

American Rhododendron Society





American Rhododendron Society

A GUIDE TO THE SOCIETY

President: Don Smart
Past President: Ted Stecki
Eastern Vice President: Bruce Feller
Western Vice President: Robert MacIntyre
Treasurer: Bill Mangels
Secretary: Kath Collier

Executive Director: Laura Grant
Journal Editor: Glen Jamieson Ph.D.
Webmaster: Bob Weissman
Journal Technical Reviewers: Kenneth N. E. Cox, Harold E. Greer, Steve Hootman, Stephen Krebs Ph.D., G. David Lewis Ph.D., Erik T. Nilsen Ph.D., Registrar Michael Mills, Kathy Van Veen, Donald H. Voss, Mark Widrechner Ph.D.

ARS Districts & Chapters

District Director Terms

2013: Mary Parker, Shirley Rock, Marvin Fisher, John Brown
2014: Ann Whitney, Sally Perkins, Larry Coleman, Nicholas Yarmoshuk
2015: Tim Walsh, Steve Henning, Don Hyatt

Districts, District Directors, Chapter Chairpersons

DISTRICT 1

District Director: Mary Parker
Alternate: Kenneth Webb
COWICHAN VALLEY CHAPTER - Ian Efford
FRASER SOUTH CHAPTER - Brenda Macdonald
MT. ARROWSMITH CHAPTER - Tony Ansdell (interim)
NANAIMO CHAPTER - Art Lightburn
NORTH ISLAND CHAPTER - Paul Wurz
VANCOUVER CHAPTER - Tony Clayton
VICTORIA CHAPTER - Calvin Parsons

DISTRICT 2

District Director: Shirley Rock
Alternate: Carol Torset
CASCADE CHAPTER - Don Smart
KOMO KULSHAN CHAPTER - Lori Bayes
PILCHUCK CHAPTER - Barbara Blankenship
SEATTLE CHAPTER - Bill Heller
WHIDBEY ISLAND CHAPTER - Felicia Marshall

DISTRICT 3

District Director: Ann Whitney (interim)
Alternate: Clarice Clark (interim)
JUAN DE FUCA CHAPTER - Sonja Rotter
KITSAP CHAPTER - John Bullivant
LEWIS COUNTY CHAPTER - Joanne Campbell
OLYMPIA CHAPTER - Jack Horn
OLYMPIC PENINSULA CHAPTER - Jean Eichman
PENINSULA CHAPTER - Steve Johnson
SHELTON CHAPTER - Tom Noreen
TACOMA CHAPTER - Bill Hicks

DISTRICT 4

District Director: vacant
Alternate: Dave Collier
EUGENE CHAPTER - Ted Hewitt
PORTLAND CHAPTER - Mike Domaschofsky
SIUSLAW CHAPTER - Larry Jensen
SOUTHWESTERN OREGON CHAPTER - Ray Lee
TUALATIN VALLEY CHAPTER - Erlee Pennington
WILLAMETTE CHAPTER - Wallace Reed

DISTRICT 5

District Director: Tim Walsh
Alternate: Richard Jones
CALIFORNIA CHAPTER - Paul Anderson
DE ANZA CHAPTER - Nan Ray
EUREKA CHAPTER - Betty Bottemiller
HAWAII CHAPTER - Joyce M. Gay
MONTEREY BAY CHAPTER - Shirley Coleman
NOYO CHAPTER - Jim Celeri
SOUTHERN CALIFORNIA CHAPTER - John Morris

DISTRICT 6

District Director: Sally Perkins
Alternate: Barbara Gingras
CAPE COD CHAPTER - Wynn Palmisano
CONNECTICUT CHAPTER - Tom Flanigan
MAINE CHAPTER - Marilyn Brinnick
MASSACHUSETTS CHAPTER - Susan & Douglas Harding

DISTRICT 7

District Director: Marvin Fisher
Alternate: James Fry
NEW YORK CHAPTER - Marvin Fisher
PRINCETON CHAPTER - Mike O'Hara
TAPPAN ZEE CHAPTER - Arnold Card

DISTRICT 8

District Director: Steve Henning
Alternate: Michael Martin Mills
GREATER PHILADELPHIA CHAPTER - Linda Hartnett
LEHIGH VALLEY CHAPTER - Linda Young-Bandala
PINE BARRENS CHAPTER - Ted Stecki
SUSQUEHANNA VALLEY CHAPTER - Tom Schuetz
VALLEY FORGE CHAPTER - Steve Henning

DISTRICT 9

District Director: Don Hyatt
Alternate: Dave Banks
MASON DIXON CHAPTER - Mary Reiley
MIDDLE ATLANTIC CHAPTER - Lloyd Willis
POTOMAC VALLEY CHAPTER - Richard Mohr

DISTRICT 10

District Director: John Brown
Alternate: Hale Booth
AZALEA CHAPTER - Charles Andrews
PIEDMONT CHAPTER - Rick Ellis
SOUTHEASTERN CHAPTER - Jackson McCarter
TENNESSEE VALLEY CHAPTER - Jimmy Wooten
WILLIAM BARTRAM CHAPTER - Glenn O'Sheal

DISTRICT 11

District Director: Larry Coleman
Alternate: Marty Anderson
ANN ARBOR CHAPTER - Jan Grichor
GREAT LAKES CHAPTER - Charles Wagner
MIDWEST CHAPTER - Edwin Nyquist
OZARK CHAPTER - Gerald Klingaman

DISTRICT 12

THE RHODODENDRON SOCIETY OF CANADA
District Director: Nicholas Yarmoshuk
Alternate: Sondra Meis
RSC ATLANTIC REGION CHAPTER - Ruth Jackson
RSC NIAGARA REGION CHAPTER - Sondra Meis
RSC TORONTO REGION CHAPTER - Kristine Vikmanis

CHAPTERS AT LARGE

Director: Paul Anderson, M.D.
Alternate: Carl Adam Lehmann
DANISH CHAPTER - Ole Flindt
DUTCH CHAPTER - Wilbert Hetterscheid
FINNISH CHAPTER - Kristian Theqvist
J. D. HOOKER CHAPTER - Sri Keshab C. Pradhan
SCOTTISH CHAPTER - John Hammond
SWEDISH CHAPTER - Stefan Salomonson
NON CHAPTER MEMBERS - Contact Executive Director

ARS Committees and Chairpersons

Archives: Sandra McDonald, Ph.D.

Azalea: James Fry

Budget & Finance: Dave Collier

Bylaws & Policies: Fred Whitney

Digital Publications: Bob Weissman

Editorial: Sandra McDonald, Ph.D.

Electronic Media: Bob Weissman

Electronic Newsletter: Marty Anderson

Endowment: Bill Mangels & Jeff Cheyne

Fundraising: Bruce Palmer

Honors: Dee Daneri

Long-range Planning: Paul Anderson, M.D.

Membership: Shirley Rock

Nominations: Fred Whitney

Plant Awards: Ray Smith

Program Library: Linda & Marvin Fisher & Donald Hyatt

Public Education: Harold Greer

Publicity & Public Relations: vacant

Registrar of Plant Names: Michael Martin Mills

Research Committee: Harold Sweetman, Ph.D.

Research Foundation: Karel Bernady

Resource Development: vacant

Rhododendron Database: vacant

Seed Exchange: Norman Beaudry

Flower Show & Judging Advisory Resource: Bruce & Marianne Feller

Speakers Bureau: Bill Stipe

Test & Display Gardens: Nicholas Yarmoshuk

Society Contacts

ARS Home Page: <http://www.rhododendron.org>

ARS Office: <http://www.arsoffice.org>

ARS On-line Journals: <http://scholar.lib.vt.edu/ejournals/>

JARS/

ARS Archives: <http://www.lib.virginia.edu/small/>

Society's Purpose

To encourage interest in and to disseminate knowledge about rhododendrons and azaleas. To provide a medium through which all persons interested in rhododendrons and azaleas may communicate and cooperate with others through education, meetings, publications, scientific studies, research, conservation and other similar activities.

Membership Benefits

- Chapter affiliation with scheduled meetings
- Journal American Rhododendron Society* published quarterly
- Annual convention and regional conferences
- Seed exchange
- Listing of registration of names and descriptions of new rhododendron hybrids published in the *Journal*

To Join the Society

Membership categories:

(January 1 – December 31)

Student (include proof if over 18)	\$10.00
Regular	\$40.00
Commercial	\$90.00
Sustaining	\$75.00
Sponsoring	\$150.00
Life single	\$1,000.00
Life family	\$1,500.00

You can join the ARS through your local ARS chapter (check the website www.rhododendron.org for chapter contact info) or by sending a check or money order directly to the Executive Director of the American Rhododendron Society at the above address. Checks must be in US funds. Make checks payable to the "American Rhododendron Society." Membership includes one year (4 issues) of the *Journal American Rhododendron Society* and affiliation with the chapter of your choice. **To receive the winter issue of the Journal, renewals must be postmarked no later than Dec. 1.**

From the President

I know this will be old news by the time you read this, but I really want to let you folks in the Northeast know that the rest of us have been concerned about the effects of Sandy and the following nor'easter on all of you; not only your gardens but all of you personally. I have heard from some of you and about trees down and no power, but not about any injuries, so I hope most of you had no major loses.

Don Smart
Carnation,
Washington



I want to thank all of the folks in the Nanaimo Chapter and the other chapters on Vancouver Island for a wonderful Western Fall Regional Conference. The location was great and getting there, even though an adventure for some, really showed all of the beauty of the area. The gardens on the tours were wonderful even without rhododendrons in bloom. Thanks to all who participated in the planning and the conference's execution.

At the Board of Directors meeting we passed a budget for the next year with a small deficit. I want to thank all of the members and chapters who have sent in extra contributions to help put our budget back in balance. We are working on the budgeting process to both cut expenses and find new sources of income. We also put into effect our new Student Membership level. Why not give a student membership to young people in your family to get them interested in our favorite genus and get them on the road to enjoying the fellowship we all have at our chapter meetings and conferences?

The Board also approved the acceptance of, and I want to extend a hearty welcome to, our new Finnish Chapter. They are off to a great start with 23 members. Their president, Kristian Theqvist, will be one of the speakers at the next spring convention.

I would also like to encourage you to take a look at the new ARS on-line electronic Journal. There were instructions on accessing it on page 205 of the Fall Journal. There is also an ARS Blog (WeB Log) that has some great articles about "how-to" subjects, gardens and members. You can look at that at www.rhododendron.org/blog. It is really worth a read.

Looking towards spring, the folks in District 3 are working hard at finalizing the activities and speakers for next spring's ARS Convention on May 1-5, 2013. There will be some great tours and speakers, and I hope many of you will come and enjoy our wide variety of rhododendrons here in northwestern America. There will also be both a Western Regional the last weekend of September in Newport, Oregon, and an Eastern Regional the first weekend in October in Dartmouth, Nova Scotia.

Thanks to all of you who volunteer in your chapters, as directors and on ARS committees. It is all of you who make our Society what it is. Encourage each other and encourage new members to get involved, as it really can be fun!

WINTER 2013 VOLUME 67 NUMBER 1

Journal American Rhododendron Society (ISSN 0745-7839). Published quarterly (Jan. 15, April 15, July 15, Oct. 15) by the American Rhododendron Society, P.O. Box 525, Niagara Falls, NY 14304-0525 USA. Membership in the Society includes a subscription to the *Journal American Rhododendron Society*. Annual membership dues are \$40.00 per year. Copyright 2013 by the American Rhododendron Society. Permission to reprint any portion of this volume must be granted in writing by the Editor. The Society assumes no responsibility for its advertisers. International Standard Serial Number of Journal ARS 0745-7839. Periodicals postage paid at Niagara Falls, NY and at additional mailing offices. POSTMASTER: send address changes to the *Journal American Rhododendron Society*, P.O. Box 525, Niagara Falls, NY 14304-0525 USA.

From the Executive Director



Laura Grant
Toronto, Ontario
Canada

The inside story.

I would like to extend my warmest welcome to our newest chapter. The Finnish Chapter was officially recognized at our Board meeting in Nanaimo, BC, on September 21st, with Kristian Theqvist as its first president. I wish our Finnish members great success and look forward to meeting them in the future.

Congratulations to the Midwest Chapter for having the highest increase in membership over the past fiscal year.

Please visit our website www.arsoffice.org where you will find the Speaker Bureau database as well as the DVD Program Library. Both can help to enhance your monthly meetings with great speakers or interesting DVD programs.

I was recently asked to pass a change in address onto "our staff" for updating. Someone else asked me to get "the bookkeeper" to update their chapter's account. Such requests prompted me to give you this inside story on the Office of the ARS (OARS) and our staff.

Membership renewal information comes to our office, by fax, email and sometimes even regular mail. Many members renew directly through OARS and credit card processing is handled for new members directly through OARS. Most processing is done between first of September and the end of December but these activities continue at a busy pace throughout the year.

Daily, we assist new chapter Board members with their myriad of questions; answer phone calls and emails from the general public on every imaginable question regarding plants, their care and similar matters; fill requests for Journals, medals and brochures. Each quarter we send to our editor, Glen Jamieson, reports on new members, deceased members, chapter and personal donations, commercial members, medals awarded and changes in our District Directors and alternates, committees and chapter officers. We are also responsible for getting our electronic mailing list to our Journal publisher each quarter. Every month we send updates on membership rosters and financial reports for each ARS chapter to our webmaster, Bob Weissman, for posting on the OARS website. Your chapter's liability insurance is negotiated by our office each fall and is tied to the master policy of the Society.

An annual update of chapter treasurers is submitted to the Internal Revenue Service for proper recognition as non-profit organizations in the United States under the umbrella of the ARS. Likewise, a Statement of Ownership, Management and Circulation is submitted every fall to the US postal service. Corporate and State taxes are paid, as well as liability insurance premiums.

All the newsletters sent to our office are forwarded to Alderman Library, University of Virginia for archiving.

The medals to be awarded at our annual meetings must be procured, engraved and submitted for presentation.

In July we send 7,000 pieces of material to chapters, representing renewal information for the coming year. The end of August marks the end of our fiscal year and our books have to be up to date and ready for the annual review.

While our busy "staff" can find it very hectic at times, "we" keep a great sense of humor, focus and dedication to our mission of bringing fun to growing rhododendrons. "Our staff" is yours truly.

Table of Contents

Features

- 4 Maddenia Rhododendrons on the West Coast BY MIKE MCCULLOUGH
- 14 Variation in Flame Azalea (*Rhododendron calendulaceum*) Germination Behavior and Seed Morphology in Five North Carolina Populations BY ERIC J. LIMBIRD AND NATHAN C. PHILLIPS
- 23 *Rhododendron* 'Fastuosum Flore Pleno' BY DON WALLACE
- 24 ARS Eastern Regional Conference in Nova Scotia BY SHELIA STEVENSON
- 25 Groom Early for Bigger and Better Flower Trusses BY DENNIS MCKIVER
- 29 The Word: Dormant BY BRUCE PALMER
- 31 ARS Photo Contest Winners 2012
- 34 How Does Your Garden Grow? How Do Your Trusses Show? BY BRUCE FELLER
- 37 Advantages of Public Choice Voting BY BOB AND COLEEN GEORGE
- 38 The ARS Seed Exchange: Growing Rhododendrons from Seed BY NORMAN BEAUDRY
- 70 The Honey Trick: A Technique for Overcoming Reluctant Pollination in Rhododendrons BY BETTY ANN ADDISON
- 74 Rhododendron of the Year Awards, 2013 BY RAY SMITH
- 89 District 12, American Rhododendron Society BY NICHOLAS YARMOSHUK
- 94 Pruning BY DENNIS MCKIVER
- 97 First Image of a Rhododendron on a Legal-tender Coin BY GLEN JAMIESON

Society News

- | | |
|---|----------------------------|
| 28 Online Journal | 102 2013 ARS Photo Contest |
| 43 Awards: Garth Wedemire, District Award of Exceptional Contribution | 103 New Members |
| 43 Awards: Laura Grant, Certificate of Appreciation | 104 In Memoriam |
| 44 ARS Board of Directors Meeting, September 21, 2012 | 106 Errata |
| 45 Chapter/District/Special Donations | |
| 45 Rhododendron Calendar | |
| 46 In Memoriam: Patricia Brack | |
| 46E-mail Address for Plant Name Registrar | |
| 47 Letters to the Editor | |
| 48 ARS Annual Convention 2013 | |
| 87 Early Chapter Shows | |
| 98 Election of District Directors | |

Cover Photos

Clockwise from top left: The garden of Frank Fujioka by Frank Fujioka; *Rhododendron nuttallii* by Mike McCullough; *Rhododendron* 'Golden Flame' by Harold Greer; Photo Contest winner: Best in Contest, inside a rhododendron corolla by Marc Colombel; Photo Contest winner: Category Flower Truss or Spray winner, open pollinated native azalea by Earl Sommerville.

Maddenia Rhododendrons on the West Coast



Mike McCullough
San Jose, California

Photos by the author

(Modified from the Monterey Chapter Newsletter, April 2009)

When you visit the gardens in the San Francisco Bay Area, the Monterey Bay Area, and the areas of Fort Bragg and Eureka, California, you will see a type of



R. 'Joy Ridge'.



R. 'Spring Gold'.

rhododendron that particularly thrives in these areas. These are the *Maddenia* subsection rhododendrons (Davidian's (1989) *Maddenii* series), species that range from the monsoon rain forests of the Himalayas, south to Thailand, and then north to Vietnam. These species in their habitat can be either terrestrial or epiphytic, and because of that they make good container plants. Some of my *Maddenii* series rhododendrons, such as *R. veitchianum* (previously *R. cubittii*) 'Edinburgh', Bob Stanley's ('My Lady' × 'Rose Scott' 82-838), and Dr. Halvor Braafladt's (*R. lindleyii* × *R. nuttallii* HJB11) have been growing in 15 litre (four gal) pots containers for over 15 years. Many *Maddenii* species and hybrids have fragrant flowers, with *R. nuttallii* having the largest flowers of the series. Flower color ranges from white with some yellow (*R. liliiflorum*), white flushed rose (*R. veitchianum*), pink to rose (*R. carneum*), and yellow (*R. dalhousiae*). There are no species with red

flowers, but Bob Scott's hybrids 'Heart Throb' and 'Cherry Fields'* have red flowers. Maddenii series rhododendrons range in height from the dwarf *R. fletcherianum* to the almost tree-like shrubs of *R. maddenii* and *R. nuttallii*.

Maddenii series rhododendrons were divided into three Subseries by Davidian (1989)—Maddenii, Ciliicalyx, and Megacalyx, which are all now grouped in the subsection *Maddenia* (Chamberlain et al. 1996):

1) **Subseries Maddenii:** Have petioles that are grooved on the upper side, calyx is variable, and the corolla is tubular funnel shaped. These are medium to tall plants that may be lanky, growing to a height of 1.8 m (six feet) in ten years. Leaves are long and narrow. There were seven species in this subseries, but under the current taxonomic classification (Chamberlain et al. 1996), these species have been submerged into *R. maddenii* subspecies *maddenii*, and *R. maddenii* subspecies *crassum*. Flowers are generally white in color with yellow in the throat, though there are some that have pinkish flowers.

2) **Subseries Ciliicalyx:** These are lower, more compact plants and have smaller flowers that bloom earlier. The calyx usually is poorly developed, often ciliate. Some of the species in Davidian's (1989) subseries are:

1. *R. burmanicum*, from Burma (officially the Union of Myanmar), a compact plant with yellow to cream colored February to March blooming, 3.8 cm (1.5 inch) flowers, five to ten per



R. cubittii (now *R. veitchianum*).



R. burmanicum.



Unknown *Maddenia*.

truss. It is not fragrant and specimens can be seen at San Francisco Botanical Garden at Strybing Arboreum (Strybing) and the University of California Botanical Garden at Berkeley (UCBG).

2. *R. carneum*, from Burma, has fragrant, April to May blooming, 6.4 cm (2.5 inch), flesh pink flowers in trusses of four to five. A specimen can be found at Strybing, where It was seen in bloom on January 12, 2004.



R. carneum.



R. 'Dr Halvor Braafladt'.



R. nuttallii.

3. *R. cubittii*, now called *R. veitchianum*, a free flowering native of Burma, has February to April blooming, 11.4 cm (4.5 inch), white flushed rose flowers that have a yellow throat, in trusses of two to four. Before the Great Freeze in the San Francisco Bay area of 1990, this was quite often the first rhododendron in my collection to bloom. The stem and branches of this species have a smooth, brown peeling bark. *R. veitchianum* has a rough bark, whereas Davidian's (1989) "cubittii", whose classification I prefer, was suggested as a separate species due to differences in type of bark, petioles and branchlets; surface and shape of the leaf; and that "cubittii" has a larger flower. Several forms that are available in the San Francisco area include 'Ashcombe', Edinburgh form, and 'UCBG Pink'*. My plant of the 'Edinburgh' form, growing in a container, was heavily damaged in the 1990 freeze and it took three years for it to bloom again. Bob Scott used 'UCBG Pink'* in the development of 'Rose Scott'. I have been crossing the Edinburgh form and 'Ashcombe' with some later 'Bob Scott' hybrids in an attempt to create deep pink to red hybrids with larger fragrant flowers. The species is at Strybing, the University of California Botanical Garden (UCBG), and at the Mendocino Coast Botanical Garden (MCBG).

4. *R. johnstoneanum*, a native of northeastern India, is a broadly upright shrub with pale yellow to creamy white, fragrant, March to May blooming, 5.9 cm (2.3 inch) flowers in trusses of three to four. A form known as 'Double Diamond' has double flowers. It is hardier than most species, and I noticed it planted in the ground around both Seattle and Portland. Specimens can be seen at Strybing, UCBG, and at the MCBG.

Ciliicalyx series species have been used to create low growing hybrids, as when hybridized, bring tall growing species down in size, such as Bob Scott's 'Scott's Starbright' (syn. 'Starbright') and 'Starbright III'*, which are ('Else Frye' × *R. dalhousiae* var. *dalhousiae* (previously *R. rhabdotum*).

3) **Subseries Megacalyx:** This subseries includes some of the best Maddenii rhododendron series species for hybridizing and have been used to create superb hybrids like 'Mi Amor', 'Patricia Marie', 'Alpine Snow', 'Virginia Stewart', 'Bill Massey', 'Parlevous'*, Hal Braafladt's (*R. lindleyi* × *R. nuttallii* HJB11), 'Southern Cloud', 'Marcia Ann', 'Scott's Starbright' and 'Starbright III'*, 'Roy Hudson', 'The Winner'*, 'Tyermanii', and 'Countess of Haddington'. All these rhododendrons have large fragrant flowers.

As far as I know, the Megacalyx subseries species that are in the nursery trade are *R. dalhousiae*, *R. goreri*, *R. grothausii*, *R. liliiflorum*, *R. lindleyi*, *R. megacalyx*, *R. nuttallii*, and *R. taggianum*. I now have at least one of these outstanding rhododendron species in my collection with the exception of *R. taggianum*, which I used to have.

Subseries Megacalyx is my favorite subseries due to their outstanding flowers. These medium to tall shrubs



R. 'Sabrina Adler'.



R. 'Saffron Meadow'.



R. 'Scott's Starbright'.

have a tendency to be lanky, growing to 1.8 m (six feet) in ten years. The petioles are convex on the upper side, the calyx is usually large and leafy, and the corolla is tubular campanulate or tubular funnel shaped. There are a number of distinct species in this subseries that make excellent garden plants:



R. 'Scott's Valentine'.



R. crassum.



R. 'Patricia Marie'.

1. *R. nuttallii*, a native of India and Burma, is the best species of this series. The April to May blooming, 10.2-15.2 cm (4-6 inch) long white flowers come in trusses of four to over ten flowers. The throat of the flower is suffused yellow and the lobes are sometimes tinged pink. The flowers are extremely fragrant and can easily fill up a room. The 12.7-20.3 cm (5-8 inch) long leaves somewhat resemble that of a loquat. Mature plants have peeling bark and several forms have purplish new foliage. This species is used extensively used in hybridizing. There used to be a large plant at Strybing that was the male parent of 'Mi Amor'. An excellent form of *R. nuttallii* is 'Jack Evans', developed by Jack and Fleurette Evans of Oakland. I had a 'Jack Evans'* in a 15 litre (four gal) pot container that took the direct blast of the 1990 Freeze and was heavily damaged; it did not bloom again until 1994. The best form of *R. nuttallii* is the Bowman form, which has purplish new foliage. There was a good plant of this form at Peter Schick's garden in Fort Bragg. When I last visited Peter, he informed me that the Rhododendron Species Foundation in Federal Way, WA, is propagating the Bowman form of *R. nuttallii*. Hopefully more nurseries will carry the Bowman form. This species can be seen at Strybing, MCBG and Humboldt

Botanical Garden (HBG) in Eureka, CA.

2. *R. lindleyi* has a somewhat smaller flower than *R. nuttallii*, is not quite as fragrant, and has narrower leaves. *R. lindleyi* comes from Nepal, Sikkim, Bhutan, Assam, and Tibet and blooms in April and May. In the 1950s, Maury and Fran Sumner took a container plant of *R. lindleyi* to Strybing and asked the Director what would be a good plant to pollinate it with. The plant recommended was *R. nuttallii*, and the result is the outstanding hybrid 'Mi Amor'. There are good forms of this species at the MCBG and HBG.

3. A similar species to *R. lindleyi* is *R. grothausii*, which is native to Tibet. In the 1995 California Chapter flower show, I won a trophy with *R. grothausii*.

4. *R. dalhousiae*, from Nepal, Sikkim, Bhutan, and Tibet, has oblong to oblong obovate leaves that are similar but smaller to those of *R. nuttallii*. It blooms in April and May with ten cm (four inch) long yellow flowers in trusses of five. It grows at Strybing.

5. *R. dalhousiae* var. *dalhousiae* (Davidian's (1989) *R. rhabdotum*), from Tibet, Bhutan, and Assam, is similar to *R. dalhousiae*, but blooms in July or August and has five red racing stripes on a yellow flower that comes in trusses of four to six. Bob Scott used this species extensively in his hybridizing. 'Butterhorn', 'Scott's Starbright', and 'Starbright III'* are hybrids of *R. dalhousiae* var. *dalhousiae* currently in the market. There used to be several plants of *R. dalhousiae* var. *dalhousiae* at Strybing.

In the western United States, there has been much hybridizing of Maddeni series rhododendrons. A long time ago, Ev Farwell, a nurseryman and one of the founding members of the California ARS Chapter, said that one could learn a lot about a rhododendron, such as growth pattern, flower size and color, and time of bloom based upon the heritage of a plant. With information on the crosses of the western United States hybrids, it should be possible to determine what type of plant a Maddeni hybrid will be.

Jim Gerdeman, from Yachats, Oregon, hybridized 'Coastal Spice'



R. scopulorum.



R. 'Virginia Stewart'.

((‘Fragrantissimum’ × *R. burmanicum*) × *R. edgeworthii*), and created other hybrids such as (‘Mi Amor’ × *R. burmanicum*). ‘Coastal Sugar’* is a sister seedling of ‘Coastal Spice’ and has glossy foliage. Dr. Richard Anderson, from Eureka, California, created ‘Doctor Richard Anderson’, ‘Humboldt Sunrise’, ‘Quala-a-wa-loo’, and ‘Super Jay’, which are all crosses of (‘Else Frye’ × *R. johnstoneanum*). These were raised by Dr. Halvor Braafladt, from Eureka, California, who created several outstanding rhododendrons like ‘Patricia Marie’ (*R. nuttallii* × (*R. lindleyi* × *R. dalhousiae*)), ‘Hope Braafladt’ (*R. lindleyi* × ‘Countess of Haddington’), and (*R. lindleyi* × *R. nuttallii*) HJB 11. Catherine Weeks from Eureka, California also created several Maddenii series hybrids.

Paul Bowman, an early Fort Bragg rhododendron hybridizer, was responsible for Maddenii series hybrids like ‘Else Frye’ (very likely *R. edgeworthii* × *R. ciliacalyx*), ‘California Gold’ (‘Else Frye’ × ‘El Dorado’), ‘Lartag’ (*R. taggianum* × unknown), and ‘Reine Long’ (*R. taronense* × Else Frye). ‘Else Frye’ was acquired from Else Frye as a form of *R. edgeworthii*, but this rhododendron is actually a hybrid, very likely a cross of *R. ciliacalyx* × *R. edgeworthii*. Quite a few Maddenii series hybrids, such as ‘California Gold’, ‘Reine Long’, ‘Opal Dawn’, ‘Rose Scott’, ‘Starbright’, ‘Starbright III’, ‘Alfred Martin’, ‘Kimberly Anne’, and ‘Paul Molinari’ have in their heritage ‘Else Frye’. Some of the ‘Else Frye’ hybrids have been used to create flowers that range in color from deep pink to red. Bob Scott’s ‘Cherry Fields’* and ‘Heartthrob’, both with red flowers, are third, fourth, or fifth generation hybrids. ‘Else Frye’ is the ‘Lem’s Cameo’ of Maddenii rhododendrons.

John Druecker, another early Fort Bragg rhododendron hybridizer, was responsible for the Maddenii hybrids ‘Bill Massey’ (*R. ciliatum* × *R. nuttallii*), and ‘Conchita’ (*R. ciliacalyx* × *R. moupinense*). Charles Richards, another Fort Bragg nurseryman, is noted for his deciduous azalea hybrids, but so far none are named. He also created the Maddenii series hybrid ‘Alpine Snow’ ((*R. lindleyi* × *R. dalhousiae*) × *R. taggianum*) which has large fragrant white flowers similar to ‘Mi Amor’.

Peter Schick, who died in 2008 at the age of 91, lived in Fort Bragg. He also created a number of Maddenii and vireya hybrids and had the Bowman form of the Maddenii species *R. nuttallii*. It is hoped that some of the nurseries in Fort Bragg will propagate this form of *R. nuttallii*. Some Maddenii series hybrids created by him include ((*R. lindleyi* × *R. nuttallii*) × (*R. dalhousiae* × *R. taggianum*)), (‘Alpine Snow’ × ‘Else Frye’), (‘Alpine Snow’ × (((*R. johnstoneanum* × *R. veitchianum*) × *R. moupinense*) × ‘Rose Scott’)), (‘My Lady’ × (*R. burmanicum* Cox × *R. cuffeanum*)), and (((*R. johnstoneanum* × *R. veitchianum*) × *R. moupinense*) × ‘Rose Scott’). Some of these hybrids used advanced Bob Scott hybrids in their creation.

Len Charvet, from Fort Bragg, who was active in the organization of the Mendocino Coast Botanical Garden, created some excellent rhododendrons that I have seen in his garden. Some of his Maddenii series crosses are a sister seedling of (‘Alpine Snow’ × *R. pendulum*), (*R. nuttallii* × a sister seedling of ‘Alpine Snow’) × self), ((*R. burmanicum*

× ‘California Gold’) × self), (*R. dendricola* × ‘Lake Lorraine’), and (*R. burmanicum* Cox × ‘Fragrantissimum’). Len Charvet’s hybrids are currently being evaluated by the Mendocino Coast Botanical. Hopefully, these will be released to the nursery trade like Bob Scott’s hybrids. A recently released Len Charvet Maddeni series hybrid is ‘General Braxton Bragg’, which has large yellow flowers.

Bob Stanley, from Fort Bragg created hybrids like a sister seedling of (‘Alpine Snow’ × self), (‘My Lady’ × ‘Rose Scott’ 82-838), and (‘Rose Scott’ × self 81HX11). I used to have all three of these, which I obtained from Bob Stanley. The crosses involving ‘Rose Scott’, which have pink and white flowers, have been thriving in 15 litre (four gal) pots containers at the Aptos garden of Vivian McCullough for many years.

Augustine Luna, from Occidental, is using Bob Scott hybrids and other Maddeniis, and has (‘My Lady’ × ‘Smiley’*), (‘Fragrantissimum Improved’* × 5F84#6), (‘Owen Pearce’ × ‘My Lady’) which has pale yellow flowers, (‘Julian Brambly’* × ‘Else Frye’), and (‘Mysterious Maddeni’* × ‘Lake Lorraine’). The rhododendrons that have “Luna” in their name that you see at “ProBuild Garden Center” and other nurseries, such as the Maddeni series hybrids ‘Luna Tapestry’* and ‘Luna del Sol,’* were also created by Augustine.

Rich Parle from Sebastopol, California, raised a sister seedling of ‘Bill Massey’, and named it ‘Parlevous’*. Fred Cummings from Orinda, California, created Maddeniis like ((*R. nuttallii* × (*R. dalhousiae* × *R. lindleyi*)) × *R. dalhousiae*).

Emily Nelson, a member of the California Chapter brought several of her *R. formosum* hybrids to a meeting of the California Chapter, and I acquired one of these and am using it in my hybridizing. This plant has fragrant white flowers.

However, Bob Scott, who lived in Kensington, was the premier hybridizer of Maddeni series of rhododendrons. After his death over ten years ago, his hybrids were taken to Enjoy Rhododendrons Nursery (no longer in business), where they were being evaluated and from whom good plants were being introduced to the public. Some of Bob Scott’s Maddeni hybrids include ‘Beverly Court’* (a complex cross of several species and ‘Else Frye’ that has pink flowers), ‘Butterhorn’ (‘El Dorado’ × *R. dalhousiae* var. *dalhousiae*), ‘Candlelight’* (a complex cross of several species and ‘Else Frye’ that has pink flowers), ‘Cherry Fields’* (a complex cross of several species and ‘Else Frye’ that has red flowers), ‘Coral Sunrise’* (Royal Flush Group orange form × Lady Chamberlain Group ‘Golden Queen’), ‘Curious Yellow’* (*R. burmanicum* Cox × (*R. johnstoneanum* × *R. xanthostephanum*)), ‘Heartthrob’ (a complex cross of several species and ‘Else Frye’ also with red flowers), ‘Joy Ridge’ (‘Rose Scott’ × (*R. burmanicum* × *R. chrysodoron*)), ‘Lake Lorraine’ (*R. burmanicum* Cox form × *R. cuffeanum*), ‘Lake Merritt’* (‘Rose Scott’ × sister seedling of ‘Scott’s Valentine’), ‘Lemon Cascade’* ((Eldorado Group × *R. leucaspis*) × unknown), ‘Meadowgold’ (*R. burmanicum* × ‘Lemon Mist’), ‘Millicent Scott’ (*R. racemosum* × ‘Saffron Queen’), ‘O’Keefe’* (((*R. burmanicum* KW × (*R. johnstoneanum* × *R. dalhousiae*)) × *R. edgeworthii* KW), ‘Opal Dawn’ (‘Else Frye’ ×

'Lemon Mist'), 'Parker Smith' (*(R. johnstoneanum* × *R. veitchianum*) × *R. chrysodoron*), 'Pink Luster'* (*R. burmanicum* KW × *R. moupinense* Strybing), 'Prairie Gold' (('El Dorado' × *R. leucaspis*) × 'Lemon Mist'), 'Rose Scott' ('Else Frye' × (*R. johnstoneanum* × *R. veitchianum* UCBG Pink)), 'Sabrina Adler' (*R. ciliicalyx* × *R. moupinense*), 'Saffron Meadow'* (*(R. burmanicum* KW form × *R. chrysodoron*) × *R. valentinianum*), 'Scott's Maddenii Hybrid'* (an open pollinated seedling in the Maddenii series with large *R. maddenii*-looking white flowers), 'Scott's Valentine'* (*(R. johnstoneanum* × *R. veitchianum* UCBG Pink) × *R. moupinense*) × 'Rose Scott'), 'Scott's Starbright', and 'Starbright III'* (both latter hybrids have large yellow flowers with red racing stripes). 'Scott's Starbright' is a cross of ('Else Frye' × *R. dalhousiae* var. *dalhousiae*) that previously Bob Scott catalogued as 5F68#2. Some time after Bob Scott decided to name 5F68#2 'Scott's Starbright', he asked several of his friends, including myself, if the sister seedling 5F86#3 was worthy of being named. We said yes, and the result is that this plant was named 'Starbright III'* because it was the third plant of the ('Else Frye' × *R. dalhousiae* var. *dalhousiae*) cross, which was the fifth cross that Bob Scott did in 1968. When I saw these plants growing in Bob Scott's garden in Kensington, they were over fifteen years old, and I was quite a bit taller than the plants, since most of Bob Scott's hybrids were designed to fit into the smaller garden.

Jack and Fleurette Evans, who lived in Oakland, were responsible for the Maddenii series hybrids 'Alfred Martin' (*R. edgeworthii* × 'Else Frye'), 'Kimberly Anne' (*R. veitchianum* pink form × 'Else Frye'), 'Lady Holland' (Lady Berry Group × *R. crassum* or *R. maddenii* ssp. *crassum*), 'Nan' (Lady Berry Group × *R. maddenii* ssp. *crassum*), and 'Paul Molinari' (*R. veitchianum* × 'Else Frye'); and the species forms *R. nuttallii* 'John Paul Evans', and a form of *R. taronense* that is very fragrant.

Bill Moyles, from Oakland, California, created Maddenii hybrids 'Taos' (*R. carneum* × 'Harry Tagg') and 'The Winner'* (which has large yellow flowers). Howard Kerrigan, from Hayward, created Maddenii hybrids 'Crème Fresh'* ('Countess of Haddington' × *R. burmanicum*), 'Heaven Scent'* ('Fragrantissimum' × *R. burmanicum*), 'Roy Hudson' (*R. burmanicum* × *R. nuttallii*), and 'Virginia Stewart' ('Countess of Haddington' × *R. nuttallii*). Maury and Fran Sumner were noted for their Maddenii series hybrids 'Fran Sumner' (Seta Group × *R. johnstoneanum*), 'Little Lou' ('Lucy Lou' × *R. valentinianum*), 'Martha Wright' (*R. burmanicum* × 'Fragrantissimum'), 'Mi Amor' (*R. lindleyi* × *R. nuttallii*), 'My Guy' ('Owen Pearce' × 'Mi Amor'), 'My Lady' ('Fosterianum' selfed), 'Owen Pearce' ('Saffron Queen' × *R. burmanicum*), and 'Saffron Prince' ('Saffron Queen' × *R. burmanicum* Cox form). One of their unnamed Maddenii series hybrids is a cross of *R. burmanicum* × *R. dalhousiae*, which has large yellow flowers. There are at least two of these plants at Monte Toyon Garden. I mentioned to Becky Steinbruner, who also was a friend of the Sumners, and who has done much work at the Sumner's Monte Toyon Garden in Aptos, that a good name for one of these plants would be Maury and Fran. A number of years ago Maury and Fran Sumner brought to a

California Chapter meeting several of their plants of the cross of *R. edgeworthii* × *R. vietchianum*. I obtained one of these, and it has been thriving in a 15 litre (four gal) pots container at my mother's garden in Aptos. Maury Sumner lived to be 93, and Fran Sumner lived to be 101 years old, and they were married for 67 years. Both Maury and Fran were active in the American Rhododendron Society for a very long time, and were charter members of the California Chapter, the oldest ARS Chapter in California. When I first saw rhododendron flowers at the 1975 San Mateo Chapter Flower show, the first plants that caught my attention were 'Mi Amor' and the Sumner's vireya cross of *R. laetum* × *R. zoelleri*.

Many of the hybrids of Maury and Fran Sumner can be seen either at the 1.2 ha (three acre) Monte Toyon Garden that they created in Aptos or at the 2 ha (five acre) Monte Toyon Rhododendron Garden, also in Aptos, created by Maury and Fran Sumner in the 1950s, is now part of Monte Toyon Camp, owned by the California Nevada Annual Conference of the United Methodist Church.

Howard Oliver, from Menlo Park, created among other rhododendrons 'Howard Oliver'* (*R. dallhousiae* × *R. lindleyi*). Bob Macintyre, from Cupertino, CA, now lives in Bandon, Oregon, created several Maddenii hybrids, including a hybrid with *R. edgeworthii*. I have also created many Maddenii series hybrids, but mainly for the ARS Seed Exchange. In the 2007 seed exchange, these included over 30 hybrid crosses, as I did not have the facilities for growing on rhododendron seedlings.

Finally, Nancy Ledyard, from Aptos, California, created several Maddenii series hybrids, but unfortunately she has yet to name and register any of her hybrids. John Hixson, from Watsonville, California, raised and named 'Fragrantissimum Improved',* which came from the ARS Seed Exchange (ARSSE Seed 82-738) and is a cross of *R. edgeworthii* × *R. ciliicalyx*.

Good displays of Maddenii series species and/or hybrids in Northern California can be found at the San Francisco Botanical Garden at Strybing Arboretum in San Francisco; the University of California Botanical Garden in Berkeley; the Lake Merritt Garden Center, 666 Bellevue Avenue, Oakland; and at the Mendocino Coast Botanical Garden in Fort Bragg. At the Humboldt Botanical Gardens in Eureka, there is a recently created garden with Maddenii series rhododendrons.

Sources of Maddenii series rhododendrons are:

- The plant sales at the San Francisco Botanical Garden (www.sfbotanicalgarden.org/plant_sales/plant_sales.htm);
- Sonoma Horticultural Nursery in Sebastopol, California <http://www.sonomahort.com/>;
- Singing Tree Gardens <http://www.singtree.com/> in McKinleyville, California;
- The Rhododendron Species Foundation www.rhodygarden.org in Federal Way, Washington.

* = not registered.

References

- Chamberlain, D., R. Hyam, G. Argent, G. Fairweather and K.S. Water. 1996. *The Genus Rhododendron. Its classification and synonymy*. Royal Botanic Garden Edinburgh, Edinburgh: 181 pp.
- Davidian, H.H. 1989. *The Rhododendron Species. Vol II. Elepidotes. Part 1. Arboreum-Lacteam*. Timber Press, Portland, OR: 344 pp.

Variation in Flame Azalea (*Rhododendron calendulaceum*) Germination Behavior and Seed Morphology in Five North Carolina Populations

Eric J. Limbird and Nathan C. Phillips
School of Agribusiness and Agriscience
Middle Tennessee State University
Murfreesboro, TN



Eric Limbird



Nathan Phillips

Summary

Flame azalea (*Rhododendron calendulaceum*) populations in the intermountain region of the Appalachian range fascinate me as a young researcher. Recognizing that the native populations of the flame azalea are in some cases limited to a few hundred plants requires the need for an understanding of some of these population's ecological characteristics and environmental tolerances so these populations can be optimally managed. For any population to persist, seeds must be viable and plants survive to produce more seeds, so this study focuses on seed germination characteristics.

To help develop this understanding, the relationship between seed size (overall area, length, perimeter, etc.) and daily germination percentage was determined by recording radicle [the embryonic root of the plant, which is the first part of a seedling to emerge from the seed during the process of germination] emergence patterns. We collected seed from five different flame azalea populations across North Carolina and their size measurements and germination features revealed that each of these populations had statistically different seed sizes and germination behavior traits. Variation in germination percentages between populations ranged from 42–73%, and seeds with larger seed perimeters germinated at a higher percentage, suggesting that larger seeds may have a higher chance of survival. Engine Gap seed collected on Roan Mountain had the highest overall germination percentage. Although we cannot be exactly sure

what causes these differences, knowing seed germination characteristics are relevant for seed selection, sowing rate, and planting schedules in propagation. Results also indicated that cold moist stratification (moist chilling for a set time) was not necessary for these populations, although it did increase the rate and uniformity of germination in two of the tested populations. Why seed germination rates differ between populations is not yet clear, and further studies on the different environments that impact seed characteristics and ultimately the plants themselves are desirable.

Abstract

Flame azalea (*Rhododendron calendulaceum*), a species endemic to the Appalachian mountain region of the Eastern U.S., is a species of horticultural and ecological significance. In the wild, this species exhibits a high degree of inter- and intra-population variation in morphological and physiological characteristics. Inherent differences among populations suggest that variations in germination behavior may exist in wild collected seeds. Investigation of the seed and site specific characteristics separating existing populations can potentially lead to an identification of a particular native seed source suitable for widespread propagation, and aid in the development of ecological preservation protocols. Our objectives were twofold: 1) investigate seed morphology differences in the studied populations, and 2) conduct standard germination studies, including cold stratification, and identify variation in germination characteristics between populations. Flame azalea seeds used in this study were collected from five populations located in North Carolina. Variations in overall seed and embryo parameters within and among the populations were identified. Significant differences in germination percentages existed between collections, with values ranging from 42.2% to 73.0% in non-stratified seeds, and 50.9% to 65.3% in seeds subjected to cold moist stratification. Significant differences existed between T_1 , T_{50} , and T_{10-90} values among populations. Seed perimeter measurements were positively correlated with germination percentage ($r^2 = 0.84$, $P = 0.029$). However, no other statistically significant correlations between seed size parameters and germination traits were detected. Cold moist stratification showed no significant improvement of overall germination percentages in the sources tested, but did behave differently in the rate and uniformity of germination in comparison to non-stratified seeds. Our findings demonstrate varying seed size parameters, and germination behavior specific to each seed population.

Introduction

The genus *Rhododendron* L. is comprised of around 900 species worldwide inhabiting diverse ecological and geographic environments (Davidian 1992; Hay, et al. 2006). The diversity within *Rhododendron*, and innumerable variations in plant characteristics from floral number, size, and vivid color, make rhododendrons one of the most popular landscape plants in Europe and North America (Väinölä 2000; Jordan 1973). Wi-

Table 1. Seed source locations, collection dates, elevation, and other characteristics of the seed sources used in these experiments.

Collection Site(s)	Elevation (m)	Coordinates	Hill Facing	NC County	Soil Series
Engine Gap (EG)	1721	N 36 06 W 082 06	SE	Mitchell	Wayah-Burton
Blue Ridge Pky. (BRP)	1673	N 35 18 W082 56	SE	Jackson	Wayah
Shot Pouch Trail (SPT)	1388	N 35 10 W 083 35	S-SW	Macon	Edneyville-Chestnut
Hooper Bald (HB)	1634	N 35 18 W 083 60	S	Graham	Breakneck-Pullback
Round Bald (ROAN)	1737	N 36 11 W82 10	SE	Mitchell	Wayah-Burton

despread rhododendron populations are the result of adaptive traits developed during years of various environmental selection pressures, leading to overwhelming plant and seed diversity evident in morphological, phenotypic, and physiological variation (Sauer 1991). A comprehensive understanding of correlating factors within an environment specific to each plant population is necessary when developing propagation protocols, providing information for collections, and ensuring accurate information on seed germination characteristics (Baskin and Baskin 2001; Phillips et al. 2010).

The flame azalea (*R. calendulaceum* Michx.), a deciduous woody shrub, is a species native to the Appalachian mountain region (Nilson 1986). Flame azaleas exhibit a wide range of inter- and intra-population diversity, indicating a potential for exploitation of this species for sustainable practices in landscape installation (Blazich et al. 2008). Native ecosystem restoration provides benefits that include regaining lost soil fertility, increasing genetic diversity, while providing crucial habitat for pollinators, and limiting the use of invasive exotics which damage plant communities (Baskin, 1988, Schulze, 1994). As one of the most diverse groups of flowering shrubs, rhododendrons and azaleas inhabit an instrumental role in ornamental horticulture cultivation (Dirr and Heuser 1987). Many native species, however, present unique challenges to their propagation that is directly related to variation in ecotypic adaptation (Baskin and Baskin 2001; Phillips et al. 2010). The environmental pressures specific to an area often directly correlate to the germination behavior causing a necessary investigation of each seed

Table 2. Mean values taken from 15 seeds randomly selected from each seed source. Values denoted by a similar letter within each column were not significantly different at $\alpha = 0.05$ (LSD).

Seed Lot	Total Length (mm)	Total Width (mm)	Total Perimeter (mm)	Total Area (mm ²)	Pericarp Length (mm)	Pericarp Width (mm)	Pericarp Perimeter (mm)	Pericarp Area (mm ²)
SPT	2.69 ^{bc}	0.86 ^c	7.40 ^{bc}	1.75 ^c	1.28 ^b	0.54 ^c	3.17 ^b	0.59 ^{bc}
ROAN	2.43 ^{cd}	0.87 ^c	7.16 ^{bc}	1.58 ^c	1.14 ^b	0.51 ^c	2.88 ^b	0.50 ^c
BRP	2.22 ^d	1.14 ^a	6.39 ^c	1.86 ^{bc}	1.22 ^b	0.64 ^{ab}	3.17 ^b	0.65 ^b
HB	3.21 ^a	1.06 ^{ab}	8.84 ^a	2.53 ^a	1.63 ^a	0.66 ^a	3.97 ^a	0.87 ^a
EG	3.02 ^{ab}	0.93 ^{bc}	7.94 ^{ab}	2.22 ^{ab}	1.74 ^a	0.56 ^{bc}	4.29 ^a	0.84 ^a

source (Baskin and Baskin 1988). The varying environmental characteristics found in native flame azalea populations, such as elevation, light, and temperature warrant analysis that focuses on seed source locations, site specific characteristics, and their influence on germination behavior. Investigating flame azalea will characterize differences in germination behavior between seed source locations, while investigating correlations between seed morphology, and facilitate a comprehensive understanding of the physiological and environmental challenges unique to this species. We hypothesize that we will see variation in seed morphology and germination behavior that is specific to each studied population. We theorized that relationships between seed size parameters and germination traits will be evident. The objective of this experiment is to test these hypotheses on five different wild populations of flame azalea that have distinct phenotypic differences and collections site population to better inform the development efficient site-specific propagation protocols.

Materials and Methods

Mature fruits were collected from five sites in North Carolina between October 9 and 12, 2010. Plant identification was aided by American Rhododendron Society members Don Hyatt, Jim Brant, and George McClellan. At each population site, seed pods that

Table 3. Germination percentage means in both stratified and non-stratified seeds. Values denoted by similar letter within each column were not significantly different at $\alpha = 0.05$ (LSD).

Seed Collection	Non Stratified	Stratified
SPT	65.2 ab	65.2 a
ROAN	48.6 cd	-
BRP	42.2 d	-
HB	60.9 abc	50.9 bcd
EG	73.0 a	65.3 ab

demonstrated the characteristics of being mature were randomly selected throughout the entire stand. Mature seed pods are distinguishable by having turned from green to brown and having completely dry. Throughout the larger populations, some plants had little or no seed, so in those populations plants with immature, or no seed, were not harvested. In the populations where the sample size was smaller, all viable seeds were collected from each plant in order to ensure an adequate representative sample of the population. The seeds were allowed to dry for a period of three weeks, after which they were separated from the capsule by hand, counted and stored dry at -4° C in paper envelopes.

Study Sites

Engine Gap (EG) seed was randomly collected from a diverse population of individuals numbering approximately 150 at Engine Gap in Mitchell County, NC (Table 1). The immediate environment surrounding the plants from this site consisted primarily of *Lycopodium* mosses, densely distributed native grasses, and a few fir trees. No deciduous tree cover exists in the immediate vicinity surrounding the flame azalea stand. The seed collection labeled Round Bald (ROAN) was taken from Round Bald in Mitchell County, NC, within 3.2 km (two miles) of the Engine Gap site (Table 1). The flame azalea populations of Round Bald and Engine Gap, while sharing similar environmental characteristics common to mountain balds, are separated geographically. The Round Bald population numbers approximately 75 plants scattered along a south-facing hill. The environment has the *Lycopodium* moss and thick vegetation of native grasses, but is completely devoid of all tree cover.

Table 4. Demonstrates differences in T_1 , T_{50} , and T_{10-90} mean values. Values denoted by similar letter within each column were not significantly different at $\alpha = 0.05$ (LSD).

Non-Stratified	T_1	T_{50}	T_{10-90}
SPT	7.20 abc	10.18 bc	5.39 b
ROAN	6.60 abc	9.63 bcd	7.25 b
BRP	7.32 ab	9.52 cd	6.72 b
HB	6.90 abc	10.81 ab	6.73 b
EG	7.42 ab	9.81 bc	5.81 bc
Cold Stratified			
EG	6.37 bc	7.92 e	2.98 d
SPT	5.97 c	8.5 de	4.35 cd
HB	7.70 a	11.5 a	9.93 a

Hooper Bald (HB), located in Graham County, NC (Table 1) seeds originate from the diverse population that covers approximately two ha (five acres) and consists of approximately 200 plants. This area differs in elevation, plant species, and environmental characteristics from collection sites at Round Bald and Engine Gap. Specifically, Hooper Bald has a distinct deciduous forest of oak and other varieties of hardwood trees along with a few evergreen species that grassy bald areas lack. The deciduous canopy cover and the decreased presence of *Lycopodium* species, contribute to habitat and environmental differences in comparison to the higher elevation bald areas found in Mitchell County, NC. Shot Pouch Trail (SPT) seeds were collected in an area predominantly covered by deciduous tree species, with an elevation of 1388 m, the lowest of our collection sites (Table 1). Along with deciduous tree cover, this area had no noticeable *Lycopodium* moss, making this environment markedly different from

the other collection sites. The area where these seeds were collected included three sole flame azalea plants. The plant community surrounding SPT consisted of high canopy deciduous species, few native grasses, and persistent deciduous leaf litter covering the ground.

The final seed collection site was from the Blue Ridge Parkway (BRP) near mile marker 425 (Table 1). This seed was collected from the side of the road where approximately 35 individual flame azaleas species thrive. One unique characteristic of the BRP site is the presence of another rhododendron species, great laurel (*R. maximum*). This area has *Lycopodium* moss, various native grasses, and deciduous tree cover similar to other sites in our study. However, this collection site differs from the others due to an uncharacteristically steep angled slope.

Seed Measurements

Seed size parameters, including length, width, perimeter, and area, of whole seeds and pericarps, were evaluated in 15 seeds randomly selected from each of the five populations. The seeds were measured individually using a National dissecting scope under 10x magnification. The use of Motic Images Plus 2.0m ML software was used to determine accurate seed parameter measurements.

Germination Experiments

Seeds from each of the five populations were subjected to standard germination testing. This experiment consisted of five replications of 30 seeds pooled from each population. The seeds were placed in 47 mm petri dishes containing sterile filter pads. A solution of distilled water and Captan (0.9 g/L) was added at 2.2 ml per petri dish. The seeds were subjected to a 16:8 hr photoperiod under fluorescent lighting (2 - Agrosun 2450 lumen tubes) in a $\sim 20^{\circ}$ C germination environment. The seeds were checked daily for germination for a period of 22 days. In addition, cold moist stratification was also performed on seeds from three of the five populations (EG, HB, and SPT). These seeds were imbibed, and then subjected to two weeks of chilling at $\sim 4^{\circ}$ C (dark) before being placed in the $\sim 20^{\circ}$ C germination environment under the same lighting and photoperiod regime as the non-stratified seeds. Germination was defined as radicle emergence of greater than one mm. Time to first germination (T_1) was simply a measure of the number of days for the first seed to germinate. The time to 50% germination (T_{50}) was used as a measure of germination rate and the time between ten and 90% germination (T_{10-90}) was used to indicate the uniformity of germination. These parameters were calculated using the following calculations adapted from Coolbear et al. (1984) and Farooq et al. (2005):

$$T_{50} = t_i + \frac{(0.5N - n_i)(t_i - t_j)}{n_i - n_j}$$

$$T_{10-90} = \left(t_i + \frac{(0.9N - n_i)(t_i - t_j)}{n_i - n_j} \right) - \left(t_j + \frac{(0.1N - n_j)(t_i - t_j)}{n_i - n_j} \right)$$

where N is the final number of germinated seeds for each replication and n_i and n_j are the cumulative number of seeds germinated by adjacent counts at times t_i and t_j when $n_i < 0.5N < n_j$ for T_{50} , and either $n_i < 0.9N < n_j$ or $n_i < 0.1N < n_j$ for the T_{10-90} calculations. Data were analyzed using PROC GLM in SAS version 9.2. Means separation testing was conducted using LSD at $\alpha=0.05$. Regression analyses were performed using PROC REG in SAS version 9.2 to determine relationships between seed size parameters and germination behavior. All germination percentage data were arcsin transformed prior to analyses.

Results

Significant differences in seed size parameters (perimeter, area, length and width of whole seeds and the pericarps) were detected among the tested populations (Table 2). The mean total area of the seeds ranged from 1.58 (ROAN) to 2.53 (HB) mm² (Table 2). Seeds from the HB and EG populations were significantly larger than the other populations in almost all measured parameters (Table 2). Likewise, significant variability in mean germination percentages existed among seed source collections with values ranging from 42.2 to 73.0% (Table 3). There were no significant differences in germination percentage between seeds subjected to cold stratification and their non-stratified counterparts (Table 3). However, cold stratified seeds behaved differently in the rate and uniformity of germination in comparison to non-stratified seeds (Table 4). Seeds from the cold stratified EG and SPT populations had lower T_{50} and T_{10-90} values, while the cold stratified HB seeds exhibited higher T_{50} and T_{10-90} values (Table 4). No significant differences in mean T_1 , T_{50} , and T_{10-90} values existed between non-stratified seeds, apart from those in the BRP population which had a lower T_{50} than the HB lot (Table 4). Regression analyses yielded no demonstrable relationships between the seed size parameters and germination behavior except for a positive linear response of germination percentage in response to the total seed perimeter ($r^2 = 0.84$).

Discussion and Conclusions

The experiments in this study demonstrate that wild flame azalea populations exhibit a high degree of variability in seed morphological characteristics and seed germination characteristics. However, it is unclear how much of this variation is due to genetics versus environmental factors like site-specific climatic variation. Nevertheless, these data provide a record of variability in this species that can serve as a starting point for further studies and propagation protocol development. One propagation question we addressed was if cold moist stratification offered any advantage in seed germination. Although many temperate plants respond well to cold stratification, including some *Rhododendron* species, we had not come across any information suggesting the use of cold stratification for flame azaleas. Our data suggest that cold moist stratification may be useful. Although no increase in germination percentage was detected, cold moist

stratification did increase the rate (T_{50}) and uniformity (T_{10-90}) of germination in two of the tested populations (EG and SPT). The Hooper Bald population (HB) appeared to have less uniformity and a slower rate of germination when subjected to cold moist stratification. However, upon re-examination of the data, we found two of the five replications had extremely low germination counts that skewed the T_{50} and T_{10-90} results. For this reason, we are not confident that the obtained values are representative of the effects of cold moist stratification in this seed lot. Further study with more populations, larger sample sizes, and/or varying stratification durations could provide additional clarification of these questions.

Small sample sizes and a restricted number of populations also likely limited our ability to detect relationships between seed size parameters and germination traits. Interestingly though, even with our low sample sizes, we were still able to identify a significant positive relationship between seed perimeter and germination percentage. This measurement incorporates the total seed coat including the wings. We're confident that this relationship is related to the ability of the seed coat or winged appendage to remain intact which speaks to the overall fitness of the plant producing the seed. The loss of this winged appendage might be evidence of subpar environmental conditions over the growing season and the impact on the growth and development of the seeds. Regression analyses investigating relationships of other seed parameters and germination traits did not expose any significant relationships, but yielded some possible avenues of research for later studies. We anticipate that future work incorporating larger sample sizes will likely be able to detect more interesting relationships.

Acknowledgements

We would like to thank Don Hyatt, Jim Brant, George McClellan, Doug Jolley, Karel Bernady, Norman Beaudry and others in the American Rhododendron Society for offering their expertise and assistance in obtaining seeds and locating collection sites. We would also like to recognize Marshall Hamilton for his assistance in the course of the study. This project was funded by an undergraduate research grant through the Middle Tennessee State University office of Research and Sponsored Programs.

References

- Baskin, C.C. and J.M. Baskin. 1988. Germination ecophysiology of herbaceous plant species in temperate regions. *Am. J. Bot.* 75(2): 286-305.
- Baskin, C.C. and J.M. Baskin. 2001. *Seeds: Ecology, Biogeography, and Evolution of Dormancy and Germination*. Academic Press: 666 pp.
- Blazich, F.A. and B.D. Rowe. 2008. *The Woody Plant Seed Manual*. U.S. Dept. Agriculture Forest Service: 943-951.
- Coolbear, P., A. Francis, and D. Grierson. 1984. The effect of low temperature pre-sowing treatment under the germination performance and membrane integrity of artificially aged tomato seeds. *J. Exp. Botany* 35: 1609-1617.
- Davidian H.H. 1992. The *Rhododendron* species. Volume 3. *Elepidotes continued, Neriiflorum Thomsonii, Azaleastrum and Camtschaticum*. Portland, OR: Timber Press. 381 pp.

- Dirr, M.A., and C.W. Heuser Jr. 1987. *The Reference Manual of Woody Plant Propagation: From Seed to Tissue Culture*. Athens, GA: Varsity Press: 403 pp.
- Hay, F., J. Klin, and R. Probert. 2006. Can a post-harvest ripening treatment extend the longevity of *Rhododendron* L. seeds? *Sci. Hort.* 111(1): 80-83.
- Farooq M., S.M.A. Basra, K. Hafeez, and N. Ahmad. 2005. Thermal hardening: a new seed vigor enhancement tool in rice. *J. Integ. Plant Biol.* 47: 187-193.
- Jordan, P.G. 1973. A modern method for the propagating rhododendron from seed. *Quart. Bull. American Rhododendron Soc.* 27(4): 220-231.
- Nilsen, E.T. 1986. Quantitative phenology and leaf survivorship of *Rhododendron maximum* in contrasting irradiance environments of the southern Appalachian mountains. *Am. J. Botany.* 73(6): 822-831.
- Phillips, N. 2010. Seed and bulb dormancy characteristics in new world *Allium* L. Amaryllidaceae): A review. *Int. J. Botany* 6: 228-234.
- Phillips, N., D. Drost, B. Varga, L. Shultz, and S.E. Meyer. 2010. Germination characteristics along altitudinal gradients in three intermountain *Allium* spp. (Amaryllidaceae). *Seed Tech.* 32(1): 15-25.
- Sauer, J.D. 1991. *Plant Migration: The Dynamics of Geographic Patterning in Seed Plant Species*. University of California Press: 277 pp.
- Schulze, E.D. and H.A. Mooney. 1994. *Biodiversity and Ecosystem Function*. Springer-Verlay: 521 pp.
- Väinölä, A. 2000. Polyploidization and early screening of *Rhododendron* hybrids. *Euphytica.* 112(3): 239-244.

Eric J. Limbird is an undergraduate student in Plant and Soil Science and Nathan C. Phillips is an Assistant Professor of Horticulture, both in the School of Agribusiness and Agriscience, Middle Tennessee State University, Murfreesboro, TN.

***Rhododendron* ‘Fastuosum Flore Pleno’**

(From the Feb 2012 Eureka Chapter newsletter)

R*hododendron* ‘Fastuosum Flore Pleno’, also known as ‘Fastuosum plenum,’ is one of the few double to semi-double flowering rhododendrons. Bred in 1846 by Geber Francoisi, of the Francoisi Brothers nursery in Ghent, Holland, ‘Fastuosum Flore Pleno’ is a cross between *R. catawbiense* and *R. ponticum*. Not all of the flowers are double, and the doubling happens when the stamens (male reproductive parts) turn into petals instead, sometimes resembling crumpled tissue. Each flower is a light lavender color with a greenish-yellow to brownish-gold flare on the upper petals. The flowers last longer than in most other rhododendrons as they are sterile, so will not get pollinated and then fade.

The plant has excellent dark-green foliage, and will make a very sturdy, handsome plant in the garden. Although it grows well in full sun, it probably is best looking in partial shade. It makes flower buds easily, so reliably makes a show every year even with little care. *R. ‘Fastuosum Flore Pleno’* won the Royal Horticultural Society’s Award of Garden Merit in 1993.

Don Wallace
McKinleyville,
California



ARS Eastern Regional Conference in Nova Scotia

Reserve the dates October 4-6, 2013, for a very promising ARS Eastern Regional Conference in Nova Scotia, a wonderful time of year to visit this part of the world.

As described at the beginning of *The Natural History of Nova Scotia*, “Nova Scotia is a kind of crossroads of the North Atlantic, where two ancient continents met millions of years ago, where continent and ocean now meet, and where the southerly climatic and forest regions make the transition into the northerly Boreal Zone.”

“This transitional nature is reflected in a wide variety of forest associations and in the intermingling of plants and animals that have very northerly ranges with those that can be found in Louisiana or the Carolinas.”

“The meeting of land and water, maximized by the province’s long and convoluted coastline, results in a variety of environments that are physically dynamic and biologically productive. The coastal and offshore waters are influenced by both the cold Nova Scotia Current and the warm North Atlantic current—the northern continuation of the Gulf Stream.”

As part of the conference tours program, you will opportunity to explore the Barren Habitat of the Peggy’s Cove area, “a rocky heathland with dwarf shrub and lichen vegetation,” as well as the iconic Peggy’s Cove Lighthouse and the nearby seaside garden, established by Walter Ostrom, that combines native ericaceous plants with their exotic relatives .

You may also see the diversity of the Nova Scotian landscape on a drive to the “Jewel of Annapolis Valley”—the Annapolis Royal Historic Gardens. The Gardens were recognized in 2012 as one of the “Top five North American Gardens Worth Travelling For!” <http://www.historicgardens.com>

The conference base will be the Holiday Inn Harbourview Hotel & Conference Centre on the Dartmouth side of the great Halifax harbour. It offers easy access to Halifax Citadel, the Public Gardens, and the Halifax waterfront with its Maritime Museum of the Atlantic, Pier 21, and Seaport Farmer’s Market. The Halifax Public Gardens, “one of the finest surviving examples of Victorian Gardens in North America . . . began on Common Land by the Nova Scotia Horticultural Society in 1836.”

<http://www.halifaxpublicgardens.ca>

Watch for program details and registration information in the Spring issue of JARS, and on the websites for the ARS and the Atlantic Rhododendron & Horticulture Society: <http://www.atlanticrhodo.org/>

In the meantime, for travel information see: https://www.novascotia.com/en/home/planyourtrip/travel_guides/default

The Natural History of Nova Scotia is available digitally at: <http://museum.gov.ns.ca/mnh/nature/nhns>

Shelia Stevenson
Ferguson’s Cove,
Nova Scotia,
Canada



Groom Early for Bigger and Better Flower Trusses

(Reprinted from the Eureka Chapter
October 2012 newsletter)

It's fall and most of our rhododendrons that will be blooming for the flower show have set their buds. It's not enough to just wait for spring and the week of the show to go out and find flower trusses that may be winners. Now is the time to start looking for buds that could open into winning trusses and grooming these buds and leaves to make bigger and better flower trusses. We are always striving for creating that perfect truss and leaves combination that will win "Best of Show" or at least a blue ribbon. Here is how to do that.

First thing to do is to protect your plants, flower buds and leaves from the pests that want to eat them up. In my yard the biggest enemy of winning trusses is slugs. First they chew on the new leaves as they emerge, then the new fully open leaves and then they like to chew on the flowers as they open. There is nothing worse than having a winning truss, then come out to pick it for the show and find that it has been eaten on by a big banana slug [*Ariolimax* spp.]. There are

a number of things you can do to control slugs, but I find that physically removing them from my yard works best for me. The second big enemy is the black vine weevils [*Otiorhynchus sulcatus*]. They like to chew up the edges of the leaves. Weevil serrated leaves don't score well with the judges. There are a number of biological, physical and chemical controls you can use to combat weevils. Check out the *JARS* article "Practical Black Vine Weevil Management" (Cowles 2003), which is also on the ARS website: <http://www.rhododendron.org/v57n4p219.htm>. Use of beneficial nematodes works

Dennis McKiver
Fort Bragg, California

Photos by the author



Fig. 1.



Fig. 2.

well for me. There are other minor pests and diseases that can cause problems, but most can be controlled by a periodic spraying of horticultural oil.

The second thing to do is get those leaves greened up to where they are supposed to be. Don't fertilize too much in the fall, or you could turn those buds into a late spurt of growth resulting in no flowers and possibly new young leaves that could be damaged by frost. I like to apply Ironite® (Mineral Supplement 1-0-1) in the fall to green up the leaves and fight chlorosis caused by a lack of iron or soil that is not acidic enough. You



Fig. 3.



Fig. 4.



Fig. 5.

could also try a light foliage feeding with a quick acting fertilizer such as Miracle Grow® (20-20-20). Rhododendrons need acid soil conditions to be able to uptake and make use of the iron in the soil. If you have chlorosis in your leaves that is not fixed by the addition of iron and soil acidifiers, then you may have a bigger problem with that plant. Chlorosis may also be shock-induced by damage to the roots from root rot, severe cutting of roots, root weevils or even root death due to over fertilization. Fig. 1 is an example of a rhododendron suffering with chlorosis.

The third and probably most important thing to do is to find those potential winning buds and groom them now for the biggest and best trusses. When I was a kid, one of my summer hobbies was raising giant pumpkins. The way I did that was to create a planting mound well away from other plants, so it has nothing else to compete with. I would mix in lots of organic mater and fertilizer, then plant several seeds in the mound. When the seeds sprouted and started to grow, I'd pick out the biggest and best plant, save it and eliminate all the others. Then I allowed it to grow and start to set pumpkins. There would be four or five runners with several pumpkins each starting to grow. I would pick the biggest

best-looking pumpkin on a runner and eliminate all the other pumpkin starts. Now all the energy the plant produces is going into its one remaining fruit. I would even cut off the runner just past the pumpkin and cut off all the ends of all the other runners, so that all the energy flowing down the runner was ending in the one and only pumpkin and not trying to grow more runners. The plant has no choice but to put all its reproductive energy into its one remaining fruit. This would result in a larger than normal pumpkin.

I now like to apply this same principle to growing rhododendron trusses for show entries. First I find potential upright truss buds with good leaves. I then eliminate any extra buds. Some stems may sport several flower buds (called “hammer heads”) and multiple leaf buds. I take off all the extra flower buds, leaving only the central terminal bud, and I take off all the leaf buds and minor excess, damaged or deformed leaves. See the before (Fig. 2) and after (Fig. 3) photos. Then I remove any additional branches on the same stem that I want to keep that don't have flower buds, forcing all the energy to this branch into the last remaining stem and flower (Figs 4 and 5).

Then I watch it grow through the winter and spring. If any additional leaf buds develop along the way I remove them, especially if they arise at the base of the terminal bud. These leaf buds will often push an otherwise upright terminal bud over to the side. This may result in a flower truss that is not perfectly upright and what would have been a trophy winner is now something less. Figs. 6 and 7 (before and after removal) show a leaf bud under the flower bud that is starting to push the bud over to the side, along with one bad leaf that when removed makes the whole truss look much better. The fall is the time to remove things like this. Do not wait until the spring when you will pick the truss for the show.



Fig. 6.



Fig. 7.

Reference

Cowles, R.S. 2003. Practical black vine weevil management. *J. American Rhododendron Soc.* 57: 219-221, 224.

Dennis McKiver is a member of the Noyo Chapter and an associate member of the Eureka Chapter.

Online Journal

Thanks to those ARS members that have accessed the online *JARS* Fall 2012 issue and have given us feedback as to how it worked for them. As expected, there were a few rough edges in the process, and as a result of feedback, we have done the following:

- 1) The embedded register verification link now appears as a clickable link in the email message. New registrants now just click the link to complete the verification process.
- 2) After completing registration, a member is able to: (a) view the online Journal or (b) access the searchable ARS membership roster. After successful registration, links are now provided to both of these options. The previous path to access the online Journal is thus now more obvious.
- 3) There is now a link in the “What’s new” section near the top of the OARS home page that brings up the registration/login page. This is an alternative approach to following the registration instructions published in the Fall 2012 *JARS*.

Remember that personal registration is a one-time occurrence. Subsequently, users can simply go to the OARS home page and click a link (insert link!!) to access the on-line Journal. We recognize that it may take some time for members to become familiar with this process and be comfortable to do so.

Forthcoming current online issues of *JARS* can be accessed every three months - on February 1 (winter issue), May 1 (spring issue), Aug 1 (summer issue), and Nov 1 (fall issue), and past online issues will be maintained on the web.

Please note that the photo images are not sharp in the full Journal pdf. The reason for this is that there is a tradeoff between image clarity and the time it takes to download the entire Journal to your computer. When image quality is improved download time increases. The Fall Journal has 113 pages and file size is about at the practical maximum limit. If higher resolution images were used the file size gets very big and users find the download time to be excessively long.

If you have not already done so, scroll through the full Journal pdf and find the links that allow high-resolution pdfs to be downloaded for three of the articles that have color photos. These pdfs have very sharp images compared to those found in the full Journal pdf. File size for the hi-res files is roughly the same as the full Journal file, and download times are similar. Links are provided in the hi-res downloads to return the reader to the full Journal.

Glen Jamieson, Editor

The Word: Dormant

Bruce Palmer
Cutten, California



Most of us are rather torpid at this time of year. So are our rhododendrons! A good word for the winter issue of *JARS* might thus be **DORMANT**. The word is from the Late Latin *dormire*, to sleep. Most of the plants in our yards, including our rhododendrons, are “asleep” this time of year; at a minimum they meet the botanical definition of dormant, alive but not growing.

Flowering plants have invaded a wider variety of climates than plants that evolved earlier in Earth’s history, such as ferns and conifers. One factor that has made this possible is that both growth and flower buds become dormant as the days shorten and the temperature drops and remain so until after the cold winter passes. This action is termed “predictive dormancy” because it happens in advance of actual adverse conditions. Consequential dormancy occurs when organisms enter a dormant phase after adverse conditions have arisen, and is commonly found in areas with an unpredictable climate.

As the period of daylight lengthens in the spring, the buds begin to grow again under the influence of plant growth hormones. The three factors together: temperature, day length and growth hormones, determine when and how well new buds develop into leaves, stems and flowers. Many temperate flowering plants actually require a period of cold and short day length to induce new growth and flowering. This requirement is called vernalization (Latin: *vernus*, of the spring), a term made popular by the Soviet agronomist Trofim Lysenko, who believed incorrectly like Lamarck before him, that induced responses to the environment could be inherited. Different plants have different winter dormancy reactions and vernalization requirements. We can’t grow peaches well near sea level here on the northern coast of California because the winters are not cold enough. This *JARS* issue’s word is expanded from one written three winters ago for our local chapter newsletter, which was prompted by a chapter member who observed that a lot of her rhododendrons were blooming in February when they should still have been dormant. Quite a few of our rhododendrons were also producing partial trusses then. A reasonable guess as to what was causing the bloom is that some dormant buds may have responded to an unusual, prolonged cold spell during the previous October. Typically, we do not get heavy frosts in our area until about January. After it warmed up again, some of the dormant buds may have responded to the October

vernalization signal and consequently bloomed in February instead of the usual April. A majority of buds appear to have gotten it right, though, and did not flower early, so we had plenty of trusses for our chapter's plant show in late April.

Dormancy is not always restricted to winter. In dry, warm areas some flowering plants go into dormancy in summer. I can never resist a discussion of Hawai'ian examples where they apply. The Hawai'ian endemic coral tree, the wiliwili (*Erythrina sandwichensis*), is a good example. The wiliwili grows on the arid leeward sides of the Hawai'ian islands in a habitat referred to as the dry forest. Much of this area has been decimated by grazing and by resort development, but where wiliwili survives it goes into dormancy and loses its leaves when the weather gets warmer and water is in short supply. As the rainy season approaches again, the wiliwili blooms and then produces new leaves. An interesting side issue is that of the more than one hundred species of *Erythrina*, wiliwili is the only one whose seeds do not float for distribution by water.

A great deal of study and experimentation on dormancy and vernalization has allowed the horticultural industry to produce plants for the trade at almost any time of year. Marijuana growers have become particularly adept in overcoming dormancy. With rhododendrons, azaleas sold by florists, typically the Kurume Azalea *Rhododendron obtusum* (see Cox (2005), p. 204 for a complete discussion of Kurume Azaleas and Wilson (1997), pp. 138 and 157 for an analysis of this name), are produced in completely enclosed buildings where light, day length and temperature can be strictly regulated. Rooted cuttings are kept in refrigerated conditions at about 40-49° F (4-9° C) for five weeks with a specific light level for 12 hours per day. After that, buds are induced by raising the temperature to 60° F (15° C) and lowering the light level slightly for an additional seven weeks. Often the plants are also sprayed with various growth regulators, and the whole process takes a bit more than a year to produce a plant for sale (Hartman et al. 1981, pp. 382-383).

In summary, one reason flowering plants have come to dominate the modern world is their ability to become dormant and even to depend on dormancy for survival. We now use and manipulate that adaptation to our great advantage in the production of desired plants all through the year. When you buy or receive an azalea plant for Valentines Day, you might take a minute to appreciate all the research and effort that went into its production.

References

- Cox, Kenneth. 2005. *Rhododendrons & Azaleas: A Colour Guide*. Ramsbury, Wiltshire: The Crowood Press. 240 pp. (p. 204 cited).
- Wilson, Karen, ed. 1997. *The Rhododendron Handbook*. London: The Royal Horticultural Society. 352 pp. (pp138, 157 cited).
- Hartman, Hudson T., Anton V. Kofranek, Vincent E. Rubatzky and William T. FLocker. 1981. *Plant Science: Growth, Development and Utilization of Cultivated Plants*. Englewood Cliffs, N.J.: Prentice-Hall. 674 pp. (pp 382-383 cited).

ARS Photo Contest Winners 2012

Best in Contest



Best in Contest: Marc Colombel, Fouesnant, France (Scottish): An inside of a rhododendron corolla, modified with CombineZM (it merged 20+ short depth-of-field images taken over a distance of about 2 cm (1")) and Photoshop. Macro lense at a magnification of x5.

1) Flower, truss or spray



Category Winner: Earl Sommerville, Marietta, GA (Non-chapter):
Native Azaleas open pollinated "MLM"



Category Runner-up: Sean Rafferty, Vancouver, BC (Fraser South): *R. 'Cinkeys'*, 1/200 sec. @ $f = 6.3$, Focal length: 141 mm, ISO = 2500.

2) Plant in bloom



Category Winner: Kristian Theqvist, Finland (Finland): *R. 'P.M.A. Tigerstedt'* aka 'Peter Tigerstedt'* in my arboretum, 1/40 sec @ f = 2.8, ISO = 80.



Category Runner-up: Elizabeth Georgian, Madison, WI (Connecticut): *R. neriiflorum* taken in Pianma, Liuku, Yunnan, China.

3) Landscape or plants in the wild (expanded to include garden)



Category Winner: Kristian Theqvist, Finland (Finland): Azaleas in my arboretum - 'Rosy Lights' X Fraseri Group , 'Golden Lights', 'Jack A. Sand', 'Kullannuppu', 'Aamurusko', *R. luteum* and *R. vaseyi*. Naturally growing *Pinus sylvestris*, *Juniperus communis* and *Picea abies*. 1/40 sec @ f = 4.0, ISO = 80.



Category Runner-up: Kristian Theqvist, Finland (Finland): Rhododendrons in Rhodogarden June 2011.

4) Foliage



Category Winner: Donna Keough, Snohomish, WA (Pilchuck): *R. quinquefolium* spring foliage.



Category Runner-up: Kristian Theqvist, Finland (Finland): *R. recurvoides* in my arboretum. Sheltered during winter as it is not fully hardy in zone 5b. 1/50 sec @ f = 3.5, ISO = 80.

5) People, Insects, or Animals



Category Winner: Marilyn Haynes, Hendersonville, NC (Southeastern): *R. catawbiense* and artist at Roan Mountain



Category Runner-up: Sherla Bertelmann, Keaau, HI (Hawai'i): Baby bird and egg in a nest in a vireya.

6) Other, for creative or artistic effects of any kind that involves these plants.

Category Winner: Marc Colombel, Fouesnant, France (Scottish): An inside of a rhododendron corolla, modified with CombineZM (it merged 20+ short depth-of-field images taken over a distance of about 2 cm (1")) and Photoshop. Macro lens at a magnification of x5. **See photo on page 31.**

Category Runner-up: Sherla Bertelmann, Keaau, HI (Hawai'i): A vireya ('Gardenia Odyssey'* X 'Bob's Crowning Glory') being registered as "Father Damien" that was grown from seed received from Graham Snell. The original background was manipulated by smudging and the flower petals cleaned up using Photoshop. **See photo on the right.**



How Does Your Garden Grow? How Do Your Trusses Show?

Bruce Feller
Old Field, New York



Arguably, the most popular and exciting event for many Society members—Exhibitors and spectators alike—is the Flower Show or Truss Shows staged by their local Chapters. After all, a display of cut trusses and sprays reflects our trials, failures and ultimate successes in the garden. Largely an exercise in aesthetic appreciation and education about these wonderful plants, there is also an element of competition that prompts tireless efforts to display perfect or near perfect examples of the genus *Rhododendron*.

In a survey conducted in 2006 (*JARS* Vol. 61, 1), all Society Chapters were contacted regarding Flower Show activity and it became abundantly clear that these events were high on the list of Chapter priorities. The survey also established the fact that Flower Show rules/guidelines varied from Chapter to Chapter and, further, that there was little enthusiasm to “homogenize” all of the many variations in the interest of a standard set of procedures for use throughout the Society.

Based on the popularity of these events and a desire to extend active participation to a broader audience, a workshop was conducted at the 2012 Convention in Asheville, NC, entitled “Flower Show Judging Workshop.” It was intended for those contemplating a future role as Flower Show judge, and exhibitors who wanted to learn what a judge looks for when awarding ribbons—largely the same basic knowledge being required for each role. Based on the response to this workshop, it was suggested that a brief Journal article be published addressing the subjects covered—selection, grooming and preparation of trusses and sprays, their presentation and other factors bearing on the evaluation of entries. Set forth below are highlights of that presentation.

Flower Show rules/regulations: The first step in the process involves familiarization with Flower Show rules/regulations published by the host Chapter. As indicated above, these vary from Chapter to Chapter and are typically committed to writing with detailed instructions for exhibitors and judges.

Truss/spray selection: That having been said, attention to truss/spray selection follows—often days before the Flower Show takes place. Many exhibitors move through their gardens in advance and make preliminary evaluations of which trusses and sprays may be at their peak of perfection on the Show date. They can eliminate poorly formed trusses or sprays, emerging flowers surrounded by damaged foliage and branch contours that will prevent the truss or spray from standing straight and tall in its display vessel—typically the most flattering posture. In extensive gardens it can be useful to ribbon tentative selections for easier identification and final evaluation a day or two before the Show. Some exhibitors give potential selections a “shake” at this early stage, and, if flowers fly out of the truss or spray, it is a clear indication that the specimen will be well past prime by the Show date.

Exhibitors should make preliminary selections from among elepidote trusses soon to be fully open, assuming that the grooming process and transportation to the Show location will be a few days in the offing. Final selection should be made from among those that are almost fully open, on a straight stem, surrounded by a symmetrical swirl of unblemished foliage—clearly an ambitious goal, but this is the standard to which you should aspire. If allowed, often the removal of a few leaves, even if not damaged, can improve the appearance and symmetry of the surrounding foliage.

The selection of azalea or lepidote sprays is somewhat more subjective. Determine if there are any size limitations for entries, and then look for an aesthetically pleasing spray with attractive structure and shape and an abundance of flowers near peak bloom. A few unopened flower buds often enhance appearance, but determine in advance whether Chapter rules penalize such entries. Damaged flowers and leaves can usually be removed from otherwise desirable sprays without penalty or diminished appearance.

Trusses and sprays should be cut in the early morning or evening and stems should be placed in cool water indoors, out of direct sun and at normal room temperature. Cut elepidote trusses will typically last longer and look better cut a day or two before a Show than those taken immediately before the event. In any case, stems should remain in cool water until placed in the display vessel at the Show.

Truss Grooming: Grooming is the next step in the preparation of your entry and it is recommended that Chapter Flower Show rules again be consulted before beginning. Some Chapters allow the removal of damaged plant parts, trimming of leaf margins, the use of leaf shine and other enhancements—but other Chapters clearly disallow these practices. Be sure you know the rules before you begin. Generally, grooming involves cleaning elepidote foliage with a slightly damp paper towel, removal of bud scales and other extraneous material from within the truss or spray, like fallen oak flowers and the occasional insect. Good lighting and long tweezers will greatly facilitate this process. Exhibitors often groom entries the evening before the Show to avoid a last minute rush.

Various methods have been devised to transport cut entries to a show location.

Most involve the use of a variety of carriers securely supporting water-filled vessels that are reasonably stable for vehicular transportation. Preparing a list of your entries or entry show tags in advance will always facilitate the benching of entries on Show Day, and will be appreciated by Show workers. Some sponsoring Chapters typically make these available in advance along with instructions for their completion.

As with anything in life, your success will improve with experience as you experiment with the methods best suited to your situation. I do NOT know of all the techniques or procedures that are available, and so this article only covers the basics of truss selection and grooming. I encourage participation in Flower Shows, both for the social elements involved and so that you may further enjoy the results reflecting your successful efforts in the garden.

So, let's get those trusses on the road this spring!

Bruce Feller is a member of the New York Chapter and is the Eastern Vice President of the ARS.

Join me on a
GARDEN TOUR
of a Lifetime

CRUISE HOLIDAYS

Cruise Holidays of Lawrence Park
3332 Yonge Street Toronto, Ontario M4N 2M4
416 486 4646 1 800 518 3435
info@lawrenceparkcruises.com
ONT. REG. # 50010881

May 14 to May 25, 2013
**TIME SENSITIVE
BOOK NOW**

Sail the British Isles on this 11 day cruise and attend the Chelsea Flower Show on its Centenary!!!

Visit Sissinghurst, Lost Gardens of Heligan, the Eden Project, La Seigneurie (Sark), Powerscourt Castle and Helen Dillon Garden (Ireland), Bailfour Castle (Orkneys) and more.

Hosted by Peter Neubauer - Past District 12 Director American Rhododendron Society - Member of the Royal Horticultural Society

Ocean View Cabin starting at \$4,245.00 US per person
Based on double occupancy
Other Categories Available

Includes all transfers, 2 pre or post cruise hotel stay in London with daily breakfast, taxes and fees; cocktail party; Speakers program; private tours in most parts of call, gardens and local sites; prepaid gratuities; entrance to Chelsea Flower Show; \$750.00 US per person deposit at booking

Call or email us; space is very limited and the Chelsea Flower Show sells very quickly.

Advantages of Public Choice Voting

Bob and Coleen George
Sammamish, Washington



At the Cascade Chapter Flower Shows we have instituted public choice voting. Each visitor to the show is asked if they care to vote for their favorite flowers. If so, they are given a ballot on which they can indicate as many flowers (and the exhibitor's number) as they wish, up to three in each category. We have done this for two years now at both our early shows and our regular shows.



Cascade Chapter Flower Show, 2012. Photo by the authors.

This has proved to generate more interest in rhodies among the public. Traditionally, when we had professional judges, people just walked through and looked at the ribbon winners and basically said, “Oh, how pretty”, and then went on their way. Now that they have the opportunity to select the winners, many take a ballot and actually stop and look at all the flowers, the different colors, shapes, leaves, sizes, etc., and seem truly interested. And they enjoy it!

The typical comment when they turn in their ballot is, “Thank you. That was fun!” We find that children are especially open to the challenge of voting. They really like to express their interest and choices, so we are planting seeds for future rhododendron growers.

We give ribbons to the exhibitors whose flowers receive the most votes. It is interesting to see the many different tastes of the audiences. Some people even ask where they can find the results, so we plan to put them on our website.

This technique has been so successful, that we thought it was worth sharing with other chapters.

Bob and Coleen George are members of the Cascade ARS Chapter.

The ARS Seed Exchange: Growing Rhododendrons from Seed

This will be my fourth year as chairman of the ARS Seed Exchange (SE), coordinating the receipt and distribution of the many varieties of seed donated to the seed exchange. The SE is a service offered to the ARS membership yearly since the early 1960s.

Norman Beaudry
Bethesda, Maryland



It has provided many of us the opportunity to obtain hybrid and species rhododendron, deciduous azalea and companion plant seed not easily available from most commercial garden sources. With this program, an opportunity exists to grow and test new plant varieties under varying geographical growing conditions.

Last year's seed offerings were received from nine countries and from a seed collection trip in China. From these donations, five thousand seed packages were prepared for distribution (Fig. 1). Each seed packet was filled with a sampling of approximately 50 to 100 seeds and are listed at \$3-\$4 per package. Sales of the seed packets generate revenue. With the approval of the SE advisory committee, this revenue can be used to develop and promote programs to initiate and further enhance a continuing interest in the genus rhododendron. This is accomplished by sponsoring seed collection trips and/or educational programs. For example, in September of 2011, the SE partially supported Jens Nielsen's explorations to the Chinese provinces of Yunnan, Gansu, Shaanxi, Henan and Chongqing, China, collecting seed which added 90 varieties of collected wild rhododendron and companion plant seeds to the 2012 catalog.

The on line version of the catalog of available rhododendron seed is available each year after January 1st. To view the listing, go to the ARS web page:

<http://www.rhododendron.org/seedexchange.htm>

or view the Danish version at:

www.rhododendron.dk/seed-2013.htm

The Danish web page also has copies of old seed exchange catalog listings back through 1974. For users without internet access, a hard copy of the current seed list is available by request from the seed exchange office.



Fig. 1 . Seed packets.

Purpose

Most of the seed donated to the exchange comes from collectors/hybridizers willing to make their extra seed available for you to grow. These donations are of sometimes difficult to obtain species and hybrids and are made available at a reasonable cost. For most hybridizers, a cross is made with specific goals in mind. They may differ, but are usually made seeking improvements over one or both of their parents.

As an amateur hobbyist, I have been attempting crosses since 1982. Presently one of my goals is that of improving a hardy red hybrid in our Bethesda, Maryland, garden. The hybrid is a cross of *R. maximum* × 'Leo' and was registered by Ray and Jane Goodrich of Vienna, Virginia, as 'Doctor Denis Percell' (Fig. 2). In our area of the Middle Atlantic US coast, zone 6B, this plant has proven to be reliably cold hardy (-15° F; -26° C) and tolerates our hot humid summers that can reach (+95° F; +35° C) during July and August. I have been using it as a parent because it has been a more reliable

hardy red than our red *R. maximum* species 'Mount Mitchell'. 'Doctor Denis Percell' is a large plant and it is a bit open and leggy, so my goal here has been to improve these characteristics. I have made several crosses using pollen from more compact (although less hardy) red hybrids including *R. strigillosum*, and two dwarf reds, Dover Nursery's 'Patriot's Dream'* ('Carmen' × *R. degronianum* ssp. *yakushmanum*) and 'Yummy Yak'* (a Dover Nursery compact, red budded, unknown *R. degronianum* ssp. *yakushmanum* introduction). Last year, I used a clear red pollen donor from a 1994 Bob Furman hybrid 'Hey There'* (Figure 3). It is a cross of [(Tally Ho Group × *R. degronianum* ssp. *yakushmanum*) × (*R. degronianum* ssp. *yakushmanum* × 'Noyo Chief')] × 'Jean Marie de Montague').

'Hey There'* is a compact grower with a clear red flower. With these crosses, I am hoping to obtain offspring that will be hardy in Maryland and for the eastern USA in general, compact, and with a superior flower, but then again they could all be failures.



Fig. 2. 'Doctor Denis Percell' (*R. maximum* × 'Leo')



Fig. 3. 'Hey There*'

Only time will tell. To find out, I have sowed about two hundred seed and after a wait of five plus years, maybe one of the seedling plants will be a keeper. This may not be an old man's hobby.

Growing seedlings can also lead to interesting plant variations. From a lot of seed



Fig. 4. Seedlings.



Fig. 5. 'Helen Vieira'



Fig. 6. A sport of 'Helen Vieira'.

that was donated to the exchange in 2010 by Jim Barlup of Bellevue, WA, a complex cross of ([('September Song' × [('Bambi' × R. proteoides #16) × Giggles A5*] × 'Christina Dee*').

I sowed 100 seeds. The seed lot had a large variation in seedling characteristics (Figure 4). Unfortunately, many of these seedlings were lost when Hurricane Irene passed through Maryland. In May 2012, our plant of 'Helen Vieira' bloomed for the first time (Figure 5). As a bonus, one branch of the plant bloomed several double flowers (Figure 6).

Pollen

Pollen can be obtained from numerous sources, such as a flower from your garden, a colleague, an arboretum or from the wild. Rare species pollen can be purchased from the Rhododendron Species Botanical Garden in Federal Way, Washington, USA².

Collect the pollen containing anthers with a tweezer and place them into large #11 gelatin capsules. These capsules are then immersed and stored in a container of desiccant such as dried powdered milk or a commercial calcium sulfate product, Drierite[®] that can be purchased with a blue dye indicator. The collected anthers should be stored in a household refrigerator for three days, and then transferred to a freezer (<-32° F; <0° C) for permanent long-term storage. The gelatin capsules I use are quite large, but

this size makes it easy for me to shake the pollen free from the anthers. Pollen stored in this manner appears to be viable for at least four years.

Making a Cross

For anyone wishing to contribute hybrid seed to the exchange, the process is relatively easy. My method is to first emasculate the flower by removing the petals and male parts of the flower. This is best done when the flower is almost ready to open. If the flower has opened, there is a chance that a bee pollinator may have contaminated it before you make your cross. It is important the female stigma flower part be receptive, i.e., “slightly wet” looking, before applying pollen. If the stigma is not “wet,” it may be necessary to cover it with aluminum foil or a plastic bag and wait for a day or so until the stigma becomes “wet” and receptive [or use the honey approach described on p. 40]. I now warm my gelatin pollen capsule to room temperature and shake it hard to free pollen from the anthers. The pollen will either lie free in the capsule, be clumped or it may stick to the capsule wall. You can transfer pollen from the capsule to the stigma by using a toothpick, tweezers, a cardboard matchstick, or a sable brush. Apply pollen generously to the stigma. I sometimes just rub the pollen-coated capsule wall to the stigma part of the pistil realizing, of course, that there is a possibility of contamination if the capsule was used this way for another cross. You can now cover the pistil to avoid a slight chance of contamination, and wait about four months until the female ovary flower part has swollen and started to turn from green to brown. At this time, and hopefully just before the capsules start to crack open, the seed capsules should be removed and placed inside an open container in a warm dry location for a couple of weeks. Seed should then be ready for cleaning, sowing and or packaging.

Seed Germination

There are endless methods and theories for the germination of rhododendron seed. My method may differ from others, but has worked well for me. As I am sometimes away from my home for several days at a time, I germinate my seeds in closed clear plastic sealed containers. These containers are usually purchased by me from the local Dollar store, and are first soaked in a 10% Clorox solution (one part of household Clorox solution plus nine parts of water), then rinsed and dried. For a germination soil media, I use screened sphagnum peat moss (Pro-Mix[®]) plus enough Perlite[®] to make an approximate 50:50 mixture. Boiling water is poured over this mixture for semi-sterilization and to improve water absorption into the peat. Once the mixture has cooled, I squeeze out as much water as I can by hand, and this consistency is about right for seed germination. Before sowing the seed, it is advisable to screen a dusting of milled sphagnum over the soil mixture or alternately use a fungicide (e.g., Captan[®]) to reduce the possible formation of any fungal growth. Once the seed is applied to the media, the media and seed is spritzed lightly with water. Do not cover the seed with

soil. In approximately two to three weeks, you should see evidence of germination. I transplant my seedlings after each growth spurt to improve growth and reduce inherent disease problems.

I sow one hundred to two hundred hybrid seed and a smaller number of species seed, keeping only about 15% of the crop. Only seedlings possessing the best root system, color and compactness are saved.

Conclusion

During the early 1970s, we started with one lavender rhododendron, I believe a 'Roseum Elegans' hybrid, growing in a small townhouse lot, and this led to our joining the ARS in search of a red flowered rhododendron that we saw growing in our neighborhood. Two moves later, and after many, mistakes, this led to a three acre (1.2 ha) lot and a collection of over five hundred varying hybrids. We all have varying interests, either collecting only evergreen azaleas, deciduous azalea, or species rhododendrons adaptable to a particular climate. Sources for all these choices can be at your local nursery, by mail order catalog, from rooted or grafted cuttings or even micro-propagation via the tissue culture route. Why not consider utilizing seed? Now might be a good time to investigate the ARS Seed Exchange and try your hand at growing from seed.

Notes:

¹ Donors to the seed exchange are eligible for a \$50 credit for RSF pollen purchases.

² Current ARS Members of the Seed Exchange Committee: Chairman Norman Beaudry, Don Hyatt, John Weagle, Jens Birck, Hans Eiberg, Bill Stipe, June Sinclair, Werner Brack and Bud Gehrich. NA Webmaster: Bob Weissman. Danish Chapter Webmaster: Hans Eiberg.

Van Veen Nursery

Specializing in Rhododendrons and Azaleas since 1926



Van Veen Nursery
P.O. Box 86424
4201 SE Franklin Street
Portland, Oregon 97286-0424
503-777-1734 or 1-800-RHODIES
Email: vanveennursery@hotmail.com

Custom Propagating: Yes we can!
Send us your cuttings (any amount) and
we will send them back to you with roots!

Contact us for details and for our free price
list featuring many heirloom and unusual
plants. Choose from over 500 varieties!

See us at www.rhododendron.org or
www.vanveennursery.com

SOCIETYNEWS

Awards

ARS DISTRICT 1

Garth Wedemire: District Award of Exceptional Contribution

The ARS Chapters of District 1 take great pleasure in presenting the District Award of Exceptional Contribution to Garth Wedemire for your many contributions to the District over three decades.

Your previously awarded medals and accolades speak to your expertise in many fields such as propagation, judging and computer software that has been significant at the District level. As our webmaster you greatly facilitate communication within the District Chapters. You are a talented, enthusiastic speaker who has given countless memorable presentations over the years. In doing so, you provide encouragement in your quiet caring way to our members. Your love of photography that you share with others is inspirational. Thank you for sharing your passion and your active ongoing support of District One activities.

MIDWEST CHAPTER

Laura Grant: Certificate of Appreciation

The Midwest Chapter of the American Rhododendron Society wishes to recognize Laura Grant, Executive Director of the American Rhododendron Society, for her contributions to and unwavering support of the Midwest Chapter in its efforts to "encourage interest in and to disseminate information about the genus *Rhododendron*." Laura has an expansive and detailed knowledge of the current and past history of our Society and its members and has gone above and beyond the call of duty to answer our requests for assistance on repeated occasions. In 2011 when our Board could not identify a set of By-Laws for our Chapter, she quickly identified a copy in the Society archives. Repeated requests for information about membership qualifications and recruiting have helped the Chapter grow to its current 75 members. We could not have increased to this level without her knowledge and timely support.

With membership in garden organizations declining, including our own Rhododendron Society, her help and leadership have been an inspiration and a key to our growth.

The need for timely shipment of Society literature has been met with a quick response and a trip through customs to Buffalo for rapid and convenient mailing. The meetings Laura orchestrated at the annual convention were informative and well planned which further aided in the ability of our Chapter to serve our members in an effective manner. No request has gone unfulfilled, or completed without a friendly response. Working with Laura has been a joy and we wish to thank Laura for her attendance at this our 50th year celebration.



Mary Parker (District 1 Director), Garth Wedemire and Ken Webb (District 1 Alternate Director). Photo by Sue Lightburn.



Laura Grant was awarded the Midwest Chapter's Certificate of Appreciation on Sept. 8 at the Midwest Chapter's 50th Anniversary Dinner in LaGrange, Illinois. The Award was presented by Ted Nyquist, Midwest Chapter President.

ARS Board of Directors Meeting, Sept. 21, 2012

We had a great meeting in Nanaimo! The attached meeting minutes cannot capture the lively discussions, humor, or camaraderie at the September 21, 2012, American Rhododendron Society Board meeting. The Board accomplished a lot during the meeting as summarized by the list of Motions, Assignments, and potential future topic list below. One of the key highlights was approving the new Finnish Chapter. We can celebrate our progress, dedication, and teamwork! Interested in more meeting details? If so please check the ARS website where they are posted in full detail!

MOTIONS: (all votes were unanimous unless noted):

- Accept the Finnish Chapter as a new ARS Chapter.
- Approve budget as presented (with reductions and increases).
- Do not offer copies of Journals older than 2000 for sale through the Executive Director office any longer (because they are available online for FREE!). Older journals should be recycled to avoid continuing storage costs or charges.
- Accept Bylaws Article VI, Section D revision
- Accept the nomination for the Eastern Vice President (Ann Mangels).
- Exempt the Secretary/Treasurer positions as described in the ARS BYLAWS (Article IX Section C) and approve the nominations for Secretary and Treasurer.
- Drop Policies of the Board (POB) 4.6.6 and 4.6.7.
- Form ad hoc committee to research Electronic Affiliate proposal.

ASSIGNMENTS:

- Nick Yarmoshuk volunteered to send a digital slide show that outlines the steps for hybridizing to Glen Jamieson. Glen asked Nick to write an article about it as well.
- Laura Grant will contact Marc Columbel to ask if there are educational materials he would be willing to put on our website.
- Educational products (1) Fred Whitney will contact Washington State University regarding the extension service publication. (2) District Directors were asked to look and see what they may have.
- Laura Grant will talk more with Fred Whitney regarding the Policies of the Board and then work with the Finnish Chapter to incorporate the standard wording about Chapter dissolution within the Chapter By-Laws.
- Dave Collier to research fund account code for Board travel.
- Laura Grant to look at cost and local availability of commercial records storage sites.
- Not assigned—Follow-up on changes to the membership form regarding optional “Electronic Journal Only” delivery. This was based on a decision after we see the usage of the eJARS.
- Fred Whitney and Budget committee to revisit the proposed budget policy changes (specifically 9.3.4 suggestion) for the next meeting.
- Don Smart to look into POB 9.3.1.
- Laura Grant to contact Sponsoring members re: thank you gifts.
- Kath Collier (and others) to research online store options.
- All – support the ARS blog!
- Glen Jamieson, Bruce Feller, and Paul Anderson to research the idea of an electronic affiliate membership class for members of other related societies.



SOCIETYNEWS

FUTURE POTENTIAL TOPICS (FPT):

- Student Membership criteria.
- Electronic Meetings ad hoc committee progress.
- Rhododendron Database next steps.
- Summer Intern Oral History Project.
- Developing hybridizing, educational displays or programs.
- Educational product development, including new DVDs.
- Improving communication both inside and outside of the Internet.
- Accountant recruitment.
- 75th year celebration and future conventions.
- Monies for printing brochures.
- Budget trends and updates, income, and POB proposal.
- Record storage and retention.
- Test and Display Garden program.
- POB 9.3.1, 2.3, and Bylaw changes for Student Memberships vote.
- Online store.
- Advertising on the website for non-members.
- Fund Raising Committee needs and opportunities.
- Donations, membership ideas and actions.
- Long range investment committee updates.
- Membership dues changes.
- Blog support.
- Selections for the 2013 Rhododendron of the Year program.
- Gardens to visit.
- "Save the azalea program" update.
- Photo contest 2013.

Kath Collier
ARS Secretary

Chapter/District/Special Donations 8/20/2012 – 11/26/2012

Donor	Amount	Source
<u>General Fund</u>		
Mason Dixon Chapter	\$50.00	Chapter donation
<u>Endowment Fund</u>		
Middle Atlantic Chapter	\$100.00	In memory of Jane McKay
Middle Atlantic Chapter	\$100.00	In memory of John Smith
Valley Forge Chapter	\$1,063.00	Annual chapter donation
Princeton Chapter	\$100.00	Chapter donation
Greater Philadelphia	\$200.00	Chapter donation
<u>Research Foundation</u>		
Middle Atlantic Chapter	\$250.00	Research Foundation support
Valley Forge Chapter	\$500.00	Annual contribution
Valley Forge Chapter	\$859.00	Proceeds from District 8 auction

In Memoriam

Patricia Brack

The NY Chapter lost a great friend and loyal member when Patricia Brack passed away on November 2, 2012. As a young girl she lived through the Second World War in England. Her sister Phillipa still resides there but Patricia "crossed the pond" in 1956. She taught school in New York and married Werner two years later. She is also survived by her two daughters, Elizabeth and Pippa and two grandsons.

Patricia earned the Bronze Medal of the ARS for her valued work in the New York Chapter. She served on the Board of Directors of the Chapter and as Treasurer. Patricia was always available for duty at the plant sales handling the moneys that came in and keeping meticulous records for the chapter. At the flower shows she was early on the job helping to place entries and clerking for the judges. For many years she selected and bought the prizes that were awarded to those who were fortunate enough to win "bests." She also served on the Honors Committee.

Patricia and Werner traveled through much of the U.S. and beyond to the many ARS conventions they attended. Patricia worked with Werner tirelessly in their beautiful rhododendron garden in St. James on Long Island. Their garden was always open to visitors and garden tours and Patricia would host those who came to visit and make them feel welcome, always quietly, unassuming—no self-praise here!

Patricia loved her corner of the world; we loved her and will miss her.

Jim Fry

E-mail Address for Plant Name Registrar

If you wish to contact our new Plant Name Registrar, Michael Mills, please use the e-mail address he has set up specifically for the Register:

arsregistrar@gmail.com

Michael is replacing Jay Murray as the North American Plant Name Registrar. In this winter issue there is no Plant Name Register, but beginning with the Spring 2013 issue Michael will be submitting a Register for newly registered names.

Rhododendron Calendar

- 2013** International Rhododendron Species Conservation Conference, Royal Botanic Garden, Edinburgh. April 20–21.
- 2013** ARS Annual Convention, SeaTac, WA/Tacoma, WA area. May 1–5. Board meeting.
- 2013** ARS Western Regional Conference, Newport, OR. Sept. 27–29.
- 2013** ARS Eastern Regional Conference, RSC Atlantic Region. Oct. 4–6, Dartmouth, NS Canada. Board meeting.
- 2014** ARS Annual Convention, Cleveland, OH, May 16–18. Board Meeting.
- 2014** ARS Western Regional Conference, District 2, Everett, WA. Sept. 26–28.
- 2014** New Zealand Rhododendron Association International Conference, Dunedin, NZ, Oct. 20–25.
- 2015** ARS 70th anniversary, open.

SOCIETYNEWS

Letters to the Editor

EDITOR:

The Fall 2012 issue of the Journal American Rhododendron Society contains an unfortunate error that can be traced to the power of the Internet to spread misinformation. The statement "Last year the US National Arboretum was going to destroy the Azalea collection" on P. 181 is false. The plan of the Arboretum was to destroy part of the azalea collection. The erroneous verbiage was posted in e-mails from someone who perhaps knew better but was—as is all too common in e-mail communication—imprecise in expressing his concerns. The error was repeated by others, and it is not surprising that it should appear in our journal.

The documented collections—some 4,000 azaleas—in the Morrison Garden, Lee Garden, and the Hybrid and Color groupings were not threatened. The plants in question are those on the south hillside of Mt. Hamilton. That planting, which dates back to 1946-47, originally comprised some 12,000 or more azaleas from the hybridization program of B. Y. Morrison. With the passage of time, labels were lost, and only a few of the plants can now be identified. Although the hillside plants have great historical significance and make an important contribution to the azalea display in the spring, their "undocumented" status led some at the Arboretum to recommend their removal. Fortunately, the plants are still there! A "renovation" program is now in progress. A major assault on English ivy in the area is underway. After six decades, many of the azaleas are in poor condition. Before next summer, all of the azaleas on the south hillside will be drastically pruned to encourage new growth.

Don Voss
Vienna, Virginia

EDITOR:



You might say that a girl my age (11) should be thinking about something else besides looking forward to going to a rhododendron meeting. But I like to socialize a lot in my spare time. I tell everyone that I came here with my Dad Keith White to make sure that he doesn't get into trouble, which is true. The best thing about rhododendrons is that they get my Dad to take me to new places.

I like rhododendrons because in Oregon when it's nice and fresh you can smell the fragrance and see the luscious pink flowers in bloom. Another thing I like is that rhodos are easy to plant because you just need to plant them on top of the ground and you're good. I also like rhododendrons because of the gardens and how they're put together to look so pretty.

One of my favorite gardens is the Biltmore Estate. Not only beautiful rhododendrons are there but also roses, ferns, trees, and outstanding landscaping. The Biltmore Estate is located in Asheville, North Carolina.

I'm looking forward to the fall meeting in Newport, Oregon, because I live about two hours from there so it won't be a long drive. The hotel where we are staying at is on the beach and you can just walk right onto the beach. I've stayed in this hotel before. They have warm beds and a arcade. I also love Newport because they have my favorite restaurant . . . Mo's, Ripely's Believe It or Not Museum, and kite shops. I also love Lincoln City because my favorite camp is Drift Creek Camp (D.C.C.).

I enjoy all the fun places that the A.R.S. have their meetings. So keep up the good work!!!

Erin White
Salem, Oregon

Editor's Note: I have talked with Erin at a number of ARS conferences now, and each time was a pleasure. She attended the recent Western Regional Conference in Nanaimo, BC, and there I asked her if she could please write a few words about why she attended these meetings and what she enjoyed most about them. Her letter here is her reply! I encourage other members to bring their children or grandchildren to such meetings, as it may stimulate a life-long gardening interest in them as well. If you see Erin at a conference, please say hello to her, as she is charming to talk to and very friendly!

The Honey Trick: A Technique for Overcoming Reluctant Pollination in Rhododendrons



Betty Ann Addison
Minneapolis,
Minnesota

Photo by the author

Daylilies, my first breeding subject, are easy to pollinate. Sticky threads of pollen ooze out of the anthers abundantly, and can be liberally daubed on glossy, receptive stigmas. Since the complete flower exists only one day, all conditions are ready for fertilizing at one time. One only has to remember to work early in the day, so that the pollen has time to grow down the pistil to its goal of the ovary, in order to make seed in a few weeks.

It is my observation that rhododendron pollination is much more complex. I presume it is because flowers last several days and the sexual parts come of age at different times. For instance, the stigma may be pollinated even before the petals are open, and

ARS SEED EXCHANGE

After January 1, 2013, the seedlist, ordering information and online ordering form can be viewed at the ARS website (www.rhododendron.org/seedexchange.htm). European members may also view this list at www.rhododendron.dk/ARS_seed.html. Seed sales are open to ARS members and seed donors at this time and to non-members after March 15th. Donor orders will be filled first.

The price of seed remains at \$3.00 per packet and \$4.00 per packet for seed collected in China.

A \$3. (US) and \$4. (outside US) shipping and handling fee will be added to each order. Seed Exchange users from outside the US are encouraged to pay by credit card (PayPal) or by postal money order.

Norman Beaudry, Chairman
ARS Seed Exchange



Hand pollinated seed development after two weeks on the right. Bee pollinated on the left.

may still be receptive days later. Even so, it may not ever be sticky. Anthers seem to release pollen over days, some early, some late, beginning later than the stigma is receptive. Perhaps this lag gives time for cross-pollination from another individual early on, but if no pollen is forthcoming from another source, stigmas will accept self-pollination and seed may still be produced.

In my experience, species and some hybrids make good pollen and/or seed parents. Many hybrids do not make or release pollen from their anthers easily, or accept pollen on their stigmas. *Elepidotes*, the large-leaf rhododendrons with which I am working, are usually compatible with each other and can make seed if they can be pollinated. It is the mechanical problem of not being able to extract pollen that has frustrated me. This May, I was able to make only limited successful crosses because some of the little “pepper shaker” anthers would not give up their tightly held pollen. Mashing them between my thumbnails and applying the pieces to the pistils, as I had done in the past, did create a few seeds if the pollen could be made to adhere. In contrast, the good pollinators, like *R.* ‘Purple Passion’, drip sticky pollen and usually make plentiful seed, even from year-old pollen! Weather conditions strongly affect pollen release and pistil receptivity, as well as the genetics of the parents.

In late June, a *R. maximum* growing by my back door, was covered in huge pine cone-like buds with a few opening delicate pink. Hardy to -40° F and C, I grew it from ARS seed collected on Mount Mitchell in North Carolina. Luckily, an out-of-season truss of ‘America’ was just opening as well. Its glowing ruby flowers and compact size would be valuable traits to add to *R. maximum* to create a late blooming, super-

hardy rhododendron. Last year 'America' neither gave up nor accepted pollen, so I anticipated pollination with it was going to be difficult.

I was sure there were pollen grains inside the anthers of 'America', but they were too tightly held to emerge. I felt that there must be a more positive, foolproof way to affect pollination. Turning to books, David Leach did say that if pollen is sparse, the anthers can be pulverized, but that would not account for the difficulty of adherence of pollen to a non-sticky stigma surface. What was needed was an adhesive! That is when I thought of using honey as an adhesive since it is a natural antiseptic as well as being sticky. I gathered a flower of 'America', laid it on a little plate, cut off the anthers with a razor blade and chopped them up like a miniature pesto. Mixing in just enough honey to make an amalgam, with a little honey on the side of the plate for insurance, the mixture was applied with a tiny brush to all of the pistils of three trusses of *R. maximum* on three consecutive days. Within a day or two, the petals collapsed and the tips of the stigmas turned dark. It appeared something was happening and in only two weeks, the ovaries were definitely swelling. Meanwhile, the adjacent trusses had kept on blooming with firm petals for another week despite vigorous bumblebee activity on them. They eventually did make some self pollinated seed but it was not as plentiful as was my hand-pollinated seed.

I now look forward to growing both kinds of the resulting seed under lights, with planting in November (Addison 2011). By January, seedlings will begin to show their



We are a Tour Operator based in the foothills of the Himalayas in Kalimpong, India, specializing in conducting botanical tours in Darjeeling and Sikkim which is home for a large variety of plant life. With the guidance of the best plantsmen here, we organize Orchid, Rhododendron and General Plant Tours in areas which have been preserved now in its natural state. We also organize slide shows and talks so that you get the opportunity to interact with the local plantsmen and discuss your discovery and fascination of plants.

Please write to us for any queries.

Phone: +91 9933518292
+91 9832362073

Email: naturehimalaya@yahoo.com

website: www.naturehimalayas.com

character. Those that possess reddish leaves will be particularly noted, for if there is plentiful anthocyanin in the leaves, there is a better chance of red flowers, which is one of my goals. Compact, branchy growth, can be observed in even a half-inch seedling and is another goal. Most importantly, early germination with a fibrous root system is a strong indicator of that “lust for life” that a hardy plant needs to have to seek out food and water. Growing the bee-pollinated seed along with my honey-pollinated seed will give me an experimental control to help evaluate the merits of this pollinating technique. *R. maximum* seedlings normally have large leaves and a rather coarse habit, so hybrids should be identifiable. Of course it will be a few years of growing on outdoors before the possible hybrids bloom, but their forms will be more fully evident in only a year. Time will tell if the honey trick works, but in the meantime I will be trying this technique next spring on many more “reluctant pollinators” to see if they can be persuaded to set seed.

Reference

Addison, B.A. 2011. Growing rhododendrons for cold climates from seed. *J. American Rhododendron Soc.* 65: 143-145.

Betty Ann Addison is a member of the Midwest Chapter and co-owner of the Gardens of Rice Creek in Minneapolis, Minnesota.



THE RHODODENDRON, CAMELLIA AND MAGNOLIA GROUP

www.rhodogroup-rhs.org

Become an International Member of the Rhododendron, Camellia and Magnolia Group of the Royal Horticultural Society and join others inspired by the love of these three plant genera.

- Benefit from publications keeping abreast of developments and discoveries across the globe while providing new insights into the past.
- Share in the wealth of seed offered in the annual Seed List – much of it wild collected.
- Take up the opportunity of joining tours in the United Kingdom and abroad.

The Annual Subscription of **£25 (US\$37 approx)** includes the Yearbook – *Rhododendrons, Camellias and Magnolias*, the Bulletin (three times a year) and the Seed List.

Download an application form from www.rhodogroup-rhs.org or contact: Rupert Eley, Highlands House, East Bergholt, Suffolk CO7 6UP, UK. email: sales@placeforplants.co.uk

Rhododendron of the Year Awards, 2013

Northeastern Region



'Golfer'. Photo by H. Greer.



'April Snow'. Photo by H. Greer.



R. calendulaceum. Photo by H. Greer.



'Martha Hitchcock'. Photo by P. Littlefield.

Ray Smith
ARS Plant Awards Committee Chair
Glenwood, Maryland

The ARS Plant Awards Committee has selected the Rhododendron of the Year awards for 2013. Because of climate differences, the committee selects plants for seven regions: an elpidote, a lepidote, a deciduous azalea and an evergreen azalea. The Vireya/Swisher Award is given to a vireya rhododendron.

The first criterion is that the plant performs well in the region, even for a novice. The plant has to exhibit good form, foliage and flowers, to prove itself cold and heat hardy for the region, and to show resistance to pests and diseases.

Mid Atlantic Region



'Taurus'. Photo by D. Irish-Hosler.



R. mucronulatum 'Cornell Pink'. Photo by H. Greer.



R. schlippenbachii. Photo by H. Greer.



'Rose Greeley'. Photo by H. Greer.

In addition, the plant must be available in the nursery trade and the name registered by the International Cultivar Registration Authority.

NORTHEASTERN REGION

'Golfer': Elepidote Rhododendron (*R. yakushimanum* (s) × *R. pseudochrysanthum*). A dwarf and spreading plant, growing wider than tall, reaching about two feet in ten years; has excellent foliage with silvery tomentum that is much more persistent and showy than most other yaks, as well as heavy yellowish-white indumentum on the under surface; the rose pink buds open in early midseason as wavy-lobed, clear pink flowers that fade to white, held in dome-shaped trusses of 13; likes mid-afternoon filtered shade; hardy to -10°F; a Warren Berg hybrid, named to honor his wife, Pat, and

Southeastern Region



'Haag's Choice'. Photo by Boris Bauer.



'Southland'. Photo by Don Hyatt.



R. vaseyi. Photo by M. Taylor.



'Nancy of Robinhill'. Photo by E. Stubbs.

her love for golf; a beautiful plant in any season.

'April Snow': Lepidote Rhododendron [(A double flowered selection from PJM Group × pink *R. mucronulatum*) × white *R. dauricum* (s) × *R. minus* Carolinianum Group × PJM Group]. An early flowering plant with fully double, pure white open funnel-shaped blossoms with pointed tips, held in ball-shaped trusses of 12; the dense upright grower makes a wonderful foundation plant, growing 3-4' in ten years, maturing to 6'; the Ed Mezitt/Weston Nurseries hybrid is hardy to -20°F.

***Rhododendron calendulaceum*:** Deciduous Azalea. One of the most spectacular native shrubs of the Appalachian Mountains, described by William Bartram in his book *Travels* as "certainly the most gay and brilliant flowering shrub yet known"; often called the flame azalea, it ranges from southern New York southward through the Appalachians to north Georgia, growing in open oak woods, on mountainsides and slopes, and

Great Lakes Region



'Phyllis Korn'. Photo courtesy of S.&J. Perkins.



'Molly Fordham'. Photo by H. Greer.



R. vaseyi. Photo by M. Taylor.



'Elsie Lee'. Photo by D. Hyatt.

along the stream banks; in late May and June, entire hillsides are covered with brilliant color, leading Bartram to say “we are alarmed with the apprehension of the hill being set on fire”; larger than most natives, the funnel shaped flowers, 1½-2½” across, occur in a wide range of colors from light lemon yellow through deeper yellow, to gold and orange, and orange-red to rich scarlet red, some with broad contrasting blotches; the long-lasting clusters of blossoms appear at the ends of the branches as the leaves are unfurling and are particularly attractive to ruby-throated hummingbirds; a naturally occurring tetraploid that does not hybridize easily with most of the other natives; difficult to propagate from cuttings, but very easy from seed; a well-branched, upright and spreading shrub or small tree growing to 6’ in ten years, occasionally reaching as high as 15’, and hardy to -20°F; French botanist Andre Michaux gets the credit for first describing *R. calendulaceum* in 1795; many years earlier, though, John Bartram and his

South Central Region



'Breezy'. Photo courtesy of *Southern Living*.



'Dora Amateis'. Photo by D. McKiver.



'Golden Flare'. Photo by H. Greer.



'Jeremiah'. Photo by H. Greer.

son, William, found them and sent specimens back to England; even earlier, in 1749, Cadwallader Colden mentioned finding them in southern New York.

'Martha Hitchcock': Evergreen Azalea (*R. mucronatum* × 'Shinnyo-no-tsuki'). Midseason 3" white flowers edged strong purplish red; younger plants or shoots may produce variant flowers, often purplish-pink solids; hairy, dark dull green leaves on a plant with a broad and spreading habit, growing to 4' in ten years; hardy to -15°F; a Ben Morrison/Glenn Dale hybrid introduced in 1948; Award of Merit in 1972 and First Class Certificate in 1976 from the Royal Horticultural Society.

MID ATLANTIC REGION

'Taurus': Elepidote Rhododendron ("The Honourable Jean Marie de Montague" × *R. strigillosum*). A large plant with impressive displays of ball-shaped trusses of 16 dark red, 3½", bell-shaped flowers with black spotting on the upper petal; blooms

Northwestern Region



'Wind Song'. Photo by H. Greer.



'Razorbill'. Photo by H. Greer.



'White Lights'. Photo by H. Greer.



'Purple Splendor'. Photo by B. Claggett.

early midseason; the large deep green leaves are held for three years, giving the plant a truly full appearance; adorned with prominent and showy deep red buds in winter; a vigorous plant, upright and spreading, growing to 6' in ten years; does best if protected from afternoon sun; hardy to -5°F ; a hybrid by Dr. Frank Mossman, Vancouver, Washington.

***Rhododendron mucronulatum* 'Cornell Pink'**: Lepidote Rhododendron. Probably the earliest rhododendron to bloom, putting on a great show along with the forsythia and daffodils, covering itself with clear pink flowers with faint orange spots well before the leaves emerge; native to Siberia, Mongolia, China, Korea and Japan, the species *mucronulatum* is often called the Korean rhododendron; can be a victim of late spring frosts if not carefully sited in an area to avoid the early spring sun; some shade or a location on the north side of a house to keep it cool will delay the bloom a bit and help avoid damaging the buds; a tall, open-growing, multi-branched shrub with graceful

Southwestern Region



'Rubicon'. Photo by D. Jones.



'John Paul Evans'. Photo by D. Jones.



'Homebush'. Photo by D. Hyatt.



'Cameo'. D. McKiver.

gray branches and stems and an upright and rounded habit; may reach as high as 15' at maturity; one of the first plants to bloom and one of the last to lose its leaves, the colorful autumn foliage in shades of oranges, yellows, and reds lasting late into the fall, finally dropping around Thanksgiving or perhaps even later; a tough plant, easy to grow and hardy to at least -20°F; one of the few deciduous lepidotes and often misclassified as a deciduous azalea; a Dr. Henry T. Skinner selection from the species *mucronulatum* in the 1950s.

Rhododendron schlippenbachii: Deciduous Azalea. One of the most common shrubs in Korea, often called the Royal Azalea; the natural range extends from Korea into nearby parts of Manchuria and Russia; the dominant undergrowth plant in many parts of Korea often turning vast areas into waves of pink in the spring; named for a Russian naval officer, Baron A. von Schlippenbach, who introduced the plant to the west in 1854; early midseason bloomer, with the funnel-shaped flowers opening to cover the

plant as the leaves emerge; large fragrant flowers held in clusters of 3-6 in colors ranging from white to pale pink to rose-pink, with reddish spots on the upper lobes; does its best in light to open shade, protected from the afternoon summer sun, too much of which may cause the leaves to become sunburned; a highlight in the autumn garden with its dark green leaves turning a mix of yellow, orange, and red; a slow growing, upright and spreading plant, reaching 5' to 7' tall in ten years; the multi-stemmed branching results in a rounded plant at maturity, when the height can reach as much as 15'; hardy to -25°F and does better in less acidic soils than most azaleas; the widely available selection 'Sid's Royal Pink' has deeper pink flowers with a more compact growth form.

'Rose Greeley': Evergreen Azalea [(*R. yedoense* var. *poukhanense* × *R. mucronatum*) F2 × (*R. yedoense* var. *poukhanense* × 'Hexe') × (*R. yedoense* var. *poukhanense* × *R. kaempferi*)]. A low-growing plant, dense and spreading, reaching 3-4' in ten years; sweet scented early midseason bloomer with widely funnel-shaped, 2½" hose-in-hose, wavy edged white flowers with a light yellowish green blotch; hardy to -10°F or lower, becoming hardier as it ages; resistant to phytophthora root and crown rot; hybridizer Joe Gable worked on this very complex hybrid for 17 years to reach his goal of a hardy white azalea.

SOUTHEASTERN REGION

'Haag's Choice': Elepidote Rhododendron [Probably *R. fortunei* (or *R. fortunei* hybrid: Nearing N4-20) × 'Charles Dickens']. A rounded plant with a dense growth habit, very floriferous when mature, being covered with pinkish lavender blossoms held in conical trusses; a midseason bloomer, reaching 3' x 4' in 6-7 years, maturing at 8'; hardy to -10°F, with long, dark green leaves that do best with filtered sun; connected to two of the best-known pioneers of American rhododendron hybridizing, a Guy Nearing hybrid, raised by Joe Gable, and later named and registered by the Gable Study Group.

'Southland': Lepidote Rhododendron (*R. minus* var. *chapmanii* (s) × prostrate form of *R. keiskei*). An early midseason bloomer with a mild fragrance, forming a low dense mound of glossy medium green leaves, reaching 2' x 3' in ten years; free-flowering, with apricot buds, opening light yellowish-pink or salmon with brown speckles in the throat, held in ball-shaped trusses of 10; an Augie Kehr hybrid that combines heat,

Vireya/Swisher Award



'Cephas'. Photo by Julie Miller.

drought, and sun tolerance with a good degree of cold tolerance as well.

Rhododendron vaseyi: Deciduous Azalea.

Named for George S. Vasey who discovered it in 1878 and commonly called the pinkshell azalea; uncommon in the wild and found only in the Blue Ridge Mountains of western North Carolina; grows at elevations of 3000 to 5500 feet, and can be seen in bloom along the Blue Ridge Parkway in late April-early May; hardy to -15°F with an open and upright growth habit, reaching 5' in 10 years, eventually attaining heights as much as 15'; one of the first species to bloom in the spring, with the scentless flowers appearing before the foliage emerges; the deeply lobed 2" flowers are openly bell-shaped and displayed in clusters of 4 to 8, generally in shades of pink, but ranging from white to rose or deep pink, and occasionally deep rose or almost red, often with brown or red spotting in the throat; they lack the long tubes characteristic of most other eastern azaleas; the flowers are attractive to butterflies, but *vaseyi* is not known to cross with other azaleas; the wavy-edged, hairless leaves, dark green with paler underside, turn to spectacular shades of scarlet, burgundy, or orange in the fall, varying with the temperature and amount of sun; in some instances of full sun, the leaves can be wine-red during much of year; while endangered in the wild due to habitat destruction and poaching, *vaseyi* has proven very adaptable under varying conditions in cultivation and is widely grown as it makes an excellent garden plant; some forms are propagated as named clones, with the white-flowered 'White Find' being perhaps the best known and a 2012 Rhododendron of the Year selection.

'Nancy of Robinhill': Evergreen Azalea ('Vervaeneanum' × 'Louise Gable' × 'Tamagiku'). A well-branching, low-growing plant with a broad, dense habit, wider than tall; has glossy, moderate olive green leaves; the late midseason bloomer is heat tolerant and hardy to -10°F; broadly funnel-shaped, wavy-edged, light purplish pink flowers, largely hose-in-hose, with some double or semi-double flowers, about 3½" across, with a small red blotch and some spotting on the dorsal lobe; one of the Robin Hill Azaleas hybridized by Robert Gartrell of Wycoff, New Jersey, and named for his wife Nancy.

GREAT LAKES REGION

'Phyllis Korn': Elepidote Rhododendron

('Diane' × 'Gomer Waterer'). Has wavy lobed, 4" creamy white flowers with a dorsal blotch of strong red that fades with age to a light greenish yellow; the heavily textured openly funnel-shaped flowers are held in domed trusses with up to 12 flowers; large thick textured foliage with very distinctive, dark glossy green, veined leaves, 5-6" long; has an upright, sturdy, well-branched habit, reaching 5-6' in ten years while growing slightly taller than wide; blooms in midseason, hardy to -15°F, hybridized by Robert Korn of Renton, Washington.

'Molly Fordham': Lepidote Rhododendron ('Balta' (s) × white flowered *R. minus* Carolinianum Group). Beautiful white rain-resistant trusses nearly cover the plant, bloo-

ming a little later than 'P J M.'; may have a slightly pink tone in a cold spring or a shady location; glossy dark green foliage on an upright and relatively compact plant reaching 3-4' in ten years, growing nearly as wide as tall; hardy to -20°F; another great Ed Mezitt/Weston Nurseries hybrid, named for the wife of Al Fordham, a long-time horticulturalist at the Arnold Arboretum.

Rhododendron vaseyi: Deciduous Azalea.

Named for George S. Vasey who discovered it in 1878 and commonly called the pinkshell azalea; uncommon in the wild and found only in the Blue Ridge Mountains of western North Carolina; grows at elevations of 3000 to 5500 feet, and can be seen in bloom along the Blue Ridge Parkway in late April-early May; hardy to -15°F with an open and upright growth habit, reaching 5' in 10 years, eventually attaining heights as much as 15'; one of the first species to bloom in the spring, with the scentless flowers appearing before the foliage emerges; the deeply lobed 2" flowers are openly bell-shaped and displayed in clusters of 4 to 8, generally in shades of pink, but ranging from white to rose or deep pink, and occasionally deep rose or almost red, often with brown or red spotting in the throat; they lack the long tubes characteristic of most other eastern azaleas; the flowers are attractive to butterflies, but *vaseyi* is not known to cross with other azaleas; the wavy-edged, hairless leaves, dark green with paler underside, turn to spectacular shades of scarlet, burgundy, or orange in the fall, varying with the temperature and amount of sun; in some instances of full sun, the leaves can be wine-red during much of year; while endangered in the wild due to habitat destruction and poaching, *vaseyi* has proven very adaptable under varying conditions in cultivation and is widely grown as it makes an excellent garden plant; some forms are propagated as named clones, with the white-flowered 'White Find' being perhaps the best known and a 2012 Rhododendron of the Year selection.

'Elsie Lee': Evergreen Azalea ['Desiree' × 'Rosebud' (Gable)]. An upright grower that can be quite open in shade; hardy to -15°F; the late midseason bloomer has 2-3", semi-double, frilly bluish-lavender flowers; a great plant, hardy and showy, listed as 3' in ten years, but normally grows taller; this Tony Shammarello hybrid is an exceptional parent in hybridizing and a hybridizers' favorite both in America and Europe; received the Award of Garden Merit in 2002 from the Royal Horticultural Society.

SOUTH CENTRAL REGION

'Breezy': Elepidote Rhododendron ('Janet Blair' (s) × *R. hyperythrum*). Free flowering plant with a well-branched, dense habit, growing to about 6' x 6' in ten years; has elegantly recurved, glossy deep green foliage; blooms early midseason, with dark pink buds opening into light pink, broadly funnel-shaped flowers, 3½" across, with wavy edges and a prominent maroon blotch, held in a ball-shaped truss of 8-12 flowers; product of an old standard crossed with a pink form of *R. hyperythrum*, a species from Taiwan that has been shown to have some resistance to Phytophthora root rot; a hybrid

by John T. Thornton, Franklinton, Louisiana, that is part of the Southern Living Southgate series of rhododendrons; developed to grow in the heat and humidity of the deep South, but should do well in all rhododendron growing areas as it is very heat tolerant and quite cold hardy, being hardy to -15°F.

‘Dora Amateis’: Lepidote Rhododendron (*R. minus* Carolinianum Group (s) × *R. ciliatum*). Compact and low-growing (to 3’ in 10 years), usually wider than tall, making an excellent foundation or border plant; a bushy shrub covered with broadly funnel-shaped white flowers with a spicy fragrance in early midseason; dense deep green foliage accented with bronze tones; the bronze color will take over in full sun, but best performance comes with some shade; hardy to -15°F; hybridized by Edmond Amateis of Brewster, New York; received the Award of Excellence from the American Rhododendron Society and the First Class Certificate in 1981 and the Award of Garden Merit in 1993 from the Royal Horticultural Society.

‘Golden Flare’: Deciduous Azalea (seedling from ‘Altaclerense’). A tall shrub with an upright, well-branched habit, reaching a height of 6’+ in ten years; 2½” vivid yellow openly tubular, funnel-shaped blooms with reddish orange blotch held in a ball-shaped truss of 12-14 flowers make a great display in mid- to late midseason; 4” to 5” long glossy medium green leaves on a very hardy plant, perhaps to -20°F; developed by Metselaar in Holland, a seedling of ‘Altaclerense,’ a European hybrid from the mid-19th century.

‘Jeremiah’: Evergreen Azalea (‘Pink Dawn’ × ‘Girard’s Rose’ (s) × ‘Girard’s Rose’). Heavy midseason bloomer with openly funnel-shaped, unmarked 2½” deep pink hose-in-hose blossoms with wavy lobes; has a self-branching habit, forming a compact, rounded plant, hardy to -10°F, and growing to 3’ x 3’ in ten years; glossy foliage turns a great bright red in the fall and winter; hybridized by Peter Girard, Girard Nurseries, Geneva, Ohio.

NORTHWESTERN REGION

‘Windsong’: Elepidote Rhododendron (‘Nancy Evans’ (s) × ‘Mrs. Betty Robertson’ × ‘Fred Rose’). Large buds open as frilly, light greenish-yellow flowers with a dark red throat, the openly funnel-shaped flowers held in ball-shaped trusses with 17 flowers; a compact plant with glossy olive-green leaves and an open growth habit, growing a little wider than tall and reaching about 4’ in ten years; an early midseason to midseason bloomer, hardy to 0°F, or perhaps a little below, hybridized by Jim Barlup of Bellevue, Washington.

‘Razorbill’: Lepidote Rhododendron (*R. spinuliferum* seedling). Deep pink buds open in early midseason to conical trusses of 6-12 upward-facing pale purplish-pink, tubular flowers, with lighter centers and variable darker pink overtones; very free-flowering with flowers on nearly every terminal; crinkly and hairy dark green foliage on a small, compact shrub, growing wider than tall, reaching about 2-3’ in ten years; hardy to about 0°F; said to be hard to root; often noted as a selection of *R. spinuliferum*, but

is a hybrid by Peter A. Cox, of Glendoick, Scotland; highly honored by the Royal Horticultural Society with the Award of Merit in 1981, First Class Certificate in 1983, and Award of Garden Merit in 1993.

'White Lights': Deciduous Azalea (parentage unknown). Extremely floriferous and extremely hardy (bud hardy to -35°F); light purplish-pink flower buds open to a funnel-shaped, pale purplish-pink flower fading to white with a light orange-yellow blotch; the fragrant clusters of late midseason flowers cover the plant before the leaves emerge; has a rounded, well-branched habit, maturing at about 5' with an equal spread; good fall color, with the narrow, rich green leaves turning to reds and purples in the fall; registered with parentage unknown, but said to be a hybrid of *Rhododendron prinophyllum* and an unnamed white-flowering Exbury hybrid; part of the University of Minnesota Northern Lights series developed under the guidance of Harold Pellett; while bred for extreme cold hardiness, does well in many different climates.

'Purple Splendor': Evergreen Azalea (*R. yedoense* var. *poukhanense* (s) × 'Hexe'). A classic plant with a spreading habit, growing in an upright manner with good vigor, reaching 4' in ten years; a Joe Gable hybrid hardy to -15°F; very floriferous with long-lasting, frilly, hose-in-hose, orchid purple blooms with a darker blotch that smother the plant in midseason; a much-requested cultivar that still remains one of the best "purples" for the garden; received the Award of Garden Merit in 1993 from the Royal Horticultural Society (Not to be confused with the elepidote rhododendron 'Purple Splendour'.)

SOUTHWESTERN REGION

'Rubicon': Elepidote Rhododendron ('Noyo Chief' × Kilimanjaro Group). A compact grower with excellent glossy deep green foliage with deep veining; reaches about 5' in ten years; has a dense truss of 17 or 18 bell-shaped deep red flowers with black spotting on the upper lobes; an early midseason bloomer with a long blooming period; a very good and popular red, hardy to 5°F and maybe a little lower; a Ron Gordon hybrid from New Zealand.

'John Paul Evans': Lepidote Rhododendron (*R. nuttallii* × another plant of *R. nuttallii*). An early midseason bloomer with huge, fragrant, Easter Lily-like blossoms 4" across, with wavy-edged lobes held in a flat truss of 5 flowers; the light yellow buds with pink tips open light yellow to white, with a brilliant orange-yellow throat; a well-branched, upright tree, growing to 7' in ten years, and as tall as 30' at maturity; has large and heavily textured leaves with conspicuous veins and papery reddish-brown bark on trunk and branches; a tender plant, hardy only to 30°F; for colder climates, try growing in a large container, moving into a greenhouse for the winter; hybridized by Dr. John Paul Evans, Oakland, California.

'Homebush': Deciduous Azalea (unknown). Very popular Anthony Waterer/Knap Hill hybrid; semi-double, deep rose pink blooms with pointed petals in a tight ball-

shaped truss of up to 16 flowers; has an open, upright growth habit and holds the color of its late midseason blooms well in the sun; hardy to -20°F; growing to 6' in 10 years; Award of Merit in 1950 from the RHS.

'Cameo': Evergreen Azalea (*R. yedoense* var. *poukhanense* × *R. kaempferi* × *R. indicum*, double form). Later blooming, upright grower reaching 5' with a spreading habit, 1½" rosy-pink hose-in-hose flowers with a tendency to doubles; not as hardy as most Gables, but still hardy to -10°F; developed by Joe Gable in Pennsylvania, but named and propagated by others; known to Gable as "2-G"; sometimes mis-identified as a Glenn Dale.

VIREYA/SWISHER AWARD

'Cephas': ('Doctor Herman Sleumer' (s) × *R. leucogigas*). Has tubular funnel-shaped, wavy-edged purplish-pink flowers with a paler pink throat, usually from November to February; the scented blooms are extra large, over 7" across, and held in a domed truss of 4-7 flowers; a sturdy, upright shrub with large dull green leaves, growing as wide as tall, reaching 3-4' in twenty years; hybridized by Peter Sullivan of San Francisco, California; sometimes incorrectly listed as 'Cephus.'

Nursery Sources for ROY Plants

The nurseries that advertise in this issue of the journal carry many of the Rhododendron of the Year plants. See their advertisement in the back pages of this issue of the journal.

Early Chapter Shows

Chapter shows from April to May 1, 2013. Shows during May 2013 will be listed in the spring issue.

No admission charge unless noted.

AZALEA - Azalea Chapter Annual Plant Sale; 9 a.m. until we run out of plants! Sat., April 13. Oak Grove United Methodist Church, 1722 Oak Grove Road, Decatur, GA 30033; A wide variety of native azaleas, evergreen azaleas, other rhododendrons, and companion plants will be offered. Plan to come by on the way to the 2013 ASA convention to obtain these hard to find plants at great prices.

CALIFORNIA - ARS Annual Flower Show and Plant Sale; entries 8:00 – 10:00 a.m., Sat., April 20; judging 10 a.m. – noon, Sat., April 20; open to public noon – 5:00 p.m., Sat., April 20, and 10 a.m. – 4 p.m., Sun., April 21; Lakeside Park Garden Center, 666 Bellevue, Oakland, CA. The show and flower sale have no admission charge. The adjoining Lakeside vireya garden and rhododendron garden are also open for viewing and there is a car parking charge on entry to the Lakeside Park at Grand Ave entrance.

EUGENE - Spring Rhododendron Show and Awards Banquet; Sat., April 20; Mookie's Northwest Grill, 400 International Way, Springfield, OR. Afternoon flower show judged by attendees, foliage exhibit, no-host dinner, speaker Mike Stewart on Species Azaleas of North America, plant auction. For details: www.eugene-chapter-ars.org. Ted Hewitt.

EUREKA - Rhododendron Show and Sale: 9 a.m. – 4 p.m., Sat., April 27, and 10 a.m. to 3:30 p.m., Sun., April 28; entries received 6 to 9 p.m., Fri., April 26, and 7 to 9 a.m., Sat., April 27; St. Bernards School, Miles Hall, Henderson St., Eureka, CA; Tom Marking

FRASER SOUTH - Annual Sale and Display; 10:00 a.m. – 3:00 p.m., Sat., April 20; The United Church, 5673 – 200th Street, Langley, BC.

MONTE ARROWSMITH - MARS Truss Show and Rhododendron Sale; 10 a.m. – 2 p.m., Sat., April 27; Parksville Curling Rink, Parksville, BC, Canada; Glen Jamieson.

NEW YORK - Early Flower Show; 2:30 – 4:30 p.m., Sun., April 21; Planting Fields Arboretum. Oyster Bay, NY. Free admission to the show. Admission fee to the Arboretum for Non-Members. Bruce Feller.

NORTH ISLAND - Plant Sale; 10:00 a.m. – 1:00 p.m., Sun., May 5; First Nations Komox Hall located on Comox Road. North Island Rhododendron Society Garden Tour; tour time is between 10:00 a.m. and 4:00 p.m., Sun., May 12 (Mother's Day); tour of 6-8 gardens in the Courtenay – Comox Valley.

NOYO - 36th Annual John Druecker Memorial Rhododendron Show and Plant Sale. May 10-12. This year's show will be held over Mother's Day weekend, the second weekend in May; Judging will take place on Fri., May 10; show will be open to the public 9 a.m. – 5 p.m., Sat. and Sun., May 11 & 12; Mendocino Coast Botanical Gardens, 18220 N. Highway 1, in Ft. Bragg, CA There will be hundreds of gorgeous flowers on display, celebrity judging, people's choice awards, raffles, and an opportunity to purchase plants on site.

SIUSLAW - Early Rhododendron and Azalea Flower Show and Plant Sale and Display of Flowering Rhododendron and Azalea Bonsai; 1 – 5 p.m., Sat., April 13, after judging,



and 10 a.m. – 5 p.m., Sun., April 14; open to public at no charge; Florence Events Center, 715 Quince, Florence, OR 97439; Flowering Bonsai Display located inside the building with the flower show; Plant Sale open to public on Sat. and Sun., located outside south side of building from 10 a.m. – 5 p.m.; public may bring flower trusses for judging on Sat. from 7 – 9 a.m.; ribbons and trophies will be awarded. It's a great time to ask questions, find books and information and enjoy azalea and rhododendron blooms. Jenny Velinty.

VANCOUVER - Vancouver Show and Sale; 10 a.m. – 3 p.m., Sat., May 11; Park and Tilford Gardens, 333 Brooksbank Avenue and Main Street, North Vancouver, BC.

VICTORIA - 2013 Show and Sale; 9 a.m. – 4:30 p.m., Sat., April 27th, Tillicum Mall; 9 a.m. – to noon, Sat., May 11, Sale at Abkhazi Garden; 9 a.m. – 4:30 p.m., Sat., May 25, Show & Sale, Westshore Town Centre.

Broken Arrow Nursery

"We rest on our laurels"

Growers of Rare and Unusual Plants
13 Broken Arrow Rd., Hamden, CT 06518

For mail order visit:

www.brokenarrownursery.com

great
for instant
privacy

RHODODENDRONS

—acres and acres—
now available 3' thru 15'
plus blueberries

HIDDEN ACRES NURSERY

19615 SW Cappoen Rd. Sherwood, OR 97140
(503) 625-7390; www.hiddenacresnursery.net

Vireyas!

White Cloud Nursery

Certified Nursery • Shipping • Garden
Catalog at: www.whitecloudnursery.com

P.O. Box 1387, Pahoehoa, Hawaii 96778
(808) 345-3345

AZALEA HILL GARDENS & NURSERY

EVERGREEN AZALEAS

We grow Glenn Dale, Back Acre, Robin Hill, Satsuki,
Huang, Holly Springs and others

Azalea Liners: 4-inch pots. We ship!

1106 S. Evans Road, Pine Bluff, Arkansas 71602

Phone: (870) 247-1574

Visit: www.azaleahillgardens-arkansas.com

Whitney Gardens & Nursery

Rhododendrons & Azaleas – Hybrids & Species
Maples, Magnolias, Kalmias, Conifers, Camellias and Perennials

We ship from our garden to your garden.

A new catalogue is available FREE.

P.O. Box 170, Brinnon Washington 98320-0170

Phone: (800) 952-2404 • Fax: (360) 796-3556

E-mail: info@whitneygardens.com • Web Site: www.whitneygardens.com

District 12, American Rhododendron Society¹

Nicholas Yarmoshuk
 Director, District 12
 St Catharines, Ontario
 Canada



District 12 is one of two American Rhododendron Society (ARS) Districts located in Canada. District 1, located on the Pacific coast of British Columbia, is composed of seven chapters with 396 ARS members. Five of these chapters are located on Vancouver Island; the other two are in Vancouver and in the Fraser Valley. Located on the eastern side of the continent, District 12 is composed of three chapters, Niagara Region, Toronto and Atlantic, with a total of 117 ARS members. The first two are situated in south-central Ontario on the shores of Lake Ontario while the third is centered in Nova Scotia on the Atlantic coast.

The Rhododendron Society of Canada (RSC), founded in 1972, became ARS



District 12 in 1992. At its founding, the new society had as its intent “to show that *Rhododendron*, as a horticultural genus, could be grown north of the Great Lakes” and that “growers in the Maritimes, Central Canada, and British Columbia would be a unifying force through development of friendships, exchange of information and experiences, as had been the case in other horticultural societies”². The original founding group was based in the Toronto/Mississauga, Ontario, area although representatives from various parts of the east and west coast participated in the direction of the new society. Ninety-four persons comprised the founding membership. The Niagara Region Chapter was formed in 1976 with 36 RSC members. The Atlantic Chapter was founded in 1977 with seven founding members. When the RSC became ARS District 12, it retained its Canadian identity and name.

Rhododendrons in Nova Scotia

The Atlantic Chapter draws the vast majority of its membership from Nova Scotia, but members are also located in Newfoundland, New Brunswick, Quebec, New Hampshire and Finland. Currently, there are no members from Prince Edward Island, the other Canadian Maritime Province. In 1972, Capt. R.M. Steele, the Atlantic Chapter’s revered rhododendron hybridizer, made some very interesting observations about the geologic history and growing conditions in Nova Scotia which, including Cape Breton Island, is 805 km (500 miles) long and about 80 km (50 miles) wide. He wrote, “It was overrun by ice on a number of occasions during the glacial period” and “The post glacial period of Nova Scotia does not exceed 15,000 years and may be as little as 10,000 - 11,000 years.”

“There are large areas of bare rock that are often sculptured into dramatic soft curves by the action of ice and the erosions of weather. In these areas, the only soil has generally a very acidic tundra-like composition, on which mosses, lichens, ericaceous and heath-type plants abound. In the hollows and on the perimeters of such areas, particularly where sphagnum and peat bogs occur, *Rhododendron canadense* is found in great abundance.”

“The remainder of the province is generally a fairly acidic soil on which hemlocks, pines, spruce, balsam fir, maple, beech and birch grew on well drained areas; with tamarack and black spruce still predominating in the bogs and the swamps.”³

The horticultural climate of Nova Scotia ranges from Hardy Zone 5a (Springhill) to 7b (Yarmouth).⁴ While *R. canadense* in the type form is known to grow in many areas of the province, it is feared that the “alba” form may have been eradicated with the construction of highways in the early 1970s. *R. maximum* was thought to exist in the wild in the late 1800s and was believed to be called the “Green Tree” by the native peoples. Examples of very large *R. maximum* currently exist in various locations but their provenance is uncertain. There is speculation that these may have been imported in the very late 1800s from nurseries in the Boston area⁵.

Rhododendrons have graced the grounds of the Agricultural Research Station at Kentville since 1919. The rhododendron breeding program there was started by Dr. D.L. Craig in 1958 and continued to his retirement in 1983. Under his leadership, the Kentville Research Station was a hot-bed of hybridizing, testing and selection of rhododendrons. Rhododendron work at Kentville stopped with Dr. Craig's retirement. Among cultivars registered from his work are: *R. 'Minas Grand Pré'* (*R. catawbiense* var. *compactum* × *R. williamsianum*), *R. 'Bellefontaine'* (*R. fortunei* × *R. smirnowii*), *R. 'Minas Peace'* (('Catalga' [*R. catawbiense* var. *album* 'Glass'] × *R. degronianum*) × *R. degronianum* ssp. *yakushimanum*), and 11 others, all registered with the Royal Horticultural Society⁶. Today, rhododendron hybridizing continues with Bruce Clyburn, Walter Ostrom and John Weagle among active breeders.

Rhododendrons in Toronto / Mississauga /Niagara

The area around Toronto is considered to be USDA Zone 5 and just north of Toronto probably USDA Zone 4⁷. Soil conditions in relatively rural areas are very alkaline and vary between sandy loams to hard clay. Gardeners in this area must be alert to providing appropriate pH levels and be sensitive to ensuring proper soil drainage. Temperatures in the winter typically drop to -12^o C (10^o F) and may remain there for several weeks. Even with a more mild winter, late frosts in late April and early May often contribute to blasted buds, although the plants may not be harmed. July and August tend to be hot and dry. In recent years daytime temperatures of approximately 32^o C (90^o F), night temperatures not falling below 21^o C (70^o F), with attendant weeks of drought, have challenged growers and plants alike. Unlike the lovely maritime atmosphere found on the east coast, some consider this mild area of Ontario to be a "hostile environment" to rhododendrons. Indeed, to the best of our knowledge there is no record of stands of native rhododendrons or azaleas in Ontario, including the area of Carolinian Forest in southwestern Ontario. But gardeners have persevered, and are meeting the challenge of growing rhododendrons and azaleas in Ontario.

Rhododendrons and azaleas are likely to have been grown in this area since the mid 1800s. References to the availability of *R. canadense* and *R. viscosum*, the swamp honeysuckle, can be found in catalogues of Toronto area nurseries that date back to this period⁸. However, these plants were probably imported from the eastern United States, where an active interest in rhododendrons was being developed among affluent growers⁹. Unconfirmed reports exist that suggest that rhododendrons were imported from the eastern United States in the early 1900s to build gardens on the McLaughlin (Canada's early automobile magnate's estate) in Oshawa, ON.

A watershed year for the introduction of rhododendrons to organized horticulture in southern Ontario is 1938, when test plantings were attempted at Guelph University north east of Toronto. By the late 1940s, Leslie Hancock was using *R. smirnowii* and *R. fortunei* in hybridizing rhododendrons to meet the weather conditions in Ontario.

In 1952, *R. carolinianum*, *R. impeditum*, *R. hippophaeoides*, Blue Tit Group and Blue Diamond Group were being grown at Woodland Nursery in Mississauga and by 1955, balled and burlaped rhododendrons and azaleas were being offered by Woodland Nurseries for sale to the gardening public.¹⁰

Undoubtedly Leslie Hancock and Woodland Nurseries were foremost among the driving forces that led to the rapid growth of popular interest in rhododendrons in southern Ontario. He served as editor of the Bulletin of the Rhododendron Society of Canada for many years, was a mentor to young growers, shared the results of his hybridizing with many in the new Society and encouraged testing of rhododendrons in various areas and especially at the Montreal Botanical Gardens (MBG). His efforts have been recognized by the expansion of MBG's ericaceous collection to house more than 1000 rhododendron plants¹¹ and naming the collection the Leslie Hancock Rhododendron Garden. District 12's most prestigious recognition for service to the District is called the Leslie Hancock Award.

Many others were avid growers and collectors. Most notable are three gardeners: Ken Duncan was instrumental in developing the azalea collection at Toronto's Edward Gardens; Dave Hinton at Orono braved the elements of USDA Zone 4b to develop 'Sandra Hinton', which has been widely used in hybridizing work in eastern North America¹²; and Joseph Brueckner¹³, who started his hybridizing in St. John, New Brunswick, moved his entire collection of plants 1000 miles west to a lovely location in Mississauga and continued his work to 1994. During this period he donated a very large number of plants to the City of Mississauga. The public gardens, along the shores of Lake Ontario, are named the Brueckner Rhododendron Gardens¹⁴. There are currently 26 registered Brueckner hybrids; several are available commercially and others are being propagated for evaluation by members of the Niagara Chapter.

Dr. Frank Palmer, an early director of the government-funded Horticultural Institute of Ontario (HRIO) in the Niagara community of Vineland Station, fathered Ontario gardeners' interest in rhododendrons. He established a Rhododendron Fund to honour the memory of his son killed in World War II, and encouraged research in rhododendron culture. In the early 1950s before Palmer's arrival, Bob Fleming, a Guelph University graduate had developed several rhododendron beds. Roy Forster, a Kew Gardens graduate, was hired to hybridize rhododendrons. He and Fleming planted a large collection of rhododendrons along the banks of a stream and in a woodlot. Forster's work was continued by Ken Begg and later by Al Smith, who started in 1974. Al, a founder of the Niagara Region Chapter, had from 1951 to 1972 independently built a collection of more than 80 rhododendrons at his home¹⁵ in Niagara Falls, Ontario. During his tenure at the HRIO, Al evaluated and continued the work of his predecessors and in a brief report he listed 15 registered unnamed cultivars¹⁶; an additional 26 named cultivars produced at HRIO are registered. The rhododendron evaluation and hybridizing program at HRIO ended with Al Smith's death in 1989.

Today, 23 years later, the grandeur of the original rhododendron plantings at HRIO is little evident. One large bed of deciduous azaleas, containing valuable crosses using 'Chelsea Reach', remains. These azaleas are known locally for their extreme resistance to powdery mildew. Hybridizing work on rhododendrons in Niagara continues at Rhodoland Nursery with Jack Looye, a protégé of Al Smith and Weldon Delp, who is one of Ontario's most active hybridizers of rhododendrons. He makes up to 100 crosses a year, and his goals are to develop hardy yellows, oranges and reds. Jack is also recognized for his work with lepidotes. Jack and his wife Jackie are currently evaluating over 5,000 hybrid seedlings¹⁷.

The Niagara Chapter hosted the 1998 ARS annual convention in Niagara Falls, Ontario. The 2013 Eastern Regional Fall conference, organized by the Atlantic Chapter of District 12, will be held in Dartmouth, Nova Scotia, Canada on October 4 – 6, 2014. Today, District 12 members continue to promote the use of rhododendrons and azaleas in gardens and are meeting the challenges imposed by changing social, economic and physical environments.

Endnotes

- ¹ This brief description of ARS District 12 borrows information originally published in the *Bulletin of the Rhododendron Society of Canada*. Direct quotes and supplementary material are fully acknowledged. All issues of the *Bulletin of the Rhododendron Society of Canada* may be found at http://www.rhodoniagara.org/pdf/Link_ToC_RSC_Bulletins.pdf
- ² Letter from Honorary President Dr. Edmund F. Palmer, Horticultural Research Institute of Ontario, Vineland Ontario. 1972. *Bull. Rhododendron Soc. Canada 1: 4*.
- ³ Steele. R.M. 1972. Title? *Bull. Rhododendron Soc. Canada 1: 9*.
- ⁴ from: <http://www.plantmaps.com/interactive-nova-scotia-plant-zone-hardiness-map.php>
- ⁵ Steele. Op. cit. Pages 10-11.
- ⁶ Craig, D.C. 2003. Fifty Years of Testing and Breeding Rhododendrons in Nova Scotia. *AtlanticRhodo 27, No.2*, May 2003. See also: http://www.atlanticrhodo.org/kiosk/f_kiosk.html (page number, and the url doesn' go to this article)
- ⁷ Note that definitions of USDA Zones are usually one point lower than Canadian Zone definitions. The USDA system is simple: it's based solely on *average annual minimum temperatures*. Canada uses a *complex formula of seven variables*; the product of that formula determines the zone number. Variables include lowest mean temp of the coldest month, highest mean temp of the hottest month, precipitation, number of frost-free days and other factors.
- ⁸ Archives of the Library of the Royal Botanical Gardens, Burlington, Ontario - The assistance of Dr. David A. Galbraith, Head of Science / Biodiversity Programs Division, Royal Botanical Gardens, Hamilton Ontario, and that of the library volunteer staff led by Elizabeth Avery and Marie Minaker, in accessing and using archival material is gratefully acknowledged.
- ⁹ Richard Murcott. History of Ironclad Rhododendrons. *Newsletter of the New York Chapter, American Rhododendron Society*. 1990.
- ¹⁰ Woodland Nursery Plant Catalogues. Archives of the Library of the Royal Botanical Gardens, Burlington, Ontario.
- ¹¹ Private communication from the curator (Richard Dionne) of the Montreal Botanical Gardens rhododendron collection, 2007.
- ¹² See Hinton's "Rhododendron Woods", http://www.rhodoniagara.org/dh/davehinton_2009_background
- ¹³ Brueckner, J. 1973. Title? *Bull. Rhododendron Soc, Canada 2: 4*; and *5: 14*.
- ¹⁴ <http://brueckner-rhododendron-gardens.blogspot.ca/>
- ¹⁵ For an overview of Al Smith's home garden see, Brian Schram, "Al is in Wonderland." *Bulletin of the Rhododendron Society of Canada*, Vol.18, No 1, 1989, Page 3.
- ¹⁶ A.W. Smith, "Vineland Rhododendron Hybrids." *Bulletin of the Rhododendron Society of Canada*, Vol.10 No.1, 1981 Page 21.
- ¹⁷ See: <http://www.rhodolandnursery.com/Hybridization.html>

Pruning

(Reprinted from the Noyo Chapter March 2012 newsletter)

To prune or not to prune, that is the question! If you need to prune, it's time to think about what pruning you may want to do on your rhododendrons. First you need to decide what your objectives are. If your objective is landscaping or garden design then your pruning requirement would be different than my objective, which is to create flower trusses and sprays for the show.

I would like to take this opportunity to state my philosophy in selecting and planting rhododendrons for landscaping and garden design. If that's your main goal and you select your landscape rhododendrons properly, you should never have to do any heavy pruning. If your objective is to have rhododendrons that are short rounded bushes, don't buy and plant rhododendrons that want to grow into trees. I think it's a crime to buy a tree and then continually prune it into a bush. You wouldn't plant a redwood tree and then try to turn it into a redwood bush and you wouldn't plant an apple tree and try to make it an apple bush. Likewise don't buy a tree form or large growing rhododendron and then try to keep it a small bush, unless you like doing a lot of pruning. Instead, just buy the bush form rhododendron and it will stay a bush without pruning.

If you want a small compact bush then, buy rhododendrons that grow in a small compact bush form. For example if you want a yellow rhododendron but don't want a rhododendron that grows to ten feet (three m) tall, and don't want to have to prune it to keep it small, then buy 'Lemon Mist' instead of 'Saffron Queen'. You will get the same flowers and foliage in a compact plant that will stay round and compact about three feet (0.9 m) tall without pruning. Likewise if you like *R. arboreum*-type flowers and foliage, don't buy the tree form *R. arboreum*. By one of the several (*R. arboreum* × *R. degronianum* ssp. *yakushimanum*) crosses that have a compact form, such as 'Noyo Dream' or 'Noyo Brave'.

Most plant descriptions in catalogs give the height in ten years. If it says six feet (3 m) in ten years, remember that also means 12 feet (3.7 m) in 20 years and 18 feet (5.5 m) in 30 years. When landscaping look for foliage and form before looking at flowers. Many people buy a plant because they like the flowers, and never consider the plant form until it's too late.

I like trees, large bushes, small bush, dwarf bush, and ground cover form rhododendrons. I collect all these forms. I let the tree rhododendrons grow into trees and under and around the trees I plant the bushes, stepping them down to the dwarfs and ground cover forms.

Dennis McKiver
Fort Bragg,
California



Many of my dwarf rhododendrons may live their lives in containers as bonsai.

Now, back to the pruning. The pruning I do is to shape and improve flowers for show entries. When is the best time to prune? The best time to prune rhododendrons (and most other ericaceous shrubs) is while they are blooming, or right after, before they put out new growth. This is a good reason to cut flowers and sprays for the show or just for flowers for your house. If you can't bear to cut your flowers off of your blooming plants, then prune as soon as the flowers wilt and before the new growth emerges.

You can do light pruning to shape the plant anytime of the year, but save any heavy pruning until spring, just before the new growth emerges. Especially don't prune your evergreen rhododendrons way back to where there is no green foliage left. You may get away with this in the spring just after they bloom, but I caution you not to do it in late summer or fall when they don't have time to put out new leaves before winter. Rhododendrons don't have tap roots and they don't store energy in their roots, at least not enough to make it through a long winter. That's why they are evergreen. They need to make food year round. If you take away all their food making leaves, some may live through it, but many will die.

My pruning schedule is as follows: I start in the fall when the buds start to form. When I'm pruning for show flowers (see P. 15), I prune off any excess buds (hammer heads, i.e., 2+ flower buds on the same stem) and any leaf buds under the flower bud that may push the flower bud over from a straight vertical position. Then if I have a nice terminal flower bud with good leaves, that looks like it could make a good entry truss, I may prune off any branches on that stem that may not have buds. I want all the energy to that branch to feed the one flower I'm going to enter in the spring flower show. I also start looking for potential sprays and again I prune off any extraneous branches and foliage that I don't want in the spray. In other words, I start choosing and grooming my trusses and sprays for the show, in the fall and through the winter and early spring.

Then, as the flowers start blooming in the spring I start taking cut flowers to shape the plant for next year. After the plants finish blooming, I prune off the dead flowers and prune to shape the plant and encourage new branches. When the new growth starts to emerge, I may do some pinching of the new growth to encourage branching to make the plant denser with more flower buds. Don't wait too late to pinch or you may not get any flower buds forming next year.

If on the rare occasion I have a large plant that I want to make smaller, I may do some more aggressive pruning. If I want to bring the height down to where there is no foliage, I don't like to do it all at once. Some rhododendrons can handle this, but some won't. Most ponticums, such as our native *R. macrophyllum*, originated from fire-maintained plant communities. They have adapted to being burned to the ground and will sprout new growth from the surviving roots. This also applies to most ponticum hybrids. Because of this, they respond well to heavy pruning. Still though, if you prune it too late in the year, you may risk killing them. Others, such as *R. arboreum*, are like pine trees. If you cut off all the foliage they will most likely die.

If it's a rhododendron I don't really care about, then I may go for a heavy pruning, but if it's one I wouldn't want to lose, then I will be more conservative. In that case, I like to stage my pruning. I'll take off 1/3 of the plant. This will most likely open it up and stimulate some new growth coming out of the lower branches. Then the next year I will remove the next 1/3, reducing the plant size by 2/3 over two years. This method will also allow you to continue to have some blooms over this time. Otherwise, if you take off virtually all the foliage in one heavy pruning, you may not have any blooms on it for the next two or three years. I did this on one large rhododendron and it had to grow back to its original size before pruning, which took three years, before it bloomed again. I have since had better luck with staged prunings.

Many of my rhododendrons are experiencing some pruning that does not involve me. They are growing under large redwood trees and during the winter, these have a tendency to drop large branches that crush some of my rhododendrons. Last year a large branch fell square on top of my 'Dr. Arnold W. Endtz'. There was absolutely nothing visible left, as it broke off the plant at ground level and pounded the stump into the ground. This was in December and I thought for sure it was a goner. To my surprise, it sprouted a new shoot from the roots and is now growing back. I've even had branches come down and split a plant straight down the middle, which resulted in my having two separate plants as a result; both are growing just fine now. The point is that some rhododendrons can survive and thrive through some major pruning. So, go for it and don't be afraid to cut away to get your plants to look the way you want.

Dennis McKiver is a member of the Noyo Chapter and an associate member of the Eureka Chapter.

Sunset Garden

37-year-old woodland garden
in Kingston, Washington.
Opens March 1st,
4 acres of rhody species & hybrids
plus hellebores, daphnes, peonies
and many other fragrant
& interesting specimens.

Appointment only
1-360-598-1527
larbender369@yahoo.com

The Azalea Society of America

Dues \$25 per year
Includes four issues of
THE AZALEAN
**For more information or
to receive a membership brochure**



Contact: Membership
The Azalea Society of America
1000 Moody Bridge Road
Cleveland, SC 29635-9789
or email azaleabits@yahoo.com

First Image of a Rhododendron on a Legal-tender Coin

Glen Jamieson
Parkville, BC
Canada



In late September 2012, the Royal Canadian Mint released the \$20 Rhododendron Blossoms Pure Silver Proof as the third coin in the Crystal Dewdrops Series and Wildflower Series and the eighth release in the Swarovski Crystal Flora Program. The image is that of the Pacific rhododendron (*Rhododendron macrophyllum*) from the North American Pacific Coast, which is enjoyed in gardens across much of North America. The Water Lily Pure Silver Proof (2010) was the first in the Crystal Dewdrops Series and the third release in the Swarovski Crystal Flora Program, while the Wild Rose Blossoms Pure Silver Proof was the second in the Crystal Dewdrops Series and the fifth release in the Swarovski Crystal Flora Program.

The coin's special features are an artistic rendering of two pink-coloured Pacific rhododendron flowers and a bud, three crystals nestled among the rhododendron's petals and leaves, a Finish Proof, a limited mintage (10,000), and a composition of fine silver (99.99% pure). The coin comes enclosed in a maroon flock-lined clamshell case, is protected by a black sleeve and has a serialized certificate to document its quality. The coin weighs 31.39 g (1.11 oz US) and has a diameter of 38 mm (1.5 in). As of Sept 20, 2012, 8200 of the 10,000 coins being minted had been pre-ordered, so while details may be found on the Canadian Mint website (http://www.mint.ca/store/buy/silver_coins-cat120006), availability by the time this *JARS* issue arrives may be only through coin dealers.

Hardy
Rhododendrons,
Azaleas, Shrubs,
Trees & Perennials.



We ship east
of the Rockies



rareFINDnursery inc

ORDER ONLINE AT
www.rarefindnursery.com

120 Page Catalog - \$3 • We ship all year long
957 Patterson Rd. • Jackson, NJ 08527 • 732-833-0613

Election of District Directors

In accordance with Article IX, Section E of the Bylaws, the chapter presidents in ARS District 1, 2, 7, and 10 served as their districts' nominating committees. These committees have proposed the following nominees. The nominees are automatically certified as having been elected. The three-year terms of all who are elected will commence at the adjournment of the Society's 2013 annual meeting.

DISTRICT 1

District Director Ken Webb

The first time Ken saw a Victoria Rhododendron Society flower show, he knew he was hooked. He and his wife Madeleine worked furiously at buying as many rhodos as they could find in the local nurseries to develop their new 1-acre property. It wasn't long before Ken realized there were a lot of plants that weren't available through normal channels. He talked to Norm Todd about propagating and built a propagator and started the Propagating Group so others could learn too. For almost 20 years Ken and the Propagating Group have been growing rhododendrons in Victoria and supplying many chapters with plants for raffles, etc. Eventually, he started growing from seeds too, and bought many packages through the ARS Seed Exchange and the RSF. Along the way Ken and Madeleine discovered conventions and have travelled extensively throughout North America and Scotland and even to Germany to see rhododendrons and rhododendron people. They have met many very good friends from all around the world. There is nothing Ken likes better than just spending time with other rhodo people and talking about plants and habitats and whatever other ideas come up. His recent Propagating Workshop was a perfect example of this: A whole day of nothing but rhododendrons with 40 other people to spend it with. Ken has served a couple terms as Member-at-large for the Victoria Rhododendron Chapter and has been the Alternate Director of District 1, because he wants to help the ARS survive and prosper. He believes that the more you put in, the more you get out. So in the beginning, it was the flowers, but now maybe it's the people. Whatever it is, whether it is another convention or another chapter meeting or another trip for cuttings or seeds or just to another garden or flower, you will almost always find Ken there.

District Director Alternate Chris Hodgson

Chris Hodgson was born in Yorkshire, England, where he spent his early childhood years. His family immigrated to eastern Canada in the early '50s. He was educated in Ontario and Quebec, graduating with a Ph.D. in geology in 1969 from McGill University. Most of his professional career has been spent (miss-spent?) exploring for base and precious metals in Canada and Latin America.

His first recollections of gardening were at the age of five "helping" his father plant out potatoes and Brussels' sprouts in the family victory garden on the Yorkshire moors. At age 10 he was growing peanuts on the sandy shores of Lake Ontario. At age 15 he was working in the orchards of the Niagara Peninsula. And at age 30 he planted out his first rhododendron, a 'Taurus', in North Vancouver, BC.

He and his wife, Margaret, now live in south Surrey, BC. They have raised three children, partially raised (OK, babysat) five grandchildren and are presently raising an apple orchard, a vegetable patch and a couple of hundred rhododendrons on their Surrey property.

Chris has been a member of the ARS since 2003, first with PARS (Peace Arch Rhododendron Society) and currently with the FSRS (Fraser South Rhododendron Society) of District 1. When it comes to rhododendrons, Chris claims to be merely an enthusiastic amateur.

DISTRICT 2

District Director Richard Fairfield

Richard Fairfield was born at a very young age in Long Beach, CA. After High School in Walnut Creek, CA. he attended the University of California, Davis campus, where he began with an

Engineering major for one year, then switched to Wildlife and Fisheries Biology to receive his BS degree in 1971. Not sure what to do with that degree, he went another year and received a secondary school teacher's credential in Bio Sci with a minor in Math and Chemistry. Now he had something he could use and ended up teaching at the Covenant High School in Unalakleet, Alaska, for a year. After returning to CA, he married his first (and only) wife in 1973 and after a short stint repairing railroad bearing, he returned to UCD and received a Master's of Science in Electrical Engineering in 1976. The next three years saw him working at US Steel as a management training and then as their apprentice instructor. 1979 saw Richard and his wife moving to Washington to have a career with Boeing. During that stint, received an MBA from Seattle Pacific University and he took on classes from UCD to receive a Certificate of Wine Making. (Is he over-educated for everything!?) Currently retired from Boeing, he is the owner and wine maker of Cedar Ridge Winery in Snohomish, WA, and spends the rest of his time building and planting his portion of the 5-acre garden, including a Gazebo, a miniature Japanese Garden, an informal classical style garden, numerous out buildings, various projects for the better half and most recently, carved a rhody garden out of the forest— two more areas of forest are on the chopping block for rhody beds. He currently has about 200 different varieties and many species of rhodys on the property.

Richard and his wife have only recently gotten the rhody "bug," though some of his plants have been moved twice and are over 25 years old. He has done a little grafting of rhodys and has harvested his first hybridized seeds this fall (but worried may never see the results) and wishes he had started much earlier.

Richard is seeking this position to expand his exposure to the rhododendron world and knowledge of rhododendrons; has the impetus to visit other chapters and perhaps be apply his administration capabilities to the society at large.

Checklist:

1. Richard Fairfield – applicant for District 2 Director
2. Snohomish, WA
3. Affiliated with the Pilchuck chapter of the ARS but have also visited the Whidbey Island chapter
4. No official activity other than attend meetings and outings with the chapter
5. (1) Member and one time president of the Boeing Employees Garden Club-Everett, (2) joined the American Horticultural Society and took their tour of Gardens and Temples of Japan, (3) member and past board member of Western Washington Fruit Research Society
6. No societal honors of any kind from ARS or other societies
7. I am seeking this position to expand my exposure to the rhododendron world and knowledge of rhododendrons, have the impetus to visit other chapters and perhaps be apply my administration capabilities to the society at large.

District Director Alternate

Doug Keough

Living in the small community of Clearview, WA, Doug had the good fortune to have Loyd and Eddie Newcomb as neighbors. Their beautiful gardens and their passion for rhododendrons were infectious, and they invited the Keoughs to join the ARS in 2003. Doug is the current Pilchuck Chapter president, and has also served on Pilchuck's board. Since retiring in 2011, Doug has found more time to dedicate to rhododendron hybridization and propagation. Currently, he and his wife, Donna, are full-time groundskeepers. Their home, Keyhole Gardens, is on five acres with many varieties of Japanese maples, conifers, and hundreds of varieties of rhododendrons. Keyhole Gardens was featured on the private garden tour during the 2009 ARS convention in Everett, WA.

DISTRICT 7

District Director

Marvin Fisher

Marvin Fisher has been a member of the Long Island Chapter of the American Rhododendron Society for over 6 years. He has served as a member of the chapter's executive board and is currently president of the chapter. He is very active in the chapter, attending all meetings and actively working to support activities, such as the flower shows, plant sales, and various social events the chapter sponsors. Marvin, along with his wife Linda, was a member of the 2010

Convention Planning Committee and, along with Linda, has attended most annual conventions of the past several years and many regional conferences. He is an associate member of the Tappan Zee, Princeton and Eugene chapters. Currently, he and Linda are co-chairs of the ARS program library. As the current District Director for District 7, he, along with Linda, attend many meetings of the chapters in the district.

Marvin holds a Masters Degree in Administration and Supervision and has an extensive background, spanning two decades, as an administrator and supervisor in the New York City school system. Prior to becoming an administrator, he was a teacher of Technology Education for 20 years.

District Director Alternate

Marianne Feller

Marianne Feller is a former Human Resources Consultant, who was employed by a major Manhattan insurance company, and is currently the Court Clerk in the Village of Old Field, where she resides with her spouse, Bruce. When not conducting the business of the Court, Marianne can be found alongside Bruce in the garden at Two Grey Achers. She functions as the Under Gardener, with specifically assigned tasks. Marianne can weed with the best of them—thousands of weeds a day come under her mighty tug; and pruning of selected plant material—never rhododendron! Her love of the outdoors makes light work of these gardening chores. Active in the New York Chapter for more than 25 years, Marianne is the Membership Chair, serves on the Board of Directors, and shares responsibility with Bruce for the Early and Main Flower Shows, the annual luncheon and arranging speakers for Chapter meetings. For their many years of service to the Chapter, the Fellers were awarded the Bronze Medal in 2009. In 2010 Marianne and Bruce co-chaired the ARS Convention held on Long Island. Both are also Associate Members of the Cape Cod, Greater Philadelphia, Massachusetts, Mid-Atlantic, Princeton and Tappan Zee Chapters. In addition, they are active in the Azalea Society of America and the American Conifer Society.

DISTRICT 10

District Director

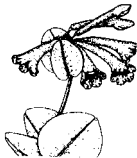
Hale Booth

District Director Alternate

Dr. Jackson McCarter

**THE BOVEES
NURSERY**

Semi-tropical Vireya Rhododendrons
(hardy to +32F)
Species Rhododendrons,
Rock Garden Plants



Mail order Visa & MC
Catalog \$2.00
1737 SW Coronado R
Portland, OR 97219
503-244-9341 or 1-800-435-9250
E-mail bovees@teleport.com
InterNet www.bovees.com

**NEW ZEALAND
RHODODENDRON
ASSOCIATION (INC)**

Subscription: 2012

Individual NZ\$40 • Couple NZ\$45 • Overseas NZ\$55

Membership Includes:

- Annual Bulletin
- Newsletters
- Annual Conference
- Lectures and Garden Visits

For further details contact:

Secretary
Pauline Allen
25 Pomona Street
Gore 9710
Southland
New Zealand

Email: nzrhododendron@extra.co.nz
Website: www.rhododendron.org.nz

It took Jordan just one spring to get loads of blooms.

{ Plus 83 years of organic expertise. }



Plants have been thriving on our organic plant foods ever since we originated them for gardeners in 1929. Holly-tone[®] was the first plant food specifically designed for evergreens such as azaleas, camellias, rhododendron and for over 60 years has remained the leading choice for professional and amateur gardeners. It contains the finest natural ingredients and is safe for people, pets and the environment.

SINCE 1929
Espoma
ORGANIC
A natural in the garden since 1929

Watch our Evergreen video at www.espoma.com/rhodo



2013 ARS Photo Contest

There will be another ARS photo contest, with slightly modified guidelines:

The Contest is open only to ARS members in good standing as of the contest closing date. Judges and their immediate family (spouse, parents, siblings, and children) and household members are not eligible. By participating in the Contest, each entrant fully and unconditionally agrees to and accepts these Official Rules and the decisions of the Judges, which are final and binding in all matters related to the Contest. There are no prizes except bragging rights, and the Editor of *JARS* has the right to publish runner up and winning entries in *JARS* and to put them on the ARS website.

All photos submitted must have been taken between August 1, 2012, to July 31, 2013. Entries must be received by midnight PST, July 31, 2013. All entries should prominently feature either rhododendrons, azaleas and/or vireyas in the composition. Competition categories: 1) Flower, truss or spray; 2) Plant in bloom; 3) Landscape or plants in the wild or in gardens; 4) Foliage; 5) People, Insects, or Animals; and 6) Other, for creative or artistic effects of any kind that involves these plants. This could involve the use of software products like PhotoShop.

Photo Guidelines: 1) The Photo must be in .jpg, .jpeg, or .gif; 2) Images submitted should be sent by email and be of modest size, about 1024 to 1280 pixels in length and 480 to 768 in width, which would correspond to a dpi of at least 300 for a 3 x 5 in (7.6 x 12.7 cm) photo; 3) Cropping of digital images and minor adjustments to exposure and color balance is permitted for entries in all categories. Advanced image editing features available in software products like Photoshop should not be used except for entries in category six; 4) The Photo caption and/or description must not exceed 200 characters in length. Provision of some details about the camera and settings for each entry is also required, and for submissions in category 6, include a brief explanation of how the image was created; 5) The Photo cannot have been submitted previously in a contest of any kind; and 6) The number of entries by any individual per category is restricted to two.

Here is a link on the web to photography guidelines, as we hope this competition can also be an educational tool, especially for our new photographers: <http://photo.tutsplus.com/articles/roundups/100-helpful-photographytutorials-forbeginners-and-professionals/>.



**NORTH
AMERICAN
ROCK GARDEN
SOCIETY**

Benefits of Membership Include:
Beautiful, Colorful Quarterly Bulletin;
Seed Exchange offering Thousands of
Plant Species (including many primulas)
at Low Prices; Spectacular National
Meetings; Opportunity to Meet Gardeners

Send \$30 (on North American
Continent, \$35 all other countries);
Payable in US funds or by Visa/Mastercard
To: North American Rock Garden Society
PO Box 18604, Raleigh, NC 27619-8604
Website: <http://www.nargs.org>

**Sonoma
Horticultural
Nursery & Gardens**

We offer
650 Rhododendron Hybrids
350 Rhododendrons
500 Azalea Hybrids
-plus-

Clematis Dogwoods Magnolias Hostas
7 acres of display gardens
Catalog available on our Web
www.sonomahort.com
-Sorry, we don't ship-
3970 Azalea Avenue
Sebastopol, CA 95472
(707) 823-6832

New Members

AZALEA

Geri Laufer

CAPE COD

Sharon & Andrew Palmer

DANISH

Susan & Carl Gottlieb

Kjell Kvalstein

Hanne Samuelsen

Leif Soegaard

EUREKA

Kathy & Mike Morgan

EXCHANGE

Michael S. Pascoe

GREAT LAKES

Robert Dzurec

Sue & Geoff McCreary

Joseph Nemmer

GREATER PHILADELPHIA

Carol & David Willis

FINNISH

Raini Ekberg

Matti Haaja

Krista Jannari

Kimmo Kilikka

Marjatta Laine

Hilkka Liflander

Hannu Martieala

Marko Torronen

Tuomas Vainonen

Olli Wuokko

MASSACHUSETTS

Karen D. Humphries

Deirdre H. Pirie

MIDDLE ATLANTIC

Joseph Dunkin

Margaret S. Willis

MIDWEST

Tom & Dorothy Borders

Carol Cohen

Angie & John Dik

Timothy & Nancy Downes

Sharon Fredrickson

Eva & Doug Hyndman

Lois Kinlen

Jill & John Peckham

Rine & Al Silinis

Kathy Vargas

Robert & Dawn Weiland

MONTEREY

Roxann Jacobus

MT ARROWSMITH

Irene Brooks

Yvonne Derksen

NANAIMO

Miner Gardens & Woodland

Linda White

NEW YORK

Scott Moravick

NON-CHAPTER

Adrian Bliss

Renne Halsey

NORTH ISLAND

Robin Geary

OZARK

Rita Pellegrino

PILCHUCK

Ellen Bruya

Jo Hoag

Vernon & Donna Kingma

Judy & Tony Love-Eastham

John Marsh

PORTLAND

Lillian and Wolfram Ploetz

PRINCETON

Dimuth De Silva

RSC ATLANTIC REGION

Bob Howard

Diana Smith

RSC TORONTO REGION

Ruth & Earl V. Dunn

SOUTHEASTERN

Annie Higgins

SOUTHWESTERN OREGON

Daniel & Barbara Martin

SWEDISH

Ingrid Agering

TENNESSEE VALLEY

Joe Harris

Nate Phillips

VICTORIA

George Schwartz

In Memoriam

8/20/2012 through 11/26/12

Ferguson, William
Furman, Robert
Gray, George
Older, James C.
Ticknor, Robert L.

The CONIFER SOCIETY welcomes you!

Conifers and rhododendrons are
natural garden companions

- Add year-round color and texture
- Brighten small garden spaces
- Create living sculptures
- Screen views and create focal points

Visit www.conifersociety.org
or mail \$30 annual dues to:

American Conifer Society
175 Charisma Lane
Lewisville, NC 27023-9611

Pacific Island Nursery

Specializing in

Hawai'i Grown Vireya Rhododendron

Richard Marques & Sherla Bertelmann
HCR-1 Box 4641
Kea'au, HI 96749
(808) 966-9225

Website: www.Pacificislandnursery.com
Vireya@pacificislandnursery.com

**Certified mail order nursery
Inter-island and mainland shipping**

Meerkerk Rhododendron Gardens

*Whidbey Island Washington's
peaceful woodland garden...
Welcomes You ~ Daily 9 to 4*

*Mature Rhododendron Arboretum
Hybrid Test Garden
Big Leaf Valley
Retail nursery open in spring*

*Group Tours with reservations
Memberships available
www.meerkerkgardens.org*

Australian

Rhododendron Society Inc.

www.ausrhodo.asn.au

*Overseas members are welcomed -
annual dues of \$A25.00 (single) or \$A35
(member & partner) payable by SA bank draft,
Visa or Mastercard, inclusive of the annual
Journal "The Rhododendron" airmailed.
Admission to Society gardens in Australia.
Extra \$A15 charge for regular newsletters unless
delivered via email.*

Subscription year commences 1st July.

Membership applications to:

THE SECRETARY

*AUSTRALIAN RHODODENDRON
SOCIETY INC.*

*12 Mernda Rd., Olinda
Victoria 3788 Australia*

Attention!

JARS Authors/Photographers

The ARS requests that all authors and photographers who have contributed articles and/or photographs for publication in the *Journal American Rhododendron Society* and the *Quarterly Bulletin* grant the ARS permission to use their work in the *Journal American Rhododendron Society*; on any of the ARS websites; as printed materials individually or in anthologies or similar collections of work published by the ARS, including ARS chapter newsletters and in an online version of the *Journal American Rhododendron Society*; and on compact disks (CDs) or in other digitized formats published by the ARS.

The ARS non-exclusive Copyright Policy allows authors and photographers to retain copyright to their own work and submit their work to other media.

If you, as an author or photographer, have not already granted permission for the ARS to use your work as described above, please request a form from the Assistant Editor:

Sonja Nelson, Assistant Editor
Journal American Rhododendron Society

W.W. NURSERIES

188 VALLEY GREEN DR.
INDIANA, PA 15701-9001

Over 500 varieties of Rhododendrons & Azaleas

Send us our Rhododendron & Azalea cuttings or seeds!!

Full custom propagation facilities

Can't visit? We do Mail order.

We have Cuttings, Liners, 1, 2 or 3 gallon Rhododendrons & Azaleas.
Other Nursery stock available.

www.wwnurseries.com

over 50 years plant production & propagation

E-mail: wwnurseries@hotmail.com
Phone: 724-349-5653

Want to Learn About Lilies?

Join the North American Lily Society!

Membership includes four full color *Quarterly Bulletins* and a color *Yearbook* loaded with information about lilies.



Dues are just \$20 per year for us members.

For more information and to join visit:
www.lilies.org

NALS Executive Secretary,
PO Box W, Bonners Ferry, ID 83805

U. S. POSTAL SERVICE
STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION

Required by 39 U. S. C. 3685

1. Title of Publication: JOURNAL AMERICAN RHODODENDRON SOCIETY.
2. Publication No. 0745-7839.
3. Filing Date: 09/14/2012
4. Issue Frequency: Quarterly.
5. Number of Issues Published Annually: Four.
6. Annual Subscription Price: \$40.
7. Complete Mailing Address of Office of Publication: PO Box 525, Niagara Falls, NY 14304-0525.
8. Complete Mailing Address of Headquarters: P.O. Box 525, Niagara Falls, NY 14304-0525.
9. Full Names and Complete Mailing Addresses of Publisher, Editor and Managing Editor:
Publisher: The American Rhododendron Society, P.O. Box 525, Niagara Falls, NY 14304-0525
10. Owner: The American Rhododendron Society, 1711 Cudaback Ave , Niagara Falls, NY 14301.
11. Known Bondholders, Mortgagees, and Other Security Holders Owning or Holding 1 Percent or More of Total Amount of Bonds, Mortgages, or Other Securities: None.
12. Tax Status: Has Not Changed During Preceding 12 Months.
13. Publication Title: JOURNAL AMERICAN RHODODENDRON SOCIETY.
14. Issue Date for Circulation Data Below: 1/15/13.
15. Extent and Nature of Circulation. Total Number of Copies (a) Average 3,800 Copies Each Issue During Preceding 12 Months and was 3,800 for Issue Nearest to Filing Date. Paid and/or Requested Circulation, (b1) Sales Through Dealers and Carriers, Street Vendors, and Counter Sales : None, (b2) Paid or Requested Mail Subscriptions Averaged 2,689 Each Issue During Preceding 12 Months and was 2,689 for Issue Nearest to Filing Date, (c) Total Paid and/or Requested Circulation, Same as Paid Circulation, (d) Free Distribution by Mail: Average 75 Copies Each Issue During the Preceding 12 Months and 75 Copies for the Issue Nearest the Filing Date, (e) Free Distribution Outside the Mail: None, (f) Total Free Distribution, 75 Copies Each Issue During the Preceding 12 Months and 75 Copies for the Issue Nearest the Filing Date, (g) Total Distribution Average 3,800 Copies Each Issue During the Preceding 12 Months and 3,800 Copies for Issue Nearest to Filing Date, (h1) Office Use, Leftover, Spoiled Averaged 200 Copies Each Issue During Preceding 12 Months and 200 Copies Nearest to Filing Date, (h2) Returns from News Agents: Not Applicable, (i) Total Average Number Copies Each Issue During Preceding 12 Months: 3,800. Actual Number of Copies of Single Issue Published Nearest to Filing Date: 3,800. Percent Paid and/or Requested Circulation, 98% of Average Number Copies Each Issue During Preceding 12 Months and 98% of Actual Number Copies of Single Issue.
16. Publication of Statement of Ownership, Publication Required. Will be Printed in the Winter 2013 issue of this Publication.
17. I certify that all information furnished on this form is true and complete (signed) Laura Grant, Executive Director.

Errata: Fall 2012 issue, p. 203: “the subgenus *Rhododendron* (within the species *Rhododendron*)” should be “the subgenus *Rhododendron* (within the genus *Rhododendron*).”

Upside-side-down pages: Several copies of the Fall 2012 JARS issue mailed to members had four up-side-down pages—a collating problem. If you received one of these copies and wish it replaced, e-mail Sonja Nelson to receive a correctly collated copy.

PUBLICATIONLIST

Remember to support your Rhododendron Society. One of the ways you can do this is to buy your books from us! You get to learn and we get to continue to promote our beloved flower

Book	Retail	Member
<i>American Azaleas</i> , Towe	\$29.95	\$25.46
<i>Complete Wit and Wisdom of Norman Todd</i> , The Todd	\$12.00	\$12.00
<i>Daphnes, A Practical Guide</i> , White, hardcover	\$34.95	\$29.71
<i>Dogwoods</i> , Cappiello & Shadow, hardcover	\$39.95	\$33.96
<i>Gardening with Hardy Heathers</i> , Small & Wulff	\$39.95	\$33.96
<i>Greer's Guidebook To Available Rhododendrons</i> Greer, Third Edition, Softbound	\$19.95	\$ 9.98 SPECIAL
<i>Hardy Rhododendron Species</i> , Cullen	\$49.95	\$42.46
<i>Hybrids and Hybridizers, Rhododendrons and Azaleas for Eastern North America</i> , Edited by Philip A. Livingston and Franklin H. West	\$10.00	\$10.00
<i>In Praise of Dahlias</i> , DVD, Mendocino Coast Films	\$25.00	\$25.00
<i>Kalmia: Mountain Laurel and Related Species</i> , Jaynes	\$34.95	\$29.71
<i>Pacific Coast Rhododendron Story</i> , softbound	\$29.95	\$14.98 SPECIAL
hardbound	\$39.95	\$33.96
<i>Passion for Rhododendrons, A</i> , DVD Mendocino Coast Films	\$25.00	\$25.00
<i>Pocket Guide to Rhododendron Species</i> J.F.J. McQuire & M.L.A. Robinson	\$135.00	\$124.95
<i>Rhododendron Handbook, The</i> , RHS 1998		\$50.00
<i>Rhododendron Hybrids</i> (Second Edition), hardcover Salley & Greer	\$59.95	\$47.95
<i>Rhododendron Hybrids on CD</i> , (Third Edition), Salley & Greer	\$34.95	\$26.21 SPECIAL
<i>Rhododendron Species</i> , Vol. IV, Davidian	\$54.95	\$25.00 SPECIAL
<i>Rhododendrons in the Landscape</i> , Nelson	\$29.95	\$15.00 SPECIAL
<i>Rhododendrons of the World</i> , Leach (SPECIAL)		\$100.00
<i>Rhododendrons & Azaleas: A Colour Guide</i> , K. Cox	\$65.00	\$55.25
<i>Seeds of Adventure, In Search of Plants</i> , Cox & Hutchison	\$75.00	\$63.75
<i>Sikkim and the World of Rhododendrons</i> , Pradan	\$90.00	\$85.00
<i>Success with Rhododendrons and Azaleas</i> , Reiley,	\$24.95	\$21.21

>

Some copies of the *Quarterly Bulletin ARS* from 1962 through 1981 are still in stock.

<i>25 Year Index to ARS Publications</i> (1947-70)	\$4.00
<i>10 Year Index to ARS Publications</i> (1971-80)	\$4.00
<i>10 Year Index to ARS Publications</i> (1981-90)	\$5.00
<i>10 Year Index to ARS Publications</i> (1991-2000)	\$5.00
<i>Journal ARS</i> , Back Issues (if available)	
To U.S. and Canada	\$ 10.00
To all other countries	\$12.00
Commemorative Rhododendron Prints (set of 4)	\$75.00

Above book prices are in \$US.

Prices for books do not include shipping costs.

ADVERTISING RATES

	SIZE	1 TIME	4 TIMES
1"	2-1/4"x1"	\$20.00	\$72.00
A	2-1/4"x3"	\$50.00	\$180.00
B	4-3/4"x3"	\$80.00	\$288.00
Full Page	7-1/4"x9-1/2"	\$325.00	\$1170.00

Color rates quoted upon request.

Above prices are in \$US.

DEADLINE FOR ADVERTISEMENTS:
FEB. 15, MAY 15, AUG. 15, NOV. 15

Send copy or inquiry to:
Sonja Nelson, Assistant Editor
*Journal American Rhododendron
Society*

WRITERS, PHOTOGRAPHERS, AND RESEARCHERS GUIDELINES

Writers, Photographers, and Researchers Guidelines are available for the *Journal American Rhododendron Society*.

GREER GARDENS

Rhododendrons
Azaleas
Japanese Maples
Conifers
Trees & Shrubs

541-686-8266

Order number 800 548-0111
1280 Goodpasture Island Rd
Eugene, Oregon 97401-1794

OPEN ALL YEAR
Visit our display garden

Famous for the Rare and Unusual
www.greergardens.com

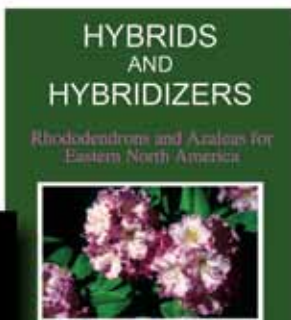
Rhododendron 'Hotei'

We ship everywhere!

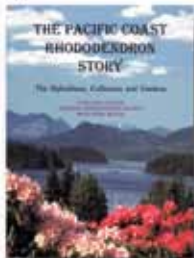
Call for Our Color Catalog
Over 4500 different plants

See the expanded ARS book sales department

*Just found! Copies
of this rare
interesting book.
Reg. \$30.00
now \$10.00* →



*The Pacific Coast
Rhododendron Story*
50% off
Was \$29.95 now \$14.98

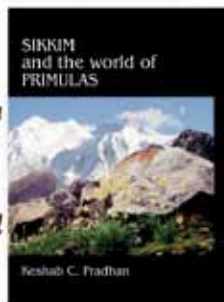
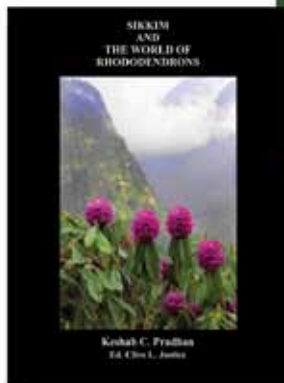


*Brand new book
just out from the
Victoria
Rhododendron
Society* - \$12.00



*New!
limited
circulation
292 pages
full color
price to be
announced*

*Now Available
in soft cover
Only \$45.00*



See inside the back cover of this Journal for ordering information