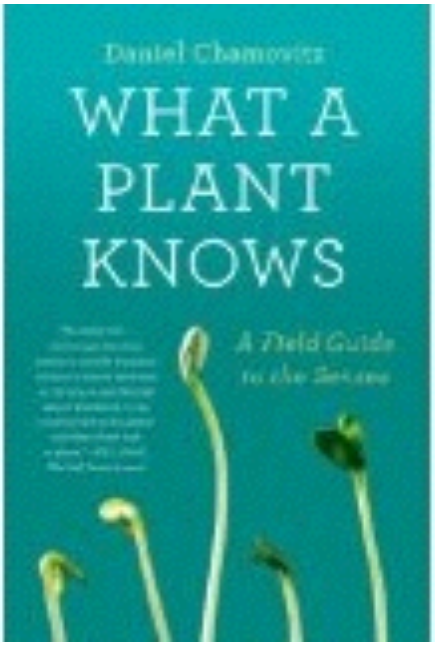
VANCOUVER Rhododendron SOCIETY

OCTOBER, 2014

EDITOR'S NOTES

The wonderful, but very dry past summer has been followed by a very wet Fall, but in my Garden the toll on old established plants of such swings in weather appears to have been minimal, but the effect has fallen disproportionately on newly planted, smaller sized plants despite what I thought was assiduous watering in May through August. Despite some holdouts or "climate change deniers" in the gardening community, my sense is that climate change is now commonly accepted in BC as an unspoken given; much as Evolution. The interesting practical and intellectual questions are now on the good effects and how they can be exploited; the adverse, can be mitigated; and the physiological reasons for such effects.



This issue of the Indumentum indirectly addresses the practical effects in our continuing journey to consider what are now the "Good Doers" or "Best Performers" in our incrementally warming climate with drier summers in the Pacific North West. It addresses the theoretical basis in the Book Review of "What a Plant Knows, a Field Guide to the Senses" by Daniel Chamovitz.

Cultivating Rhododendrons can raise directly and indirectly for us some of the important issues of our time in an immediate, visceral experience. If tending Rhododendrons does not provide answers, it does provide evidence: instead of Ottawa's current science policy of decision-based evidence making, we can have evidence-based decision making.

WHAT A PLANT KNOWS, A Field Guide to the Senses by Daniel Chamovitz, Scientific American/Farrar, Straus and Giroux 2012

What many of us discover as an epiphany is that as our study of Rhododendrons deepens so that we feel more confident in our identification of Rhodies and recognition of their cultural needs, at the same time our understanding of other vascular plants also widens. It is not a case of knowing more and more about less and less; but about areas of interest ever widening as we become increasingly confident in both theory and practice from learning from our own dirty-nailed hands-on experience, the stories of other VRS members and from our fewer but treasured, academics. This "wonder" increases in a righteous, self-feeding cycle.

This short (150 page) book, which costs about $11 from Chapters or Amazon, focuses on the parallels between plant and human senses, and the striking similarity of genes between plants and animals. It is a fast and fascinating read.

Chamovitz starts off by observing that on a genetic level, plants are more complex than many animals and then to illustrate the consequences quickly moves on to note the extension of Barbara McClintock's experiments showing that genes in Indian corn can *transpose* or jump around chromosomes, to explaining how this has proven useful in understanding a potential source of cancer in humans. The author disclaims that plants are just like us, (remember "The Secret Life of Plants" from the early seventies and the apochrophyl stories of our Prince of Wales emoting with his plants), so that playing Mozart to our Rhododendrons or whispering "I love you" will not replace or even supplement fertilizer and watering.

In his first Chapter Chamovitz examines "sight" in plants. "Phototropism" or bending towards light is not governed by photosynthesis, as I had assumed, but as was known as early as 1864, by the bending of young plants about one inch from the tip towards blue light. Think of those bamboo shoots about half a metre long that are wound in tight spires, and sold in Dollar Stores. Darwin (father and son) experimentally showed that the tip of a plant "saw" the light and transferred this information to its midsection to tell it to bend toward the blue light. The author then goes on to explain "photoperiodism" or how different plants measure how much light they take in and when, and how this can be manipulated to make flowers bloom when commercially most profitable. Recent studies show plants measure not the length of the day, but the length of continuous periods of darkness. Growers now exploit this principle to have red light (not blue or green) flash on any leaf of a plant for a few seconds only, during the night, to cause normally fall blooming chrysanthemums to hold their blooms opening to just before Mother's Day.

Since splitting from a common ancestor, plants and animals have followed different courses of evolution. Humans have only three classes of photoreceptors (photoropins for light and shadows; three photopsins for colours, and one cryptochrome to regulate our internal clock); but plants have 11 photoreceptors falling into 5 classes. "So plants vision is much more complex than human sight at the level of perception." Light signals for plants translate into cues for growth; for humans into pictures. Plants and animals each respond to light signals through photoreceptors but they use different proteins with different chemistries. This is an example of the similarities and differences that Chamovitz explores.

This chapter on sight is then followed by fascinating chapters on what a plant "smells", what a plant "feels", what a plant "hears", how a plant knows where it is, and what a plant "remembers". The writing throughout is straight-forward, the explanations are clear, and the subjects are one's close to a Gardner's interest. A Book that is heartily recommended to increase your Wonder.

2015 ARS CONVENTION SIDNEY, BC, CANADA KEYNOTE SPEAKERS

Jim Barlup (USA) has been actively hybridizing rhododendrons since 1975. His former career as a professional photographer provided him with an array of artistic skills that have influenced his colorful palette of hybrids. Among his credits is that he was the official photographer of the Beach Boys first album. As a nurseryman, he acquired the technical skills of plant science. This combination of knowledge has allowed him to become a recognized world-class hybridizer. In 2004 he was awarded the ARS Gold Metal for his outstanding hybrids and his generous sharing of seed, pollen, cuttings, plants and knowledge.

Marc Colombel (France) is from Brittany, France. An ARS member for nearly 30 years, his main interest in Rhododendrons is hybridization. He did his first hybridization in 1985 and by the end of 2013 he had made 900 different crosses. He published the book "*Rhododendrons: Mode d'emploi*" and created the Société bretonne du Rhododendron of which he was the President for 14 years. He has written about 200 articles for the bulletins of the Society. He created his first web site in 1996. The goal of this web site (www.rhododendron.fr) is to share knowledge and to educate visitors with the help of files.

Kenneth Cox (Scotland) was born in 1964 into a family of renowned plantsmen, Kenneth Cox is grandson of plant-hunter, writer and nurseryman Euan Cox and son of Peter Cox, VMH. The three generations were and are considered the world's leading experts on rhododendrons. Kenneth, himself a nurseryman and author of numerous books on rhododendrons, has carved out his particular niche in the world of plant-hunting in leading 9 expeditions to South and South-East Tibet and Arunachal Pradesh, India, from1995. Kenneth is managing director of the family firm, Glendoick Gardens Ltd in Scotland, a garden centre and mail order nursery specialising in Rhododendrons, Azaleas, and Ericaceous plants,

Harold Greer (USA) along with his wife, Nancy, owned Greer Gardens in Eugene, Oregon. He is past president of the American Rhododendron Society, and served with the board of directors for over 25 years. He also holds the title of being the youngest person to ever serve as president. He is recipient of the American Rhododendron Society Gold Medal, plus two Bronze medals and is recognized internationally as a rhododendron expert. Harold has contributed enormously to the world of rhododendrons through his books, plants, service and dedication. He is an experienced photographer and his pictures have been published in many books and publications including the cover of the Smithsonian magazine.

Guan Kaiyun (China) is now professor and deputy director of Xinjiang Institute of Ecology and Geography and director of Turpan Eremophyte Botanic Garden, the Chinese Academy of Sciences (CAS). He is also the vice- secretary general of the International Association of Botanic Gardens, and vice-president of Rhododendron Society of China. He has published 135 scientific research papers and 23 books or monographs, holds ten patents and registered twenty-seven new plant cultivars. He is author or co-author (translator) of several rhododendron books such as "Rhododendrons of China" (3 volumes) and "The Book of Rhododendrons".

Lionel de Rothschild (England) is chairman of Exbury Gardens, the world-famous rhododendron gardens situated in the New Forest, some 90 miles southwest of London. He is the grandson and namesake of the man who created these gardens in the 1920s and '30s, one of the most famous rhododendron enthusiasts ever. Lionel grew up at Exbury and is profoundly knowledgeable about the gardens: he has photographed and written on them, has co- authored and co-photographed a book on all the Rothschild gardens and has written about nineteenth-century rhododendron hybrids in the UK.

Hartwig Schepker (Germany) is the Scientific Director of the Botanic Garden and Rhododendron-Park, Bremen, home to one of the largest Rhododendron collections in the world, including hardy and non-hardy species and hybrids. He is the Secretary of the German Rhododendron Society and co-editor of the society's publication "Rhododendron und Immergrüne". Hartwig has been on several rhododendron trips in South East Asia and North America, including four journeys to Arunachal Pradesh. His main objective is to promote the important ecological functions of Rhododendrons in their native habitats.

Plus two special presentations by Laura Grant and Dr. Ben Hall.

Full biographies and photos available at www.2015rhodo.ca

The Schedule for the up-coming ARS Annual Convention at Sidney BC has now been released. Online Registration will open sometime in Mid November. See "2015rhodo.ca" site..

WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
6-May-2015	7-May-2015	8-May-2015	9-May-2015	10-May-2015
	Breakfast	Breakfast	Breakfast	
	6:30 - 8:00	6:30 - 8:00	6:30 - 8:00	
	Hospitality Room open all day, every day			
	Registration	Registration	Registration	
	8 AM - 6 PM	8 AM - 6 PM	8 AM - 6 PM	
BOARD	Plant Sale	Plant Sale	Plant Sale	Plant Sale
MEETING	8 AM - 6 PM	8 AM - 6 PM	8 AM - 6 PM	9 AM - noon
9 AM - 4 PM				
(Hospitality Room)	**WELCOME**	**WELCOME**	**WELCOME**	Open
	8-8:15 AM	8-8:15 AM	8-8:15 AM	Gardens
Registration	**Laura Grant**	**All- Day**	**Guan Kaiyun**	
Setup	70th Anniversary	**Garden Tours**	China	
9 AM - noon	8:15 - 8:35 AM	with lunch	8:15 - 9:00 AM	
		8:15 AM		
	Jim Barlup		**Harold Greer**	
	All in the Family	**Garden Tours**	The West, Hybrids &	
Plant Sale Setup	8:45 - 9:30 AM	**Morning**	Hybridizers	
9 AM - noon		**9:00 AM**	9:00 - 9:45 AM	
	Break (15min)			
	Marc Colombel		**Garden Tours**	
	Propagation		with lunch	
Plant Sale	9:50 - 10:35 AM		10:00 AM	
&				
Registration	**Garden Tours**			
Noon - 6 PM	with lunch	**1:00 PM**		
	11:00 AM			
Open Gardens				
	4:00 PM	4:00 PM	4:00 PM	
4:30 PM	*Dr. Ben Hall*			
	Rhodo DNA	***Rhodo RoundTable***	***Rhodo RoundTable***	
5:30 PM	*Executive Director's*	***Meet & Greet***	***Meet & Greet***	
	Forum	Hospitality Room	Hospitality Room	
	6:30 PM Social Hour	6 PM Social Hour	6 PM Social Hour	
	7 PM Dinner	**7 PM Dinner**	**7 PM Dinner**	
	8:30 Speaker	8:30 Speaker	8:30 Speaker	
	Kenneth Cox	**Hartwig Schepker**	**Lionel de Rothschild**	
			Sights & Sounds Surprise!	

ALL-DAY GARDEN TOURS - up-island

October's Bouquet

Douglas Justice presented this month's bouquet which with two exceptions have been chosen from the UBC Carolinian Garden and are native to the eastern North American Carolinian forest.

1. **Hamamelis virginiana** (Common witch hazel). An erect shrub to 3 metres tall with oval leaves turning yellow in autumn when it also bears small bright-yellow, spider-shaped flowers which are fragrant.

2. **Celastrus scandens** (American bittersweet) a woody, deciduous climber (to 10 metres) with oval to ovate, toothed, mid-green leaves, about 10 cm long. Bears small, yellow-green flowers in summer in terminal panicles followed by orange-yellow fruit with red seeds.

The Oriental form (Celastrus orbiculatus) grows even longer to 14 metres long but has become an invasive weed in some parts of North America.

3. **Callicarpa bodinieri 'Profusion'** (Beautiberry) Bushy upright deciduous shrub with bronze young leaves to 18 cm. long. with pale pink flowers in mid-summer which mature into dark violet fruit in the fall. Doug noted that it must be pruned properly for otherwise its branches fall over and root at tips. Callicarpus japonica has, in Doug's estimation, better

foliage of smaller light to mid-green leaves turning apricot-colour in the fall, small pink to white flowers in axillary comes in midsummer, followed by purple fruit in the fall.

4. **Parrotia persica** (Persian Ironwood) A slow growing decidous tree or large shrub usually to 5 metres tall which provides an all-season display climaxing in the fall when leaves turn from golden-yellow to orange, rosy pink and finally red purple. The smooth gray, flaking bark is attractive in winter. It is reputed to be relatively drought tolerant once established.



5. **Staphylea trifolia** (American Bladdernut) Dougas Justice noted that this was recently introduced into cultivation here. It is an upright suckering shrub with smooth striped bark and pinnate leaves with three leaflets, softly hairy underneath. In spring it has many bell-shaped, greenish-white flowers in pendent panicles followed by pale-green fruit. it is not invasive, unlike the European bladdernut (S. pinnata).



6.**Magnolia virginiana** (Swamp magnolia or Sweet bay) in Vancouver a deciduous shrub or small tree but in its native range (swamps in eastern U.S.)can grow to 15 metres tall. M. virginiana has bright green leaves to 15 cm long, glaucous underneath. From early summer to early autumn (and even almost throughout the year) produces almost spherical, deep-cup-shaped, strongly lemon and rose scented flowers to 6 cm across, with creamy white petals fading to yellow with age. Douglas said that it is more fragrant in bud.


7. **Aronia melanocarpa** (Black chokecherry) Upright shrub (2 metres by 3 m) with obovate, hairless, glossy mid-green leaves, which turn dark purple in autumn. Corymbs of white, occasionally pink-tinged flowers to 1 inch are borne in late spring and early summer and are followed by black berries.. May sucker freely.

8. **Halesia carolina** (Carolina silverbell) Spreading tree or shrub (up to 8 m x 10 m) . Axillary clusters of 2 to 6 pendant, bell-shaped flowers to 2 cm long, hang in profusion from the branches in late spring just before 4 inch long leaves emerge. They are followed by 4-winged green fruit.with ovate to elliptic, minutely toothed, mid-green leaves. The fruit fades to brown and then to fray and hangs on in Vancouver most of winter. Doug observed that it blooms well in alternate years and thrives in woodland

conditions without heat at UBC. Prune to single stem when young to train as tree. Good overhead planting for Rhododendrons.

9. **Ilex verticillata** (Black alder, Winterberry) suckering shrub or sometimes a small tree (5 m). Leaves are obovate or lance-shaped, toothed bright green (4-10 cm) long, with sharp pointed tips. In mid-spring produces white flowers

810. **Acer spicatum** (Mountain Maple) Deciduous tree or shrub (to 8m) upright shoots, red-tinged when young, and ovate, shallowly 3-lobed toothed, bright green leaves to 13 cm long, turning orange, purple, and red in autumn.

11. **Caprinus carolinia ssp virginiana** (a subspecies of the American Hornbeam) a small (10 - 15 m), sometimes shrubby, tree. Blue-green leaves have a corrugated texture (8-12 x 4-6 cm). Trunk is often fluted and crooked. Bark smooth and greenish grey.

12. **Franklinia alatamaba** Upright tree (to 5 m) bearing alternate obovate-oblong sparsely toothed, glossy mid to dark green leaves. Shallowly cup-shaped fragrant white flowers (to 8 cm across) with yellow stamens appear in October and November in Vancouver. AT UBC it responds well to dry winters, and was heavily budded up this year It is a member of the Camellia family, but Franklinia alatamaba is the only member of its genus (monotypic) and is thought to be extinct in the wild. It was endemic to Georgia in the south east corner of the Carolinian forest.

GOOD DOERS OR PROVEN PERFORMERS, Continuation of a Journey led this Month by Karen Shuster

Karen Shuster has responded to the Indumentum's request that VRS Members add their favourite Good Doers or Proven Performers for consideration by the Membership for the ever evolving list of the Rhododendrons which we as a Club could confidently recommend to serious gardeners in the GVRD and more particularly to possible purchasers at the annual VRS Sale & Show.

Again, for your ease of reference, the criteria for such "chosen" recommendations are:

1. disease and fungal resistance;
2. cold hardiness;
3. vigour (capacity to easily produce a good root system and grow quickly above ground);
4. drought resistance;
5. insect and disease resistance;
6. pleasing plant form (not straggly, sprawling, or too large);
7. attractive flowers judged by shape, number, colour, presentation and season of blooming;
8. leaf colour, shape, size and indumentum; and
9. commercial availability.

Karen noted: "My favourite rhodies made the cut first and foremost because they have great foliage and good form, flowers being just a bonus. Choosing just six was painful so I've bent the rules a bit by utilizing 2 categories and then upping the number to 9. More detailed information may be found at: http://www.rhododendron.org/search_intro.htm."

To facilitate comparison with prior lists and descriptions included in the Indumentum and the format commonly if arbitrarily utilized by other Chapters in the ARS to categorize Good Doers, we have recast Karen's two categories of Species and Hybrids in the standard format but have otherwise adopted her descriptions:

Rhododendron Species

Azaleas are composed of the Tsutsusi Subgenus and Pentanthera Subgenus of the all encompassing Rhododendron Genus, but in the past Gardeners have simply divided Species into "Azaleas" and "Rhododendrons". This practice is thankfully dying out.

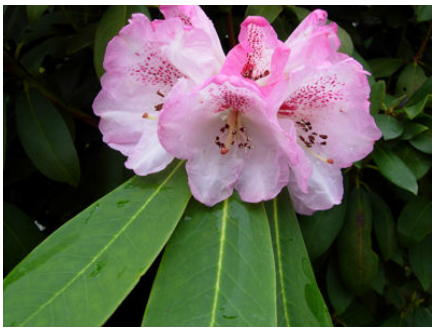
The photographs are from the Hirsutum site, mostly by Garth Wedemire and are of PNW plants.

1. **R. augustinii Marine**, 6ft; mid-season blooming (“M”); blue flowers; Comments: glowing background. (Picture from Mary Parker’s Garden in Nanaimo.)

2. **R. davidsonianum Ruth Lyons**; 6ft; M; clear pink flowers; Comments: small leaves.

3. **R. pachysanthum;** 2ft; early to mid-season blooming (“EM”); pink flowers; Comments: thick, rusty-brown indumentum

4. **R. praevernum** 5ft; very early booming ("VE"); white flowers; Comments: prominent purple blotch; small tree.



5. **R. degronianum ssp. yakushimanum** 2 ft; M; pink fading to white blossoms; Comments: felty white indumentum.

6. **R. yunnanense Bodnant Form** 5 ft; M; white flowers; Comments: floriferous, fragrant and attractive to bees.

AZALEA SPECIES

7. **R. albrechtii** 4 ft; E; purple flowers.

8. **R. kiusianum** 2 ft; Medium to Late season blooming ("ML"); this species blooms with various colours; Comments: compact, evergreen.

9. **R. macrosepalum Linearifolium** 3ft; ML; pink flowers; Comments: leaves and flowers very narrow, also known as "R.stenopetalum 'Linearifolium'".

HYBRID RHODODENDRONS

The nine Hybrids that Karen Shuster selected are all elepidote hybrids except for the first which is lepidote. The “chosen” are:

10. **“Alison Johnstone”** 4 ft; M; amber flushed then to pink flowers; Comments, dainty.

11. **“Creamy Chiffon”** 3 ft; E; yellow flowers; Comments: a double flower, long lasting

12. **“Fastuosum Flore Pleno”** 6 ft; EM; blue flowers; Comments: a double flower, long lasting.

13. **“Golfer”** 2 ft; EM; pink flowers; Comments: a ‘Yak’ hybrid.

14. **“Loderi Venus”** 6 ft.; M; pink flowers; Comments: fragrant flowered, small tree.

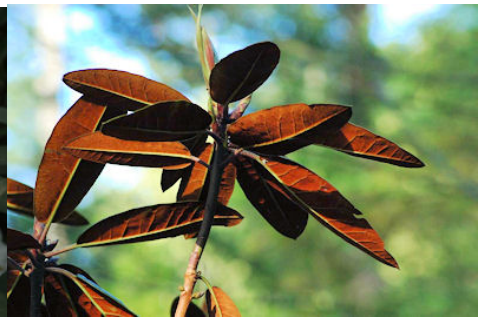
15. **“Mrs. E.C. Sterling”** 5 ft; ML; silvery pink flowers; Comments: tall truss.

16. **“Nancy Evans”** 3 ft; M; amber flowers; Comments: buds orange.


17. **“Peeping Tom”** 3 ft; EM; white flowers; Comments: prominent plum-purple eye.


18. **“Sir Charles Lemon”** 5 ft; EM; white flowers; Comments: small tree with cinnamon indumentum.





THE END