VANCOUVER Rhododendron SOCIETY

NEWSLETTER

October General Meeting:
Thursday Oct. 20, 7:30 p.m.
Vandusen Botanical Garden

Lecture Program:
Dr Ned Brockenbrough
'A Hybridizer's Odyssey'

PlantSales
Les Clay, Harold Fearing

THE AMERICAN RHODODENDRON SOCIETY
GENUS RHODODENDRON HONORE HABERE
MEMBERS WORLDWIDE

Vancouver Chapter

VRS Website: www.rhodo.citymax.com

'A Hybridizer's Odyssey'

Our speaker the evening of October 20th will be Dr Ned Brockenbrough, from Bellevue, Washington. Ned's career has been as a surgeon. Starting more or less in the middle of this career, he has been Attending Surgeon at the University of Washington Hospital, Seattle, Founder and Director of the Vascular Clinic at the Harborview Medical Center, Founder and Director of the Vascular Laboratory at the Harborview Medical Center, Chief of Surgery at Northwest Hospital, Seattle, and Chief of Staff at Northwest Hospital, though he did not hold all these positions at the same time. He has received numerous medical honours and awards, but what is really important is the fact that he has been President of the Seattle Rhododendron Society, ARS National Awards Chairman, and President of the ARS. He is a holder of the ARS Silver Medal.


R. 'Nancy Evans', photo by Eleanor Philp, ARS

From this point I will let him tell his own story:
"I am originally from Maryland, having come to Seattle to finish my surgical training. Upon completion of my residency, I remained on the faculty of the University of Washington for a few years. In 1964 I bought a small house on Hunts Point, a town on Lake Washington that had been started as a summer colony for Seattle residents. The house had been upgraded from a rather rustic cottage to the point of being livable the year round. But I was more interested in the one acre of land that surrounded it. The previous owner had started a few rhododendrons back in the '30's, and was an early member of the Seattle Chapter of the American Rhododendron Society. His wife had died, and when he moved into an apartment he left many of the furnishings and books behind, including books on rhododendrons. I spent the first winter resurfacing much of the house's interior, and during late evenings I would read these books and journals. Like most things, the more you learn about a subject the more interesting it becomes! So I joined the Seattle Rhododendron Society in the spring of 1965 and started to go to the meetings, at one of which I met, among others, Don McClure, who was to become my future father-in-law. About that time, Ed Simons became Chapter President and asked me to be program chairman. Ed was a surgeon and I knew him professionally, but I knew little or nothing about how to obtain speakers, and enlisted Don to help me in this regard, since he was one of the founding members of the SRS and knew his way around the plant world. But he helped with more than program speakers. It was through Don that I met Jean. Without going into details here, I married her in 1968. So here we are, 37 years later: same couple, same land, upgraded home and garden, five grown children, all with families of their own."

See **'A Hybridizer's Odyssey'** on Page 2

"Back down to the two of us now, a couple of years ago, while in Nepal looking at plants, I met a young man working in a hotel, the only son of an illiterate farming family from the hills, trying to earn enough money to go to school. He could speak a little English but didn't know what a keyboard was, much less a computer. Jean and I somehow managed to arrange for him to come to the US. We gave him a place to stay and sent him to school. Salik earned his associate degree (with honors) at Bellevue Community College this year. He has decided that he wants a four-year university degree, so he is working for the City of Kirkland as a computer specialist in web design while applying to the university.

So there has been, as so often is the case, a direct connection between our plant enthusiasm and an enriched human experience, a kind of rhododendron odyssey, as it were 'A Hybridizer's Odyssey'."

The kind of person that emerges here is someone we will all want to meet, and someone whose fuller story, 'A Hybridizer's Odyssey', we will want to hear.

By Joe Ronsley

British Govenment's Department for Environment Food and Rural Affairs (DEFRA) and Kew

The Royal Botanic Gardens at Kew, considered to be a World Heritage Site contains one of the most expansive collections of plants from our world. Kew, in association with DEFRA, commissioned Mary Reynolds to create a new showcase garden for the summer 'Go Wild' Festival, with its design based on principles of enhancing biodiversity. The garden demonstrates the subtle beauty of our native plants. They support a huge diversity of life and are perfect for the lazy gardener as they tend to look after themselves. The purpose of the garden is to promote awareness of the importance of biodiversity to a healthy environment. This is achieved by combining indigenous plants and sensitive landscaping. All plants in the garden are native or naturalised British species and the materials used are all British sourced.

World Heritage Sites have been identified by the United Nations Educational, Scientific and Cultural Organisation (UNESCO) as being of international importance for the conservation of cultural and natural heritage. There are currently 721 such sites in the world, including the Great Wall of China and the Pyramids at Giza.

The Royal Botanic Gardens, Kew is a rich historical landscape which has developed through centuries of scientific and cultural evolution. The Gardens are currently recognized as a global centre of excellence in the study of plant diversity and economic botany. They hold the world's largest documented living and preserved plant and fungal collections, and have played a leading role in plant collection and study since the late 18th century.

The site is an internationally important historic garden landscape illustrating key periods in garden design from the 18th, 19th and 20th centuries, including work by William Kent, Charles Bridgeman, William Chambers and 'Capability' Brown. The Gardens also contain a large number of architecturally important buildings, including the 17th century Kew Palace and two of the world's finest surviving examples of Victorian glasshouse technology; the Palm House and Temperate House.

Examples of Kew's architecture include King William's Temple (photo above) built in 1837 by Sir Jeffry Wyatville to complement Chambers' Temple of Victory (no longer standing), this stone building with its Tuscan porticos contains iron plaques commemorating British military victories from Minden to Waterloo.

The Temple of Aeolus in the Woodland Garden (photo right). This Grade II listed building was designed and constructed by Sir William Chambers between 1760 and 1763. It was rebuilt by Decimus Burton in 1845 on an artificial mound, known as Cumberland Mount, formed from spoil dug during the creation of the Lake. Aeolus was the mythical king of storms and winds, inventor of sails and a great astronomer. The temple once had a seat which revolved on a pivot to provide a panoramic view with very little effort.

Chokushi-mon (photo left). The gateway of the Imperial Messenger, is a four-fifths size replica of the Karmon of Nishi Hongan-ji in Kyoto, the ancient imperial capital of Japan.

See "Kew Gardens" Page 3

Kew Gardens represents over 250 years of historical landscape (map courtesy of the Royal Botanic Garden). The site houses over 40 listed buildings and other structures including the Palm House, Temperate House, Orangery and Pagoda. There are also two ancient monuments, Queen Charlotte's Cottage and Kew Palace, managed by Historic Royal Palaces. The Royal Botanic Gardens, Kew, is an executive Non-Departmental Public Body operating under a Board of Trustees established by the National Heritage Act in 1983 and sponsored by DEFRA. Grant-in-aid from DEFRA amounts to £21 million in 2003/04 including a capital allocation of over £3 million. Visit the garden online at www.kew.org

Photo above, Kew Palm House. Article excerpts courtesy of the British Government's Department for Environment Food and Rural Affairs. Website: defra.gov.uk
Additonal information and photos courtesy of the Royal Botanic Garden, Kew. Compiled and edited by Todd and Shannon

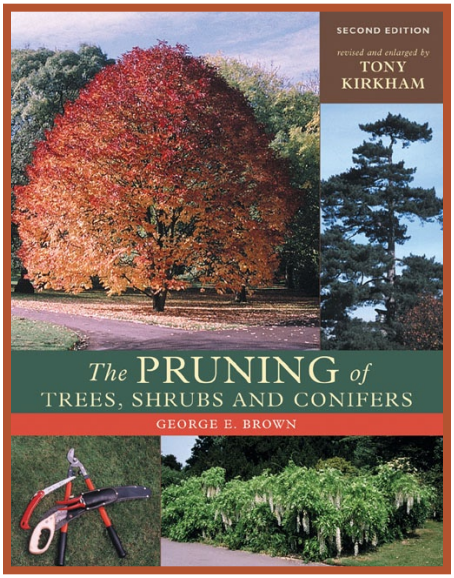
Tony Kirkham Updates a Classic Pruning Book

During an interview with Timber Press Tony Kirkham discussed his work to update a pruning bible written by George E. Brown.

Timber Press : "How does this book differ from the previous one?" Pruning of Trees and Shrubs by George E. Brown Updated

Tony Kirkham: "I have provided 53 new colour slides to illustrate modern pruning techniques and these are now spread through the text instead of left as a lump of black-and-white in the middle. I have changed chapters 1, 2, 3 & 4, bringing them right up to date with current thinking-for example, target pruning in relation to the branch bark ridge and the branch collar. I discuss why we don't use wound sealants or treat cavities."

Tony continues "There is a new section on planning and TPO's (tree preservation orders), where there was no mention of these before. I have expanded the section in chapter 4 on pruning for wildlife-mulching instead of pruning to retain dignity, why we must leave standing dead wood and the importance of bats, etc. Chapter 5 on pests and diseases has been modified with several new diseases affected by or controlled by pruning. The main A-to-Z has been expanded with several new genera and many new species. The nomenclature is right up to date according to Plant Finder 2002/03, the latest Hillier Manual of Trees & Shrubs and Index Kewensis. I have dropped all the authorities to make it easier reading. There are more common names included in the index and a separate appendix with an updated common names/ botanical names cross-reference. The glossary is ten times the size of the old one with many modern terms used today in the field of arboriculture. I have now been at Kew for 25 years, I love what I do and enjoy going into work and getting paid for what I love. I still love to see trees grow and in particular to see them growing naturally and freely in their habitats in the wild." Tony Kirkham



The Pruning of Trees, Shrubs and Conifers (cover photo right, second edition, revised and enlarged by Tony Kirkham and George E. Brown ©2004, Photo and interview excepts courtesy of Timber Press.
Website: www.timberpress.com

2005 Rhododendron of the Year Awards Plants Suitable for the Pacific Northwest

Elepidote Rhododendron: 'Horizon Monarch'
(R. 'Nancy Evans' x R. 'Point Defiance')

Flower greenish-yellow with a small, vivid red flare, openly funnel-shaped, wavy edged, 4" across. Held in large ball-shaped truss of 5-8 flowers. Blooms midseason. Leaves elliptic, apiculate apex, cuneate base, concave, 6-3/4" long, olive green. Upright, spreading plant habit. Grows to a typical height of 6 ft. in 10 yrs. Cold hardy to 5°F (-15°C). Hybridized by Brockenbrough.
Photo by Steve Henning

Lepidote Rhododendron: 'Ramapo'
(R. fastigiatum x R. minus var. minus 'Carolinianum Group')

Flower pinkish violet, held in small clusters. Very floriferous plant. Blooms early midseason. Leaves bluish-green, elliptic, very aromatic. Dense and very compact habit. Grows well in sun or partial shade, being more compact in sun. Reaches a height of 2 ft. in 10 years. Plant is cold hardy to -25°F (-32°C). Hybridized by Nearing. Photo by Harold E. Greer
Photos and text courtesy of the American Rhododendron Society

Bronze Medal Award Nominating Committee

Lothar Mischke, Chair of the Nominations Committee, is calling on all members to nominate those people in our club who have given of themselves to improve our Society. The Awards Program is a way to recognize the contributions of members through award of a bronze medal. Send your nominations to vice-president Lothar Mischke at: cindymischke@aol.com

Have an Opinion?

Letters to the Editor can be sent to Todd or Shannon Major at stmajor@shaw.ca. All letters must be sent in Microsoft Word, Notepad, Wordpad or in the body of your email to us.

Beauty Is The Beast: How Rhododendron Bests The Mighty Oak (Abstract)

Rhododendron are lovely ornamentals that enhance many landscapes but in the hardwood forests of southern Appalachia and England, the showy evergreen shrubs are pests that suppress new growth of hemlocks, oaks, and other valuable trees.

Now researchers have determined how Rhododendron maximum rob the competition of nutrients and water - and it's not merely by shading out seedlings and beating them to underground resources. Researchers from the U.S. Forest Service Coweeta Hydrologic Lab in North Carolina and from Virginia Tech will present findings at the Ecological Society of America (ESA) annual meeting (Aug. 10-14, Albuquerque, N.M.) that demonstrate that Rhododendron actually make it impossible for some hardwoods to absorb nutrients. Many trees and shrubs have established a symbiotic relationship with mycorrhizal fungi, which enhances the plants' ability to absorb water and nutrients, explains Erik Nilsen, professor of ecology at Virginia Tech. "In fact, hemlocks and oaks are dependent on mycorrhizae."

Rhododendron precludes the fungus from forming an association with the mycorrhizae for some tree species, particularly hemlocks, he explains. This affect, in combination with the limitation of resources results in a situation that the canopy tree seedlings can't lick.

Researchers: B.D. Clinton of the U.S. Forest Service, Nilsen, and Orson K. Miller Jr., Virginia Tech biology professor, along with Tom Lei, post doctoral student, and Virginia Tech students Shawn Semones and John Walker, have been conducting the research for the last 18 months.
For additional information, contact:
Dr. Barry Clinton at bclinton@sparc.ecology.uga.edu or phone (704)524-2128 ext. 124.
Dr. Erik Nilsen at (703) 306-1421.
Dr. Orson Miller (540)231-6765 or 231-5165.

Hybridization Among Sympatric Species of Rhododendron (Ericaceae) in Turkey: morphological and molecular evidence (Abstract)

Milne et al. 86 (12): 1776.

Rhododendron (Ericaceae) is a large genus in which barriers to hybridization are especially weak, but many species are maintained in sympatry. Hybridization among four species of Rhododendron subsect. Pontica, which occur in sympatry in Turkey, was investigated. Material of *R. ponticum, R. smirnovii, R. ungernii, and R. caucasicum* and their putative hybrids was collected from the wild. Based on morphology, chloroplast DNA and nuclear ribosomal DNA restriction fragment length polymorphism (RFLP) profiles, each accession was identified as a species or hybrid combination. Five of the six possible hybrid combinations among the four species were detected. *Rhododendron ponticum x R. smirnovii* was represented by a single individual and *R. caucasicum x R. smirnovii* by one small group of hybrid plants. The combinations *R. ponticum x R. ungernii and R. ungernii x R. smirnovii* showed evidence of frequent backcrossing, while *R. ponticum x R. caucasicum* appeared unusual in that an intermediate hybrid type was abundant, whereas hybrids with phenotypes approaching either parent were rare. Possible explanations of this latter situation are discussed. The results suggest that natural hybridization among Rhododendron species is common and that ecological factors are important in maintaining integrity when species occur in sympatry.

Researchers: Richard I. Milne, Richard J. Abbott, Kirsten Wolff and David F. Chamberlain, School of Environmental and Evolutionary Biology, University of St Andrews, St Andrews, Fife KY16 9TH, UK; and 2 Royal Botanic Garden, Inverleith Row, Edinburgh EH20 3LR, UK

This abstract / article has been cited by other articles:

Molecular Genetic Evidence for Interspecific Hybridization Among Endemic Hispaniolan Bursera (Burseraceae). American Journal of Botany, June 1, 2004; 91(6): 976 - 984. A. Weeks and B. B. Simpson.

Patterns of Evolution in Western North American Mimulus (Phrymaceae). American Journal Botany, March 1, 2004; 91(3): 474 - 489. P. M. Beardsley, S. E. Schoenig, J. B. Whittall, and R. G. Olmstead

Phylogeography of the Arctic-Alpine Saxifraga Oppositifolia (Saxifragaceae) and Some Related Taxa Based on cpDNA and ITS Sequence Variation. American Journal of Botany, June 1, 2003; 90(6): 931 - 936. R. Holderegger and R. J. Abbott

Molecular Analysis of Plant Migration and Refugia in the Arctic. Science, August 25, 2000; 289(5483): 1343 - 1346. Americaln Journal of Botany. R. J. Abbott, L. C. Smith, R. I. Milne, R. M. M. Crawford, K. Wolff, and J. Balfour

2005 Rhododendron of the Year Awards Plants suitable for the Northwest

Evergreen Azalea: 'Hilda Niblett'

(R. 'Glacier' x R. 'Tama-giku') x R. 'Getsu-toku')

Flower pale tints of strong pink to pale purplish pink, variously marked strong red, throat greenish white spotted deep pink or deep purplish red, broadly funnel-shaped, wavy edged, 3-1/4" across. Blooms early midseason. Leaves elliptic, about 1-1/2" long. Spreading habit. Grows approximately to 3 ft. tall in 10 yrs. Hardy to -5°F (-21°C). Hybridized by Gartrell. Photo by Richard F. Clapp

Deciduous Azalea: 'Nifty Fifty'

(unknown x (R. 'Knap Hill Yellow' x R. 'Klondyke'))

Flower vivid yellow with vivid orange-yellow throat, broadly funnel-shaped, wavy edged, 4-1/2" across. Held in ball-shaped truss with 13 flowers. Blooms early midseason to midseason. Leaves elliptic, broadly acute apex, cuneate base, flat, 2-1/2" to 3-1/2" long, slightly bullate, slightly hairy below, deciduous. Upright, spreading habit. Grows to a height of 3 ft. in 10 yrs. Hardy to -15°F (-26°C). Named for the 50th anniversary of the American Rhododendron Society. Hybridized by Arneson. Photo by Harold E. Greer .

Photos and text courtesy of the American Rhododendron Society

Members asked the Indumentum:
"What's the best way to take rhododendron cuttings?"

Rhododendron propagation is an art and a science. There are rules governing the the science of cuttings but individual innovation makes the process an art form. This fact was well illustrated at the ARS Western Regional Conference that I attended in September. Two professional growers from competing nurseries shared an educational session on cuttings and the techniques they described differed at every single step.

The one thing they had in common, however, was the use of expensive bottom heaters, pumps, sensors and sprinklers in their greenhouses. As a result, I'm sure many audience members left the session wondering if there was a simpler and cheaper way to achieve good results with just a few flats of cuttings.

When I was in Holland last spring, I saw an extremely simple system for propagating rhododendrons from cuttings, at the Esveld Nursery in the town of Boskoop. This nursery has been a family business for generations and now stocks over 10 000 different perennials while maintaining a special interest in rhododendrons. The owner, who spent a year working with Peter Cox in Scotland, described to me how he had tried all of the modern mist system and bottom heating equipment and had not been satisfied with the results. "Recently," he said, "I've gone back to the way my grandfather did cuttings. It works better."

At Esveld, cuttings are taken on August mornings, from plants that are young, healthy, and well watered. Stem tips are selected that are of average size for the plant. Using sharp, clean scissors, the propagators make an angled cut just below a node, to remove 6 to 8 centimeters of stem tip. Then, they whittle a single, very shallow, lengthwise cut along the bottom centimeter of stem to slice away the "bark" and expose some cambium. Next, they remove all but the top 3 or 4 leaves and cut these in half if they are large. Flower buds are removed, but not leaf buds. Finally, the bottom end of the cutting is dipped into a rooting hormone powder (0.5% to 1% auxin) and tapped to remove excess.

The prepared cuttings are stuck, individually, into 5 cm plastic pots which sit inside deep, metal work benches (see photo above right). The pots are filled with dampened, coarse peat moss and they rest on a bed of peat 12 centimeters thick. A pencil is used to make a hole in the centre of the peat in each pot before placing a cutting inside.

On overcast winter days, the greenhouse is illuminated by fluorescent lights. No bottom heat is provided, but the propagation greenhouse is kept year-round at a temperature between 15 and 20 degrees Celsius. Each metal work bench

with its new cuttings is covered with a sheet of 2 mil plastic, sealed around the edges. These "poly tents" (see photo below) are left in place until rooting has occurred. After that, the plastic is opened for 30 minutes every other day, each time being replaced with the underside turned up. The rooted cuttings are watered as needed.

See "**The rhododendrons are not disturbed"** on Page 7

The rhododendrons are not disturbed further until spring when they are potted up into 10 cm wide pots (see photo below). The medium inside these pots is 40% peat, with the remainder being a mixture of clay, coconut fibre, and seaweed fertilizer. (Esveld Nursery does not use chemical fertilizers or pesticides.) The rhododendrons remain in these

pots for the rest of the year. The following spring, some plants are potted up for immediate sale while others are placed in beds, to be eventually sold as large, field grown specimens. These beds, which are located in full sun and contain sand, peat, and mulch.

I use a similar, small-scale system in my garage to produce around 200 rooted cuttings per year. My success rate is over 50%. Each tray of cuttings is covered by a plastic dome (from GardenWorks) and then sealed inside a clear plastic garbage bag. I open them for 10 minutes, twice monthly, and spray the cuttings with a spritzer bottle. Since the garage is unheated, I provide bottom heat in the cold winter months. The photo below shows my cuttings box.

General Procedures for Making Cuttings:

1. Collect cuttings in the morning and use a cooler to keep cuttings turgid until you reach the work area.
2. Always select from vigorus healthy plants.
3. Use clean tools to prevent the spread of disease.
4. Keep track of plant names and origin during collection.
5. Prepare the cutting trays before you collect stock.
6. Sort cuttings according to size and speccies.
7. Cut half of the leaf off for species with large leaves.
8. Cut just below a leaf (node) using one or more of these procedures; angled or cut, vertical inscion or slice off bark to expose cambuim. Cuttings should be 3 to 5 inches long.
9. Poke holes in the medium (50:50 peat/perlite) after it has been moistened. It should be moist but not waterlogged.
10. Dip the cutting's bottom end into #3 rooting hormone and shake off the excess. Some species respond better to a liquid hormone rather than powered form.
11. Place the cutting into the hole in the peat/perlite mix and gently firm the medium around the cutting with your finger. Soil areation is important for rooting.
12. Water in all the cuttings using a fine spray or mist to provide moisture and increase humidity.
13. Apply a "No Damp" solution, to the soil surface, if you are worried about fungus infection.
14. Cover the pots with plastic, provide them with bottom heat (in winter) and adequate light but not full sun. Cuttings need high humidity to survive.
15. If the cuttings are in sealed plastic bags, open them for periodically (daily or weekly) for ventilation. Remove any plant material that is moldy or dead.
16. Inspect regularly for rooting, this can be done by very gently pulling on the tip of the cutting to detect resistance which indiates rooting. Rooting takes at least 6 to 8 weeks or more depending on species.
17. Once rooting occurs gradually expose these rooted cuttings to more and more air over a week.
18. Once rooted, transplant the cuttings into small pots, using a 50:50 peat/perlite mix with a very dilute solution of liquid fertilizer added.
19. Keep the potted cuttings well protected over the winter in a greenhouse or indoors under fluorescent lights.
20. Cuttings that have not rooted should be left, as described above, for as many more months as they take to root. If cuttings take too long, compost them and try again.

Article and photos by Ron Knight