drawback... leafhopper in our area. Can spore around in moist areas.	4
Dryopteris	× australis		Hoophouse, not yet rated.	
Dryopteris	bissetiana		Very pretty, beaded look as the spore cases show through the frond. Very slow, only gets 12-18" tall.	3
Dryopteris	cashmiriana		Hard to find, decent long -lived plant.	3
Dryopteris	celsa		This one doesn't do very well for us, in a spot where it needs to be moved.	2
Dryopteris	championii		Slow growing but very nice, stunning scales, needs a part shaded spot.	4
Dryopteris	clintoniana		Hoophouse, not yet rated.	
Dryopteris	complexa	'Stableri Crisped'	Excellent fern, only drawback suseptible to leaf hopper.	4
Dryopteris	complexa		Nice, HUGE fern, robust, beautiful, only drawback suseptible to leaf hopper.	4
Dryopteris	crassirhizoma		Vase shaped, symetrical, nice scales, does well for us.	5
Dryopteris	cycadina		Black scales, vigorous grower, spectacular new growth.	5
Dryopteris	decipiens		One of our favorite Dryopteris! Shiny, hot pink new growth that fades to green, mid sized.	5
Dryopteris	dickinsii		Not verified	
Dryopteris	dilatata	'Crispa White-side'	Hoophouse, not yet rated.	
Dryopteris	dilatata	'Lepidota Cris-tata'	Hoophouse, not yet rated.	
Dryopteris	dilatata	'Recurved Form' ('Recurvata')	Not verified	
Dryopteris	× dycei		Best new fern to come along in awhile! Large, evergreen, robust, deep green, bulbils on the tips.	5

GENUS	SPECIES	SSP/VAR or CULTIVAR	Notes	Rating
Dryopteris	erythrosora	'Brilliance'	Easy to grow, does well for us in a very shaded spot, could use more sun. This cultivar has much redder new growth.	5
Dryopteris	erythrosora	'Prolifica'	Only one small plant left of this erythrosora cultivar. Very narrow pinnules. Hard to find.	3
Dryopteris	erythrosora		Bread and butter of the fern world. Will take some afternoon sun.	5
Dryopteris	expansa		Lovely, lacey native. We don't have much of this in the garden, need more!	5
Dryopteris	filix-mas	'Barnesii'	Hoophouse, not yet rated.	
Dryopteris	filix-mas	'Linearis Poly-dactyla'	Hoophouse, not yet rated.	
Dryopteris	filix-mas	'Parsley'	Super cute and curly small to mid-sized fern.	4
Dryopteris	filix-mas	Cristata Group	Hoophouse, not yet rated.	
Dryopteris	filix-mas		Tons of these in the garden, robust, fine fern.	4
Dryopteris	formosana		Pretty but slow.	3
Dryopteris	lepidopoda		Vibrant new growth, mid sized, doesn't like afternoon sun.	5
Dryopteris	ludoviciana		Very small patch that has diminished over time. Performs poorly in our cool climate.	1
Dryopteris	namegatae		This has been a great fern for us and has gotten quite large. Needs shades, no direct sun.	5
Dryopteris	nipponicum		Not verified	
Dryopteris	pacifica		Very ordinary, hard to find.	3
Dryopteris	polylepis		Hard to find, very striking fern, it often has tips that seem stunted?	2
Dryopteris	pseudo filix-mas		Large fern, a bit non descript but very ferny, also susceptible to leaf hopper.	3
Dryopteris	pulcherrima		Hoophouse, not yet rated, very promising.	
Dryopteris	pycnopteroides		Large, have been in the garden for many years, very hard to find.	4
Dryopteris	remota		Nice in mass, very vase shaped, small trunk as it ages.	4
Dryopteris	sacrosancta		Hard to find, collector fern.	4
Dryopteris	scottii		Huge, bold pinnules. Very unique, slow grower.	3
Dryopteris	sieboldii		Very slow for us here, climate too cool.	
Dryopteris	stewartii		Hard to find.	3
Dryopteris	sublacera		Rare fern, planted many years ago, need to get back on the market.	4

GENUS	SPECIES	SSP/VAR or CULTIVAR	Notes	Rating
Dryopteris	tokyoensis		Hoophouse. This has been in the garden in the past, like a lot more than we first realized. Very upright habit and distinct pinnule pattern.	5
Dryopteris	uniformis		Not verified	
Dryopteris	wallichiana	ssp. pachyphylla	Hoophouse, not yet rated.	
Dryopteris	wallichiana	ssp. wallichiana	Stunning plant, robust, huge...loves deep shade and moist, rich soils. Spore collected by SEH, China trip	5
Dryopteris	wallichiana	ssp. wallichiana	Stunning plant, robust, huge...loves deep shade and moist, rich soils.	5
Gymnocarpium	disjunctum		Vigourous native groundcover, light and airy feel.	5
Lepisorus	bicolor		Hoophouse, not yet rated.	
Onoclea	sensibilis		Hoophouse, lost our patch in the garden, too much shade. Never invasive for us, too shaded and dry.	3
Osmunda	regalis		Loves full sun and moist soil, giant fern in various parts of the garden.	5
Osmunda	regalis	var. brasiliensis	Not verified	
Osmunda	spectabilis		Hoophouse, not yet rated.	
Osmundastrum	cinnamomeum		Large patch in full sun on edge of pond, needs moisture, does very well for us.	5
Pleopeltis	lepidopteris	'Morro dos Conventos'	Hoophouse, not yet rated.	
Polypodium	vulgare	Ramosum Group	Hoophouse, not yet rated.	
Polystichum	aculeatum	'Cristatum'	Hoophouse, not yet rated.	
Polystichum	aculeatum		Hoophouse, not yet rated.	
Polystichum	luctuosum		Not verified	
Polystichum	makinoi		Nice mid sized evergreen.	5
Polystichum	neolobatum	dark green form	Extraordinary foliage, dark forest green, excellent presence all year long in the garden.	5
Polystichum	polyblepharum		These do well for us anywhere in the garden that has a good amount of shade and not too dry.	5
Polystichum	retrosopaleaceum		Early up in the spring, interesting unfurling croisers, soft fronds uncharacteristic to the genus.	
Polystichum	setiferum	(Bevis Group) 'Bevis'	Exceptional in form, foliage and habit! Elegant!	6
Polystichum	setiferum	Divisilobum Group	Graceful and delicate yet reliable and tough.	5
Polystichum	setiferum	Plumosomulti-lobum Group	Choice, evegreen, fluffy, feathery fronds yet resilient in the garden.	5

GENUS	SPECIES	SSP/VAR or CULTIVAR	Notes	Rating
Polystichum	xiphophyllum		Very underused, exceptionally nice Polystichum. Our is currently in a little too much shade. Finding that these do better with more sun than expected.	5
Pyrosia	lingua	'Corymbifera'	Hoophouse, not yet rated.	
Pyrosia	lingua	'Ogon nishiki'	Hoophouse, not yet rated.	
Thelypteris	decursive-pinnata		Hoophouse. Lost our patch out in the garden due to drought. Very cheerful bright apple green fronds., spreads but not super aggressive.	4
Woodwardia	areolata		These have been growing near our pond for many years, takes the full sun in the early spring and then covered up by larger Rodgersia's later in the season.	4

## The Fern Stumpery at the Rhododendron Species Botanical Garden Revisited.

John van den Meerendonk  
Bainbridge Island, WA

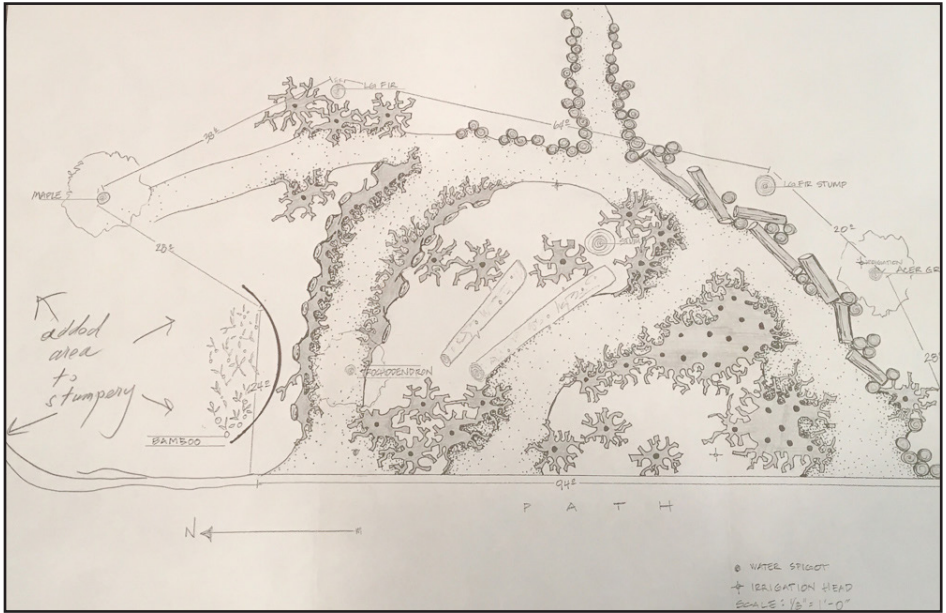
### Introduction

Articles in this Quarterly relate to the long and supportive relationship that the Hardy Fern Foundation (HFF) has enjoyed with the Rhododendron Species Botanical Garden (RSBG). A symbol of this relationship is culminated in the Fern Stumpery that exists today. The Fern Stumpery was built in the winter and spring of 2009. Now, twelve years later, a myriad of mature ferns thickly carpet the entire space beneath tall Douglas Fir and a trove of large leafed rhododendrons, scheffleras, magnolias and numerous new introductions that has now turned it into a botanical wonderland. A Thank You to Jo Laskowski (Curator Emeritus) for looking for and sending me HFF's file on the project. It contained dates, names, work log, invoices and notes. This information on what occurred has jarred my foggy memory.

### Early Planning

First mention of the creation of a stumpery comes from the President's Message in the Fall of 2005 Quarterly. It pertains to the September HFF board meeting held at the Washington Park Arboretum in Seattle, WA. I quote, "Another item of interest brought up at this meeting was the proposal by President Elect, Richie Steffen, to create a fern stumpery at the main HFF study garden at the RSBG in Federal Way, WA. A stumpery would draw added interest, beauty and structure to the fern garden as a whole. Plans are being made to make the addition to the study garden." The next mention of the Fern Stumpery proposal is in the President's Message in the Spring of 2006 Quarterly. "Plans will soon be made for the installation of the fern stumpery at the RSBG that houses the HFF main study garden and the growing facilities. In Federal Way, WA. We

hope we can do the project this summer. The staff of the RSBG has already cleared a wonderful large site for the installation.” This last sentence indicates that by this time, RSBG had given their approval and had selected the site for this addition to the Botanical Garden.



### Acquiring Stumps, Delays

Little did we know how long it would take and how difficult and frustrating it would be to accumulate enough stumps and logs for a half-acre stumpery. One note from our then Curator, Michelle Bundy, shows a scheduled delivery in October of 2007 that never occurred. Orders were cancelled or there weren't enough from one site to do the job on this scale, and we were always low priority for we were willing to pay for the trucking but expected the stumps to be free. Finally, after much effort, Michelle was able to locate a source for an adequate number of beautiful stumps, logs and log ends. They were delivered on January sixth, seventh and ninth in 2009, in a holding area just outside the gate toward the Bonsai Greenhouse, and were met by an excavator to receive and stockpile them into a large hill because of the limited space.

### Design, Education

Before the project began, I recall walks, after HFF board meetings, with fellow board members evaluating the site, and envisioning pathways through the space. With my experience in landscaping through my design and installation company, Botanica, Inc., I was asked by the HFF board to lead the installation of the project. I read all I could find on stumperies from the "Victorian Fern Craze" to "Biddulph's Grange" to "Prince Charles's Stumpery". I was also fortunate that fellow HFF board member Pat Riehl and her husband Walt, had a fern stumpery built on their Vashon Island property in early 2008 under the auspices of fern specialist extraordinaire, Martin

Rickard. Martin was an advisor to Prince Charles for his stumpery done in 1980. In the summer of 2008 Pat and Martin along with HFF put on a wonderful workshop on the creation of fern stumperies with Pat and Walt's Fern Stumpery as the highlight. Not long before the project was to begin, I spent a good part of a day with Pat at her stumpery to totally immerse myself in it. I loved the way the stumps flanked the sloping gully with ferns arising on each side, enveloping you. The stumpery gate at the bottom is a fitting climax to a special place with a special dramatic feeling. The site at the RSBG covers approximately twenty thousand square feet, is roughly rectangular in shape with the long axis north to south. A main service road borders the west and north sides. The landscape is sloped from a high point in the southeast corner sloping gradually to the northwest. You can see across the fern stumpery from this high point. A tall and spread out canopy of Douglas Fir provides partial shade through most of the site. At first, I wasn't too excited by the site, thinking protected gully from this more open sloping woodland. But this site provided diversity, from an upland woodland to the lower and moister area in the north side of the site. My preliminary landscape sketch on large paper laid out the pathways and features and so approximates the stumps placement. In this free form landscape little else on paper was needed. The stump's and log's characteristics would dictate their placement and shape the garden. Stumps and logs were on hand and equipment and materials lined up. We were excited to begin.



PATRICK FANNING PLACING STUMPS

### **Stumpery Construction**

We had a good system. We had one excavator and a large dump truck at the stump holding area. The truck would be loaded with stumps and then transported to the site, dumping them on the west service road. Between the loads of stumps transported, the truck would go and pick up fifteen yard loads of organic garden mix



**PATRICK FANNING AND JOHN VAN DEN MEERENDONK**

topsoil which was used to backfill the stumps and logs and to shape the landscape. We started in the high southeast corner along the upper trail. Patrick Fanning was the



**JOHN VAN DEN MEERENDONK - CUTTING THE EDUCATIONAL BENCH**

owner of the landscape excavation company we employed and was the operator of the large excavator used in the installation. Patrick was excellent in the operation of

his machine, placing and knitting the stumps and logs together and making the trails. His ability to use the excavator to move one-hundred and sixty yards of topsoil, used to fill around and within stumps and logs was invaluable and time saving. As the job was to begin, Steve Hootman, Executive Director of the RSBG, donated some logs that were recently taken down in the Garden. One was a beautiful piece of Western Red Cedar, thirty inches or so in diameter and thirty feet long. The log was placed towards the beginning of the project in the high southeast corner, set to overlook the entire Fern Stumpery. The log was sawn into a flat-topped bench, long enough to accommodate a dozen individuals. I call this log the "Teaching Bench". A number of years later I taught a fern class at RSBG for NHS and it was my personal pleasure to experience the bench used as to its given name. Most of the stumps and logs were placed alongside pathways and placed in a fashion to showcase and accentuate their forms and knitted together into a harmonious whole. Michelle also directed placement of stumps along the upper trail. We moved across the site setting stumps and logs, then spreading topsoil to backfill them while still in reach of the excavator. And so we moved through the landscape. In the lower stumpery area, a circular bed surrounded by a path contains three very large Bigleaf Maple trunks that arise some ten feet into the air. On the outer west side of the circular path, a sitting log now draped with the Himalayan Maidenhair Fern (*Adiantum venustum*) looks at the tall maple stumps and bed. A woven mass of stumpery roots form the background of the sitting log. In four days, one hundred thirty stumps, twenty logs and log ends and one-hundred and sixty yards of topsoil were placed and set with graded walkways through the space. On March 6<sup>th</sup>, 2009, thirty six yards of mulch were spread on the landscape and twelve yards of cedar chips were uniformly spread on all the pathways.

### **Stumpery Planting**

Planting of the stumpery was primarily done by Curator Michelle Bundy and Assistant Curator Jo Laskowski and RSBG Executive Director, Steve Hootman. Work and planting parties were organized. Board members volunteered their time prepping and planting the stumpery often after a monthly Saturday morning board meeting. Most of the ferns planted are ferns that were grown by HFF. Others from nurseries and some from donations were added to increase the diversity. The Fern Stumpery is more than ferns and Steve Hootman has added numerous selections of big leafed rhododendron, magnolias and scheffleras and numerous plant introductions, many collected by Steve himself. The ferns, blanketing the stumpery knit the whole together.

### **Fern Stumpery Today**

Stumperies are no longer unknown garden features. Numerous Fern Stumperies are being created. We do know that the Fern Stumpery at RSBG is one of the largest fern stumperies to exist. We know that this Fern Stumpery is one of the most botanically diverse stumperies ever created. The Fern Stumpery at the RSBG has been an inspiration and model in promoting and rekindling this unique garden approach. Stumperies provide diverse plant habitats that accommodate a wide selection of ferns and other plants. They can be done on a small or large scale. Even a single decomposing stump displays a unique and diverse community of plants from lichens

and liverworts to mosses, ferns and shrubs like the Red Huckleberry (*Vaccinium parviflora*) and even trees such as our state tree the Western Hemlock (*Tsuga heterophylla*) often found growing on decomposing stumps and logs and usually accompanied by an array of Bryophytes. 🌿



BEFORE PHOTO OF STUMPERY SITE



AFTER PHOTO OF STUMPERY SITE

# Strolling from the Stumpery

Sue Olsen  
Bellevue, WA



Across the main trail from the stumpery is a lovely pond alive with frog, salamander and friend's activities and peaceful with plant beauty. A pleasant path circles the area and here you'll find the ferns that enjoy a moist

WOODWARDIA AREOLATA - PHOTO BY SUE OLSEN



ADIANTUM ALEUTICUM 'SUBPUMILUM' - PHOTO BY SUE OLSEN

to wet habitat especially osmundas and equisetums (yes unfortunately the latter are now considered ferns!) and some special treats such as *Woodwardia areolata*, (see photo) the netted chain fern. The pond also supports the water fern or mosquito fern, *Azolla* that coats the surface (competing with duckweed). This is the world's smallest fern and yet one of the most economically valued as it can be used to fix nitrogen in Asian rice paddies. (And also has been credited with cooling down the earth millions of years ago!)

Heading back across the trail towards the main entry there's another wandering path that heads slightly uphill and into the alpine area. The rhodies here are primarily dense and attractive dwarfs that are accustomed to life at high altitudes. Here too is an outstanding planting of one of the world's most attractive dwarf ferns, *Adiantum aleuticum* 'Subpumilum'.

This little beauty was discovered in the 1960's by Seattle's accomplished horticulturist-botanist Carl English director of the then named Ballard Locks Botanical Garden, now the Carl S. English Jr. Botanical Garden. He found a small colony of it on the west coast of Vancouver Island, Canada and protected its habitat by not disclosing the location (resulting in eager collectors unsuccessfully searching likely areas in the state of Washington.) He did however bring back spores which he generously shared with growers so that in time the fern became available while the home site rested in peace. As I said it is a dwarf and while its appearance did not change its name was published and altered again and again starting with "dwarf maidenhair", and *Adiantum pedatum* var. *aleuticum* and after going through approximately eight corrections is now named as above. By whatever name it is a choice deciduous 4-6" jewel for the garden's foreground but can be slow and somewhat difficult to establish. Give it well drained but moist soil with partial shade and for best results let it rest among and between rocks. (See photo)

Moving on there's a newly renovated gazebo that invites relaxation while enjoying a garden view.

And then towards the entrance the garden's very attractive conservatory awaits. (See photo) To describe it I'll quote the RSBG web site: "Opened in September 2010, the 5,000 square foot Rutherford Conservatory was named in honor of the late Francis C. Rutherford, a long-time RSBG member and vireya enthusiast. The development and construction of the Rutherford Conservatory has been one of the single greatest accomplishments in the history of the Rhododendron Species Foundation, enabling the Rhododendron Species Foundation to better fulfill its mission of conservation, research, cultivation, and public display of *Rhododendron* species.



Entering the Rutherford Conservatory is like stepping into a living museum for tropical *Rhododendron* species. From such far-flung places as China, Borneo, Vietnam, New Guinea and other regions of southeastern Asia, the Conservatory features an exquisite collection of the tropical species of rhododendrons called



PYRROSIA LINEARIFOLIA - PHOTO BY SUE OLSEN



ADIANTUM HISPIDULUM - PHOTO BY SUE OLSEN

vireyas, as well as many companion plants like orchids and ferns. (See photos).

Several species in the collection may no longer exist in their native habitat, largely due to deforestation and habitat destruction. In an effort to study and protect these rare species, the RSBG's Executive Director and Curator, Steve Hootman, travels to remote locations around the world to locate and document these rapidly disappearing plant populations. These expeditions have discovered species new to science and have provided researchers with genetic material for scientific study.

Visitors are invited to enjoy hundreds of unique species that are planted to replicate the natural plant communities in their native habitat, all displayed alongside waterfalls, a splashing stream, and towering boulders. There are colorful, often fragrant flowers on display every day of the year in the Conservatory, making it an exciting destination all year long." 🌿

Enjoy your visit.

### Conservatory Ferns

*Adiantum hispidulum*

*Adiantum capillus-veneris*

*Blechnum penna-marina*

*Cibotium* sp. (wc Hawaii)

*Cyrtomium* spp.

*Dryopteris sieboldii*

Unknown deciduous epiphytic fern wc Nagaland (SEH#)

Unknown deciduous running fern (SEH#-China)

*Onychium japonicum* 'Sichuan Lace'

*Osmunda* (syn. *Plenasium*) *banksiifolia*

*Pyrrosia* sp. (*lingua* aff.) SEH#12547

*Pyrrosia* sp. SEH#27040 Vietnam

*Pyrrosia sheareri* SEH#15548 wc China

*Pyrrosia linearifolia*

*Woodwardia orientalis* var *formosana*

*Dictyocline sagittifolia* SEH# wc Guangxi

Fern sp. SEH#15123 on pole (linear one)

*Pyrrosia* sp. on pole (triangular one) SEH#

Mystery fern (maybe some blechnum)

# Hardy Fern Foundation 2021 Spore List - Updated 3/14/21

Quantity Requested	Botanical Name	2017 Spore	2018 Spore	2019 Spore	2020 Spore	2021 Spore
	<i>Adiantum aleuticum</i>	DOH		DOH		
	<i>Adiantum aleuticum</i> 'Imbricatum'			RSBG		
	<i>Adiantum aleuticum</i> 'Subpumilum'	DOH		RSBG		
	<i>Adiantum raddianum</i> 'Crested Majus'	FZ				
	<i>Adiantum tenerum</i> 'Scutum Roseum'		FZ			
	<i>Adiantum thalictroides</i>		SO			
	<i>Adiantum tricholepis</i>			ST		
	<i>Arachniodes miqueliana</i>			RSBG		
	<i>Asplenium scolopendrium</i>			DOH		
	<i>Asplenium scolopendrium</i> (Cristata Group)				SH	
	<i>Asplenium scolopendrium</i> (Fimbriatum Group)		RSBG		EMBG	
	<i>Asplenium scolopendrium</i> (Fimbriatum-ramosum Group)				HFF	
	<i>Asplenium scolopendrium</i> (Peraferans Group)		RSBG		EMBG	
	<i>Asplenium scolopendrium</i> (Ramo-cristatum Group)		RSBG	RSBG		
	<i>Asplenium scolopendrium</i> (Sagittatum Group)			HFF	HFF	
	<i>Asplenium scolopendrium</i> (Sagittatum-cristatum Group)			RSBG	EMBG	
	<i>Asplenium scolopendrium</i> ex Hokkaido, Japan				EMBG	
	<i>Asplenium scolopendrium</i> best form (Sagittatum-cristatum Group)				EMBG	
	<i>Asplenium trichomanes</i>			RSBG		
	<i>Athyrium filix-femina</i> 'Corymbiferum'		JKL			
	<i>Athyrium filix-femina</i> 'Minutissimum'		NS			
	<i>Athyrium filix-femina</i> (Cristatum Group)					
	<i>Athyrium filix-femina</i> (Cruciatum-cristatum Group)				RAS	
	<i>Athyrium filix-femina</i> var. <i>angustum</i> f. <i>rubellum</i> 'Lady in Red'		NS			
	<i>Athyrium otophorum</i>	DOH	NS	DOH		
	<i>Athyrium vidalii</i>			RSBG	RAS	
	<i>Blechnum chilense</i>					EMBG
	<i>Blechnum discolor</i>	EMBG			EMBG	
	<i>Blechnum hastatum</i>		NS	NS	HFF	
	<i>Blechnum novae-zelandiae</i>		RSBG		HFF	EMBG

Quantity Requested	Botanical Name	2017 Spore	2018 Spore	2019 Spore	2020 Spore	2021 Spore
	<i>Blechnum nudum</i>					EMBG
	<i>Blechnum penna-marina</i>		JKL			
	<i>Blechnum penna-marina</i> Chilean alpine form				RAS - ex Chile	
	<i>Blechnum penna-marina</i> ssp. <i>penna-marina</i>		RSBG			
	<i>Blechnum spicant</i>		RSBG	DOH	RSBG	
	<i>Blechnum spicant</i> 'Rickard's Serrate'				RAS, EMBG	
	<i>Blechnum spicant</i> 'Crispum'				JK	
	<i>Blechnum tabulare</i>		RSBG			
	<i>Blechnum watsii</i>					EMBG
	<i>Cheilanthes candida</i> var. <i>copelandii</i>			ST		
	<i>Cheilanthes leucopoda</i>			ST		
	<i>Cyrtomium caryotideum</i>		RSBG			
	<i>Cyrtomium fortunei</i>		RSBG	KY		
	<i>Cyrtomium lonchitoides</i>		NS			
	<i>Cyrtomium macrophyllum</i>		RSBG			
	<i>Cystopteris bulbifera</i>			JC		
	<i>Deparia hachijoense</i>	BH				
	<i>Dicksonia antarctica</i>				JK	
	<i>Drynaria delavayi</i>		SHE	RSBG	SEH ex. Hubei	
	<i>Dryopteris affinis</i> 'Cristata the King'			JKL,KD		
	<i>Dryopteris affinis</i> 'Polydactyla Dadds' (Polydactyla Group)			RSBG		
	<i>Dryopteris affinis</i> 'Revolvans'			RSBG		
	<i>Dryopteris arguta</i>		SO			
	<i>Dryopteris clintoniana</i>			RSBG		
	<i>Dryopteris crassirhizoma</i>		RSBG	RSBG		
	<i>Dryopteris crispifolia</i>	RSBG				
	<i>Dryopteris cristata</i> 'Windy Acres' - possibly a hybrid				SO Iron River, MI	
	<i>Dryopteris cycadina</i>		RSBG			
	<i>Dryopteris decipiens</i>		NS		RSBG	
	<i>Dryopteris dracomontana</i>				EMBG	

Quantity Requested	Botanical Name	2017 Spore	2018 Spore	2019 Spore	2020 Spore	2021 Spore
	<i>Dryopteris erythrosora</i>	JKL		RSBG		
	<i>Dryopteris erythrosora</i> 'Prolifica'		NS			
	<i>Dryopteris erythrosora</i> ex DJHH 14224				RAS	
	<i>Dryopteris erythrosora</i> var. <i>prolifca</i> (true type)				RAS	
	<i>Dryopteris filix-mas</i> 'Barnesii'		RSBG			
	<i>Dryopteris filix-mas</i> 'Fluctuosa Cristata'			DOH		
	<i>Dryopteris filix-mas</i> 'Linearis Polydactyla'			RSBG		
	<i>Dryopteris filix-mas</i> (Grandiceps Group)		RSBG			
	<i>Dryopteris lepidopoda</i>	RSBG,JKL				
	<i>Dryopteris namegatae</i>		NS	NS		
	<i>Dryopteris polylepis</i>	NS		RSBG , NS		
	<i>Dryopteris pulcherrima</i>			RSBG		
	<i>Dryopteris remota</i>	RSBG				
	<i>Dryopteris sieboldii</i>		RSBG , NS			
	<i>Dryopteris sublacera</i>		RSBG			
	<i>Dryopteris tokyoensis</i>		RSBG	RSBG		
	<i>Dryopteris wallichiana</i>			RSBG	RSBG - Wild Collected Fern	
	<i>Dryopteris wallichiana</i> ssp. <i>coriacea</i>			EMBG	EMBG	
	<i>Dryopteris wallichiana</i> ssp. <i>pachyphylla</i>				RSBG, DM, TB	
	<i>Dryopteris</i> × <i>complexa</i> 'Stableri Crisped'		RSBG	RSBG		
	<i>Dryopteris</i> × <i>complexa</i> 'Stableri'				EMBG	
	<i>Gymnocarpium dryopteris</i>			RSBG		
	<i>Histiopteris incisa</i>	BH				
	<i>Lygodium japonicum</i>					DOH
	<i>Matteuccia struthiopteris</i>			BT		
	<i>Microlepia strigosa</i>		FZ			
	<i>Microsorium diversifolium</i>		RSBG			
	<i>Nephrolepis biserata</i> 'Macho'		FZ			
	<i>Nephrolepis falcata</i> 'Furcans'	FZ				

Quantity Requested	Botanical Name	2017 Spore	2018 Spore	2019 Spore	2020 Spore	2021 Spore
	<i>Notholaena candida</i> var. <i>copelandii</i>		ST	ST		
	<i>Onychium japonicum</i>		RSBG		EMBG	
	<i>Osmunda claytoniana</i>		NS		SO Ottawa Lake, MI	
	<i>Osmunda japonica</i>				EMBG	
	<i>Osmunda lancea</i>			EMBG	EMBG	
	<i>Osmunda regalis</i>	DOH	RSBG		DOH	
	<i>Osmunda regalis</i> 'Decomposita'	RAS			RAS	
	<i>Osmunda regalis</i> 'Purpurascens'	RSBG		RSBG		
	<i>Osmunda regalis</i> 'Laurin'				???	
	<i>Osmunda regalis</i> var. <i>brasiliensis</i>				RAS	
	<i>Osmundastrum cinnamomeum</i>		NS			
	<i>Pellaea atropurpurea</i>		RSBG			
	<i>Pellaea rotundifolia</i>		NS			
	<i>Pellaea</i> 'Silver Moon'	FZ				
	<i>Pellaea viridis</i>		NS			
	<i>Pentagramma triangularis</i>	DP				
	<i>Phlebodium aureum</i> 'Blue Star'		FZ			
	<i>Polypodium scolieri</i>		NS	NS, JKL		
	<i>Polypodium vulgare</i>		RSBG			
	<i>Polypodium vulgare</i> 'Ramosum'		RSBG			
	<i>Polystichum aculeatum</i>			RSBG		
	<i>Polystichum californicum</i>	RSBG				
	<i>Polystichum lemmonii</i>				DM, Beverly Creek, Teianaway	
	<i>Polystichum luctuosum</i>		NS	NS		
	<i>Polystichum munitum</i>		RSBG	BT		
	<i>Polystichum munitum</i> 'Crisped'				BBG	
	<i>Polystichum neolobatum</i>	RSBG	RSBG		RSBG	
	<i>Polystichum neolobatum</i> alpine form				RSBG, SUN	
	<i>Polystichum proliferum</i>	RSBG				
	<i>Polystichum rigens</i>		RSBG			

Quantity Requested	Botanical Name	2017 Spore	2018 Spore	2019 Spore	2020 Spore	2021 Spore
	<i>Polystichum scopulinum</i>				DM, Beverly Creek, Teanaway	
	<i>Polystichum tsus-simense</i>		RSBG			
	<i>Polystichum wilsonii</i>	SO	SO		RAS	
	<i>Pteris cretica</i> 'Albo-lineata'	FZ				
	<i>Pteris cretica</i> 'Mayii'	FZ				
	<i>Pteris ensiformis</i> 'Evergemiensis'		FZ			
	<i>Pyrrosia lingua</i> 'Cuspidata'			NS		
	<i>Pyrrosia lingua</i> 'Tachiba Koryu'			NS		
	<i>Pyrrosia shearerii</i>			RSBG, NS,SO		
	<i>Woodsia polystichoides</i>				EMBG	
	<i>Woodsia polystichoides</i> Kamtschatka form				EMBG	
	<i>Woodsia polystichoides</i> large form				JK	
	<i>Woodsia subcordata</i>				EMBG	
	<i>Woodwardia unigemmata</i>					EMBG

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Email address: \_\_\_\_\_

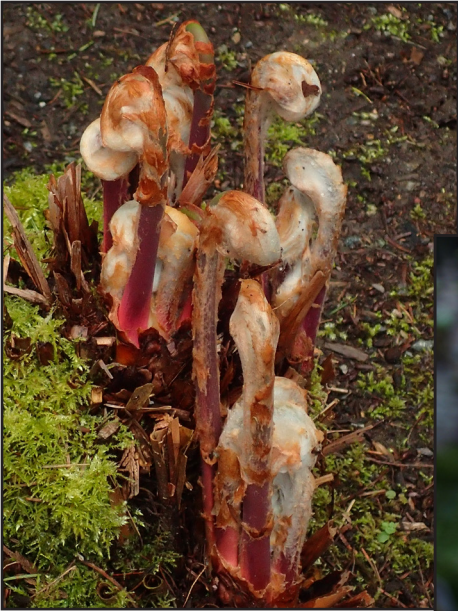
Phone number: \_\_\_\_\_

Spore costs .75 per packet. You will be contacted with the total amount of your order, once it has been taken to the Post Office and calculated. Your order total will be emailed to you, unless you specify we send it by mail. Once you have received that information, you will be able to pay through our website using PayPal, or by check in USD payable to the **Hardy Fern Foundation/PO Box 3797, Federal Way, WA 98063-3797.**

### Spore Donor Key

BBG	Bellevue Botanical Garden	Bellevue, WA	JKL	Jo Laskowski	WA
BH	Bart Hendrixx	Netherlands	KD	Kay Dye	IL
BT	Brenda Townes	Kentucky	NS	Nancy Strahle	WA
DOH	Carolyn Doherty	WA	RAS	Richie Steffen	WA
DM	Daniel Mount	WA	RSBG	Rhododendron Species Botanical Garden	WA
DP	David Persarro	WA	SEH	Steve Hootman	WA
EMBG	Elisabeth C. Miller Botanical Garden	WA	SH	George Soule & Maurice Horn	OR
FZ	Lindee Fitzpatrick	Australia	SO	Sue Olsen	WA
HFF	Hardy Fern Foundation	WA	ST	Susan Tracy	TX
JC	James Cheshire	OH	SUN	Sundquist Nursery	WA
JK	Jeanette Kunnen	WA	WG	Wolfram Gassner	Germany

# Ferns in Spring Time



OSMUNDA REGALIS 'PURPURASCENS' -  
PHOTO BY SUE OLSEN



POLYSTICHUM NEOLOBARUM -  
PHOTO BY SUE OLSEN



NEW GROWTH - PHOTO BY SUE OLSEN

# We Wish to Thank Our Donors for Their Generous Support

March 2020 through February 2021

Brian Aikins	Giovanni Fazi	Sue Olsen
Elisabeth Allison	Dave & Lori Gibson	Leslie Pancratz & Michael Hayman
Amazon.com, Inc.	Greg Graves	Camille Paulsen
Suzanne & Marvin Anderson	Patrick Green	Sashi Raghupathy
Mary Ellen Asmundson	Catharine W. Guiles	J. Rosemary Read
Christine Baer	Sue Haffner	Virginia Reynolds
Louise Billings	William C. Hibler	Daniel R. Rice
Chris Boles	Tom Hobson	Pat Riehl
Willanna Bradner	Laura Hudson	Lars Rosengreen
Dr. Joseph Bryan	Sarah Johnston	Lynn Sires
Michelle Bundy	Frankye Jones	Helen Langer Smith
Naud Burnett II	Karin Kravitz	Larry Snyder
Forrest & Rene Campbell	Kroger Company	Magge Soderstrom
Nancy Campbell	Charles D. Lamade	Marie A. Spearman
Patricia Campbell	Edward & Donna Lambert	Richie Steffen & Rick Peterson
Brian Collins	Mark Lyke	Gary & Jean Steffen
Kathryn Crosby	Mary McCheyne	Randy & Janice Stone
Jerry & Carolyn Doherty	Amy McCune	Nancy Strahle
Sheila Donley	Susan McDonald	Nils Sundquist
Diana Dundore	Lynn McIntyre	Jeanie Taylor
Kay Dye	Marilyn Michalak	Diane Thompson
Susan Eggers	Lindsay Michimoto	John van den Meerendonk
Susan E. Eichhorn	Microsoft Corporation	Clydene Wenzel
Diane Elliott	Leslie Morris-Smith	Jane E Whiteley
Alison Evans	Chuck Ogburn	Roz Horder Williams
John Evans	Niko Okamoto	Willowmoor Foundation
Kenneth Everding	Charles Oliver	Patricia Tanttila & Dan Yansura
Sara Farinelli		

# Welcome New Members

Laura Cornett, Los Positas College

Page Englehart

Katrina Godshalk

Logan & Verna Hazen

Linda Kamm

Jon Kaplan

Janet McCammon

Natalie Mutz

Renee Paine

Kate Read

Pat Thompson, Secret Garden Growers

Kermit Williar



OSMUNDASTRUM CINNAMOMEUM - PHOTO BY SUE OLSEN