

WILD NEWS

Prince William Wildflower Society

A Chapter of the Virginia Native Plant Society Number 2016-01 January-February 2016

The Prince William Wildflower Society
2016 Winter Slideshow
Monday, January 18, 2015, 7:30 p.m.
Bethel Evangelical Lutheran Church
8712 Plantation Lane, Manassas, Virginia 20110

Join PWWS members and friends to view, show, and talk about exciting plants and places seen and visited in the past year. Tamie Boone, PWWS program chair, has lined up the following program for your enjoyment: Christine Sunda will share photos of wildflowers taken in Crete and Norway the summer of 2015; Nancy Vehrs will share photos from her VNPS trip to the Mountain Lake area as well as some from the Blue Ridge Parkway field trips for the Cullowhee (NC) Native Plant Conference; Charles Smith will share photos of the Florida Keys, Deep Cut, and Crabtree Falls in Nelson County; and Judy Gallagher will share some photos of unusual flowers from Florida, the Green Swamp in North Carolina, and a local shrub that she had not noticed before. All are welcome. Our meetings are free and open to the public, so bring a friend or two! Refreshments will be served and doorprizes awarded.

President's Corner

As I write this in early January, Winter has finally arrived! At the end of December I was wearing shorts and wading in the ocean at Hatteras Island in the Outer Banks of North Carolina. We celebrated Christmas locally where friends were using their air conditioner. I had a hepatica bloom in December, and a friend had spring beauties bloom. Ah, it's a wacky weather world in which we live. Those early blooms may have sacrificed some flowers this spring, but they were unexpected and exciting finds. They will have to sustain us as we long for spring blooms.

Do you have a copy of the NoVA Natives plant guide? Chock full of beautiful color photographs, this booklet can help as you plan additions to your garden. We'll be distributing copies to new members who attend a meeting, and they are available for sale at \$5. These guides are all part of the Plant NoVA Natives (PNN)

campaign to encourage the propagation, sale, and planting of plants that are native to our region. The PNN campaign has a speakers' bureau and trained-volunteers to spread the word to homeowners associations, garden clubs, faith communities, and other organizations that manage land. Check out the website at www.plantnovanatives.org and take the pledge to plant natives. Encourage your neighbors and friends to do so as well. If you're a Facebook user, follow the Plant NoVA Natives FB page—as well as the PWWS and VNPS pages! If you have photographs of native plant gardens and are willing to let PNN use them (with attribution, of course), please send them my way at nvehrs1@yahoo.com.

We are very excited about our upcoming fourth annual garden author event on February 21. With both the Prince William Master Gardeners and Prince William Conservation Alliance as co-sponsors, landscape architect Thomas Rainer will present on the new book he co-authored with horticulturalist Claudia West: *Planting*

in a Post-Wild World: Designing Plant Communities for Resilient Landscapes. We'll have copies of the book for sale and Mr. Rainer will be available to sign them. Our sponsoring organizations and PNN will have exhibits at the event, and we will offer free refreshments as well. We have been fortunate to host such acclaimed speakers as Nancy Hugo, Doug Tallamy, Rick Darke, and now Thomas Rainer.

It's time for our annual member slide show on Monday, January 18. Charles Smith, Christine Sunda, Judy Gallagher, and I all plan to share some of our special photos from this past year. Sit back and enjoy the

flowers, then mingle with fellow members and friends over refreshments. I look forward to seeing you there as we kick off 2016. ~ Nancy

Prince William Wildflower Society Membership Meeting Monday, November 16, 2015, 7:30 p.m., Bethel Lutheran Church, Manassas, Virginia

President Nancy Vehrs informed those present that our *Wild News* editor, Deanna High, was in the hospital but was expected to be going home soon. A get-well card was passed around. Deanna's husband, Jack High, was present, and he said he would take the card to Deanna during his visit to her following the meeting.

Program: Nancy introduced the speaker, Dr. T'ai Roulston, curator at the state Arboretum of Virginia at Blandy Farm. He spoke on our native bees, which are very important pollinators. Differences between bees and wasps were discussed, and one main difference is that wasps are meat eaters (insects, spiders), and bees collect pollen (protein) and nectar (carbohydrate) for food. (Honey bees are not native to the United States and were introduced from Europe.)

Dr. Roulston shared many interesting facts on the diversity of the native bees and on current research. Two species of bumble bees are endangered, the Rusty patched bumble bee and the American bumble bee, and the research on them includes studying their seasonal food limitations.

Dr. Roulston ended his presentation with information on encouraging native bees to visit your yard or garden. Provide food throughout the spring and summer

(flowers blooming at different times), also undisturbed ground, natural cavities, and plant stems (pith) for nesting. Limit pesticides. One can also provide yard art in the form of "bee hotels," which can be purchased or easily constructed.

Announcements: Nancy thanked Brenda Hallam, Joyce Andrew, and Marion Lobstein for refreshments. Marion furnished a cheesecake to celebrate her 70th birthday on November 15.

Newcomers to a PWWS meeting were introduced: Ellen Long, Dana Hollifield and daughter Mary, and Keg Good.



Tamie Boone, vicepresident and program chair, invited all to the January 18 PWWS meeting for the annual Winter Slide Show.

Nancy announced the February 21, 2016 program from Thomas Rainer, landscape architect and co-author of

Planting in a Post-Wild World: Designing Plant Communities for Resilient Landscapes.

Co-sponsors of this presentation are Master Gardeners of Prince William, Prince William Conservation Alliance, and PWWS; venue is the Manassas Park Community Center. The program is free; refreshments will be available, and Mr. Rainer's book will be for sale.

The March 21 PWWS meeting will feature Vicki Shufer, who will speak about edible plants.

Doorprizes: Carol Thompson, Joyce Andrew and Glen Macdonald, notebook and pen; Keg Good, *Native Plants for Northern Virginia*; Tamie Boone, a birdhouse; Brenda Hallam, *Native Shrubs and Woody Vines*; Dee Brown chose the children's book, *Isabella's Peppermint Flowers*, and then gave it to a child who was present, Mary Hollifield.

In attendance: Speaker T'ai Roulston, Joyce Andrew, Tom Andrew, Tom Attanaro, Janice Beaverson, Tamie Boone, Dee Brown, Sue Dingwell, Louise Edsall, Jeanne Endrikat, Judy Gallagher, Harry Glasgow, Keg Good, Brenda Hallam, Jack High, Dana Hollifield, Mary Hollifield, Marion Lobstein, Ellen Long, Glen Macdonald, Donna Murphy, Leslie Paulson, Libby Pemberton, Sheryl Pollock, Janis Stone, Carol Thompson, Nancy Vehrs, Celia Vuocolo, Karen Waltman, and Janet Wheatcraft. ~ Karen Waltman, Secretary

EVENTS

January

Monday, January 18, 2016, 7:30 p.m., PWWS Annual Winter Slide Show. Join PWWS members and friends for this casual gathering to view photos from all over and to enjoy refreshments and doorprizes.

February

Saturday, February 6, 10:00 a.m., Merrifield Garden Seminar, Gainesville, Va., "Seed Starting," with Larry Shapira, Merrifield plant specialist and professor emeritus, NVCC. Free seminar at Merrifield Gardens.

Saturday, February 13, 10:00 a.m., Merrifield Garden Seminar,

Merrifield, Va., "Great Plant Combinations," with Karen Rexrode, Merrifield plant specialist.

Wednesday, February 17, 8:00 a.m. to 5:00 p.,m., Piedmont Landscape Association 33rd Annual Seminar, the Paramount Theatre, Charlottesville, Va. Speakers for this year's seminar are Claudia West, Dennis VanEngelsdorp, and Tony Avent. Details of the program and registration are online at www.piedmontlandscape.org.

Saturday, February 20, 10:00 a.m., Merrifield Garden Seminar, Gainesville, Va., "Gardening for the Birds," with Andy Johnson, Merrifield plant specialists. Free talk at Merrifield.

Sunday, February 21, 2016, 2:00 p.m., Manassas Park Community Center, 99 Adams Street, Manassas Park, Va., 20111. Come and hear Thomas Rainer, co-

author of the acclaimed new book, *Planting in a Post-Wild World*. This event is sponsored by Master Gardeners of Prince William, the Prince William Wildflower Society, and the Prince William Conservation Alliance. (See a review of the book in this issue of *Wild News*). The event is free and open to the public. Registration is requested: call the Master Gardener Help Desk at (703) 792-7747 or email *master_gardener@pwcgov.org*.

Saturday, February 27, 10:00 a.m., Merrifield Garden Seminar, Fair Oaks, Fairfax, Va. "Gardening with Native Plants," with Keith Tomlinson, park manager, Meadowlark Botanical Gardens.

March

Saturday, March 19, 10:00 a.m., Merrifield Garden Seminar, Merrifield, Va., "Fragrant Gardens," with Karen Rexrode, Merrifield plant specialist.

Monday, March 21, 7:30 p.m., Bethel Lutheran Church, Manassas. PWWS membership meeting hosts Vickie Shufer, naturalist, forager and herbalist. Shufer is author of *A Coastal Ecology Coloring Book, A Naturalist's Field Guide to Coastal Communities*, and more recently, *The Everything Guide to*

Foraging. She is the founder of EcoImages and owner of a 16-acre native plant nursery, Wild Woods Farm, in North Carolina. She will speak to us about foraging for food and edible and medicinal herbs and plants. PWWS membership meetings are free and open to the public. More details on the program will be forthcoming in the March-April 2016 Wild News.

The Good, the Bad, and the Beautiful?
Local Species of the Cashew family (Anacardíaceae)
By Marion Lobstein, Botany
Chair, PWWS and Professor
Emeritus, Northern Virginia
Community College

In traditional classifications—including that of Linnaeus in 1753—all of our Virginia

representatives of the Anacardiaceae (Cashew Family) were placed in the genus *Rhus*. Now, the non-toxic Sumacs remain in the genus *Rhus*, and the toxic species have been moved to the genus *Toxicodendron*. The taxonomic history of these changes and the meaning of scientific names for our local Cashew family species are covered in this article and in the chart below.



The bright scarlet to orange leaves and the crimson fruits at the tops of our native, non-toxic Sumacs are distinguished from the their toxic relatives Poison ivy

and Poison sumac with their scarlet leaves and whitish fruits along the stems where leaves have formed. Such details should make the toxic cousins visible to Fall hikers. Even in winter, red fruits may still be seen on some of our Sumacs such Staghorn sumac, as well as the numerous roots on the climbing vines of Poison ivy, and the whitish fruits of Poison ivy and Poison sumac.

The non-toxic Sumacs in the genus *Rhus*, a handsome group of shrubs or small trees (some species grow up to 30 feet), are members of the Anacardiaceae (the Cashew family). There are a number of "good" or

non-toxic members of this genus in our area including Staghorn sumac (*Rhus typhina*), Winged or Shining sumac (*R. copallina*), Smooth sumac (*R. glabra*), and Fragrant sumac (*R. aromatica*). On the other hand, some of our most notorious native plants formally included by many taxonomists in *Rhus* are now included in the genus *Toxicodendron*: Poison ivy (*T. radicans*), Poison oak (*T. pubesens*), and Poison sumac (*T. vernix*). The

distribution of these seven species of Rhus and Toxicodendron is essentially the East coast into the Midwest. Frank Lloyd Wright used the Staghorn sumac as a symbol of the Midwest in stained glass window designs.

Staghorn, Winged, Smooth, and Poison sumac are shrubs or small trees with compound leaves up to 30 feet in height while Smooth sumac may only reach 15 feet. Fragrant sumac, Poison ivy, and Poison oak all have trifoliate, compound leaves, with the leaflets usually shiny in Poison ivy and Poison oak, but not shiny in Fragrant sumac. Fragrant sumac is a straggling shrub up to six feet; Poison

oak is a shrub and not climbing, while Poison ivy can be a shrub or vine with numerous aerial roots. All of these species, except Poison sumac, are found in oncedisturbed areas, such as old fields, thickets, and fencerows. Poison sumac is found only in swamps, bogs, or other wet areas; the other species grow in drier habitats.

The flowering heads or inflorescences of both Rhus and

Toxicodendron species in our area are quite showy, though each tiny individual flower is small and inconspicuous. In the Rhus species, the inflorescences are terminal, whereas those of Toxicodendron are axillary. (The axil is the point of attachment of a leaf to a stem). The flowers are either male or female on separate plants (dioecious, or two households). There are five green sepals fused at their bases, five greenish-white to yellowish petals with typically five stamens in a male flower, and a pistil with a superior ovary and three stigmas and styles. The fruit is a dry drupe with a hard center containing the seed. In Staghorn, Smooth, Winged, and Fragrant sumac, the berries are crimson red with short hairs. The upright, compact heads of Staghorn

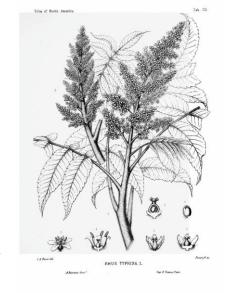
are quite distinctive and persist from one fruiting season to the next. Smooth and Winged sumac fruit heads are smaller and the arrangement looser compared to Fragrant sumac fruits in small clusters. The berries of Poison sumac, Poison ivy, and Poison oak have a grayish to whitish waxy appearance similar to mistletoe. Berries of all these species, even Poison ivy, are favorite foods for many birds. Birds are a primary means of

dispersal of Poison ivy; up to 55 species of birds eat Poison ivy berries.

Many of the Sumacs have been used for human purposes since Indian and Colonial times. The red berries have been used as a dye, and tannins of fruits were extracted from leaves and twigs. In Appalachia, leaves of smooth sumac were rolled and smoked for asthma. Extracts from berries of Staghorn sumac have been made into a lemonade-like drink (Ewell Gibbons gave a recipe for this drink in *Stalking the Wild Asparagus*), and also as a gargle for sore throat. The bark of Staghorn and other non-toxic Sumac was boiled in milk to treat burns,

and extracts have been used to treat skin ulcers, diarrhea, lymph node infections, and even gonorrhea. Staghorn sumac was exported to Europe as early as 1627 for horticultural and other uses.





Our Toxicodendron species have toxic oil in all parts of the plants. This substance, known as Urushiol, is an allergen that can cause a severe allergic reaction in the form of a painful and itchy rash on the skin (dermatitis) or if inhaled, on the mucus membranes of the respiratory system. Even in winter or in dead plants, Urushiol remains in the plant parts. Washing hands and other areas of the body with plenty of soap and water after possible contact also minimize chances for developing the blisters of a poison ivy reaction. If your dog brushes up against Poison ivy, you can be exposed to the Poison ivy oils from the animal's coat. Never burn Poison ivy vines or other Toxicodendron plant parts, as the oils can become air-borne in the smoke and inhalation of this material can be serious or even fatal to those allergic to this plant. Jewelweed (Impatiens capensis or I. pallida) extract (stems and leaves) or crushed Plantain (*Plantago*) leaves can be used to treat rashes.

Poison ivy was exported to Europe in 1640 as an oddity to be planted in display gardens. In the 1700s, it was used to treat skin ailments such as scars or hepatic eruptions. American Indians used it to treat warts. Poison ivy has laxative, diuretic, and stimulant properties and has been used to treat osteoarthritis, ringworm, and nervous conditions. This native American plant has now naturalized in parts of Europe.

Both non-toxic and toxic members of the Cashew family are a group of plants that in all times of the year deserve to be enjoyed and appreciated, although the toxic species should be viewed only at a distance.

Poison Ivy, Poison Oak, and Poison Sumac in Genus Toxicodendron; Other Sumacs Remain in Rhus in the Anacardiaceae

By **Marion Lobstein**, Botany Chair, PWWS and Professor Emeritus, Northern Virginia Community College

Worldwide, the Anacardiaceae plant family contains approximately 70 genera and 600 species. Often referred to as the Cashew family (*A. occidentale* is the binomium of the Cashew, a native of Brazil), the name of this family of trees, shrubs, and vines was given by John Lindley in 1830, and is derived from the Greek *ana*, meaning "without" and *cardium*, meaning "heart." This refers to the location of the seed outside of the main part or heart of the fruit.

In the *Flora of Virginia*, Anacardiaceae is represented by only two genera, *Rhus* with five species, one of which has two varieties, and *Toxicodendron*, with four species, one of which has three varieties. (These species and

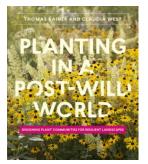
varieties are outlined in the chart accompanying this article). *Rhus* is derived from the Latinized Greek term *rhois*, the name for sumac. Linnaeus placed species of *Toxicodendron* into the genus *Rhus*. *Toxicodendron* means toxic or poison tree from the Greek *toxikos* meaning "poison," and *dendron* meaning "tree."

The genus *Rhus* currently has approximately 25 species worldwide. Linnaeus named 13 species of Rhus and by the end of the 1700s, an additional 14 species had been added to this genus. Since then, a number of Rhus species have moved back and forth in Toxicodendron. The official authority for *Toxicodendron* is Phillip Miller (1754), but Joseph de Tournefort first used the genus in 1700. *Toxicodendron* currently has 10 to 15 species. Rhus and Toxicodendron species have been known and used since ancient Greek and Roman times. The fruits of R. coriana, Sicilian sumac, were used as a spice, and other parts of the plant were used as tannins to tan leather dyes. Theophastus and Dioscorides both mention this plant for culinary and medicinal uses. In Japan and China, records of Poison ivy (*T. radicans* subspecies orientale and T. radicans subspecies hispidis), go back to the 800s and 1300s. Oriental lacquer was derived from T. vernicifluum. Our Poison ivy was first mentioned in 1607 by Captain John Smith from specimens in the Jamestown area. He described its poison or toxic nature and its growth form similar to English ivy. In 1640, Poison ivy was introduced into Europe. The specimen of Poison ivy Linnaeus used to assign its binomium was collected by Peter Kalm in what is now Delaware. Even though Linnaeus assigned Poison ivy to the genus Rhus rather than Toxicodendron, he did use Toxicodendron as a species epithet in naming Poison oak, R. toxicodendron (now T. pubescens). DNA studies now show Poison oak and Poison ivy to be separate species.

In the *Flora Virginica* (2nd ed. 1762), John Clayton listed a number of species of both *Rhus* and *Toxicodendron*. Poison ivy, Poison oak, and Poison sumac are all described, but placed in the genus *Rhus*. Winged, Smooth, and Staghorn sumacs are described in this work as well.

[Image credits: Coneflower with fritillary, Deanna LaValle High; Poison sumac (*Toxicodendron vernix*), Robert H. Mohlenbrock, USDA-NRCS PLANTS Database / USDA SCS. 1991; Staghorn sumac (*Rhus typhina*), John Hixson, Ladybird Johnson Wildflower Center, NPIN image no. 26342; Poison ivy (*Toxicodendron radicans*), accessed at www.spottsgardens.com; Staghorn sumac (*Rhus typhina*) drawing: Sargent, *Silva of North America* v. 3, pl. 102 (1892); Wavyleaf coneflower (*Echinacea simulata*), Alan Cressler, Lady Bird Johnson Wildflower Center, NPIN image id 44998; Stained glass window image: Frank Lloyd Wright, Autumn Sumac, Susan Lawrence Dana House, Springfield, Illinois.]

Genera in Anacardiaceae in FOV and authorities	Common Name of Genera	Species and Varieties	Meaning of species and varieties epithets	Common names	Synonym	Notes on Distribution in Virginia
Rhus Linnaeus 1753	Sumac					
		<i>R. aromatica</i> var. <i>aromatica</i>	Fragrant	Fragrant sumac	R. aromatic; Schmaltzia crenata	Piedmont and Mountains
		R. copallium var. copalllinum	Resinous; resonous	Winged or Shining Sumac	R. copallium; R. leucantha; R. obtusifolia	Coastal Plain and Inner Piedmont
		<i>R. copallium</i> var. <i>latifolia</i>	Resinous; leaves on sides	Winged or Shining Sumac	R. copallium	Mountain and Outer Piedmont
		R. glabra	Smooth	Smooth sumac	<i>R. glabra</i> var. <i>glabra</i>	Throughout
		R michauxii	Andre Michaux	Dwarf sumac	R. pumila	(Rare) Southern Piedmont
		R. typhina	Cattail-like	Staghorn sumac	R. hirta	Throughout; (Common mountains; rare elsewhere)
Toxicodendron P. Miller 1754	Poison Ivy, Poison Oak, and Poison Sumac					
		T. pubescens	Hairy	Poison Oak	R. toxicodendron; T. toxicocarium	Throughout but mainly Coastal Plain
		<i>T. radicans</i> var. <i>negundo</i>	Roots forming from stem; black	Poison Ivy	<i>R. radicans</i> var. <i>vulgaris; T.</i> <i>radicans</i> ssp. <i>negundo</i>	Western Virginia
		<i>T. radicans</i> var. <i>pubens</i>	Roots forming from stem; hairy	Poison Ivy	T. radians ssp. pubescens	Infrequent in Mountains
		<i>T. radicans</i> var. <i>radicans</i>	Roots forming from stem; Roots forming from stem	Poison Ivy	R. radicans; R. radicans var. radicans	Common Throughout
		T. rydbergii	P.A. Rydberg	Western Poison Oak	R. radicans var. rydbergii	Rare; only Page and Rockingham Counties
		T. vernix	Varnish	Poison Sumac	R. vernix	Infrequent in Coastal Plain and Rare Elsewhere



Not So Wild?

Thomas Rainer and Claudia West, *Planting in a Post-Wild World: Designing Plant Communities for Resilient Landscapes*, Timber Press 2015. 271 pp. \$39.95.

Authors Rainer and West, landscape architect and landscape designer, respectively, have written an impressive treatise that postulates a new, comprehensive method for designing and creating plant communities that work in both urban and suburban sites. Obviously geared as a guide—even a textbook—to the budding landscape architects and designers of the world, the authors also offer us ordinary gardeners an enormous amount of valuable information in a beautiful format. A plethora of photographic examples are in full color and charts and text are clear and lovingly plotted. Hats off to the authors and Timber Press for such a handsome book!

Is the book a one-stop shop for those looking for ways to garden with native plants and to create a more "readable" native plant landscape, to borrow one of the authors' favorite terms? Not at all! Rather, the authors embrace natives when it suits their design purposes, but also recommend using exotics and other non-natives for the same reasons. They eschew the notion of a plant's country of origin being of importance and emphasize, instead, how a plant performs in "naturally occurring plant communities." What all is meant by this is the subject at hand for the first 130 pages or so of the book. For those with little patience for garden philosophizing, I recommend scanning the beginning and skipping to the third chapter, where methods are fleshed out from the theory and wherein the real value of the book lies. For those who might object to the absence of any animal other than homo sapiens as a raison d'être worth considering in designing gardens, be forewarned that the exclusive emphasis of the book is on design. For those who seek an overview of what's going on in the professional world of international garden design, the book contains numerous examples of mostly publicgarden designed spaces that are fresh off the palate of Noel Kingsbury, Adam Woodruff, Piet Oudolf, and Sarah Price, to name a few. Rainer's and West's approach strikes me as largely foreshadowed by 20th century garden design work, especially invoking the "new American Garden" of the late Wolfgang Oehme and James van Sweden, which makes sense, as both authors emerged from the legendary collaboration that

had its roots so firmly planted in German plant propagation and color design.

The plant communities design method is defined by five principles that are clearly laid out in the book: 1) Related populations, not isolated individual plants. The authors claim new ground in advocating dense plantings determined by how plants adapt to various sites together to produce "longer succession of bloom, more diversity of texture, and longer-lasting ground cover." 2) Stress is an asset. (A concept native plant gardeners can easily grasp). An example given of this principle is a field of *Echinacea simulata* (Wavyleaf purple coneflower) blooming in a calcium-rich prairie (p. 47) in an unspecified part of the world. The point is that this "problematic soil (by horticultural standards) can support over forty rare and endangered animals and plants." This is one of the few instances in the book where a relationship of plants to animals is acknowledged. Regarding stress as an asset also can be stated as "work with what you have, rather than strive to change it," that is, to embrace the unique qualities of a site—even if they are negative by horticultural standards—is essential to creating a "sense of place." 3) Cover the ground densely by vertically layering plants. Essentially an adumbration of the first principle, the authors go to considerable trouble in the book to explain how to achieve vertical layering; there's enough substance here alone to warrant the price of the book. 4) Make it attractive and legible. This is landscape architectspeak for adding features in defining the space, which means giving it structure - sometimes, but not always, in the form of hardscaping—so it's not just a messy jumble of plants. 5) Management, not maintenance. An approach that advocates shifting from the routine seasonal tasks of watering, mulching, weeding, and spraying to a different scale and scope: mowing, burning, and selectively removing or adding, using design goals of the garden and the plants' seasonal strengths to guide activity. Rather than a schedule of maintenance, the gardener must be goal-driven by the design itself: tweaking may be aesthetic or functional. These five principles, according to the authors, "frame a bold alternative to traditional planting," for aesthetic, environmental, and budgetary reasons.

But there's a lot more: Designed landscapes are categorized (and this is important to the whole approach) into three archetypes based on nature: grasslands, woodlands and shrublands, and forests. "Edges," exist in all three design archetypes and figure hugely in creating the appropriate nature-inspired designs. The authors helpfully list "things to avoid" in each type of archetype-inspired design, and the

appropriate landscaping of the edges of the three archetypes are discussed in some detail.

The second half of the book delves deep into the design process, which boils down to three relationships: 1) plants to place; 2) plants to people; and 3) plants to plants. To my mind, this is the best part of the book. Among the strategies recommended to address plants to people, for example, is to make plant patterns visible vis-à-vis the concept of massing, which is basically a call to use many more plants in a design than would happen in nature, and to create interlocking combinations of woody and herbaceous plants—all related to your chosen archetypeinspired design, of course. For example, the directive to "use a high percentage of visual essence species," simply means that the distinctive quality of the dominant species within a given habitat should be emphasized.

Included in the design process discussion are profiles of thought-leaders of plant-habitat systems, a nod to the authors' influences. There are some fun surprises here: who knew that Coneflower is essentially "unsocial," but Foamflower a raging party animal? An amazing amount of information is packed into these chapters. One example: To achieve those interlocking compositions, a design response to a woodland and shrubby edge landscape by a busy road, for example,

might be trifold: 1) plant a spine of taller shrubs to screen the road; 2) layer a mix of tall perennials and ferns between shrubs (presuming a mix of sun and shade); and 3) create a colorful foreground of low perennials. General, perhaps, but still good as a jumping-off point. Specifics on what those taller shrubs and colorful perennials might be depend on a number of other design responses and a thorough knowledge of your plant community type.

The last section of the book deals deftly and expertly with creating and managing a plant community, discussing site preparation (some neat, useful surprises here) in some detail, including how to establish young plants, determining what size of plants will succeed, clearing a site, amending soils (or not), weed maintenance, compacted soils, and installation: using a plant's natural growth cycle to your advantage, laying out a new planting, managing layers; and creating a toolbox of maintenance techniques. All very useful stuff!

The book concludes with case studies of three radically different gardens: A formal, historical garden in Munich, a wildly mutable garden in New Jersey, and a seaside garden in England that beautifully flourishes in spite of—or because of—extreme soil and weather conditions. ~ *Deanna LaValle High, editor*



PRINCE WILLIAM WILDFLOWER SOCIETY

A Chapter of the Virginia Native Plant Society P.O. Box 83, Manassas, Virginia, 20108-0083

Next Meeting: Monday, January 18, 2016, 7:30 p.m.

"Prince William Wildflower Society Annual Winter Slideshow"

Bethel Evangelical Lutheran Church, 8712 Plantation Lane, Manassas, Virginia 20110