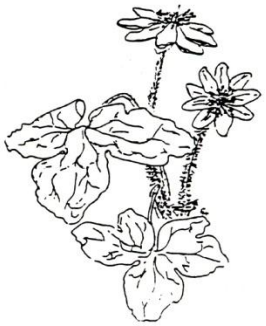

Newsletter

North American Rock Garden Society
Berkshire Chapter *October 2009*

Next Meeting

Saturday, November 7 at Noon
The BNARGS Annual Luncheon

The Hitchcock Room
The Red Lion Inn
30 Main Street
Stockbridge, MA

Speaker

Priscilla Twombly
'Beautiful Buns and Shrubs for the Rock Garden"

Formerly co-owner of Twombly Nursery, and prior to that, alpine manager at Oliver's, she is an expert horticulturist for growing rock garden plants. Her program will focus on the buns and shrubs we most want to grow successfully, and provide us with a visual inventory as well as the kinds of cultivation advice we need here in New England.

Lunch will begin at 12 Noon, followed by a brief business session, and then Priscilla's program!

Chairman's Message

Species is the Latin word for kind or appearance. As rock gardeners, most of us communicate regarding kinds of plants by using the scientific binomial name of the species e.g., *Saxifraga oppositifolia, Primula allionii*. But what is a species?

Classical taxonomy relies on morphological differences between populations of organisms as the basis of species determination. Essentially, a species is what an expert says it is. This has inherent flaws: 1) who determines who is an expert? and 2) it is subjective and arbitrary in that the expert decides how much difference between groups of organisms constitutes specific status. I am sure you have heard of the distinction of taxonomic "splitters" and "lumpers." Splitters see minor morphological variation as justifying species distinction. Lumpers recognize morphological variation in a population and have a broader view of what defines a species. The blooming plant of *Rhododendron emarginatum* W. Hemsley & E.H. Wilson, 1910 (= *R. euonymifolium* H. Leveille, 1913 = *R. poilanei* P. Dop, 1930) I displayed at last month's Berkshire

Chapter meeting serves as an example. Steve Hootman, Collection Curator of the Rhododendron Species Foundation in Federal Way, WA, comments on this plant. "This is one of several closely related taxa newly introduced [into cultivation] from S Yunnan and N Vietnam. Many of these have only recently been described as new species by Chinese botanists. Having observed and grown plants from several collections made as various of these "species" I feel that a reduction to two or three distinct taxa is in order as little if anything separates them morphologically." In addition, morphological species may fail to consider: morphs of polymorphic species (in some butterflies males and females appear very different), alternation of generations (larval, asexual jellyfish don't look anything like the sexual, adults) and phenotypic plasticity (some aquatic plants can grow emergent from water and look different from the submerged form). Phenotype refers to the physical appearance of an organism.

In order to circumvent the subjectivity of defining species by morphological differences, the evolutionary biologist Ernst Mayr (1904-2005) proposed in 1942 the Biological Species Concept. He stated that "species are groups of actually or potentially interbreeding natural populations which are reproductively isolated from other such groups." This is not whether they <u>can</u> interbreed but <u>do</u> they. For example, most North American ducks can interbreed in captivity but rarely do so in the wild thus, are considered distinct species. Thus, a species is a natural biological unit based on a common gene pool. This concept has a sound philosophical basis and is now a textbook standard. Although the biological species concept is closest to biological reality it is difficult to apply in all cases i.e., it has its own problems.

Some of these problems are obvious. It cannot be applied to fossils, museum specimens and herbarium mounts. In the realm of the living, there are numbers of biologically interesting examples that do not readily fit into this concept.

1. Rassenkreis (ring of races). Buckeye butterfly, *Junonia lavinia*, has populations living along the Gulf of Mexico from southern Florida through the Gulf States, into Mexico to the Yucatan and onto islands of the Caribbean. All populations along this ring can interbreed with adjacent populations. However, in Cuba the Caribbean and south Florida populations meet and do not cross. Leopard frogs, *Rana pipiens*, are found throughout North America. However, frogs from Texas to Florida when crossed with frogs from Wisconsin to Vermont produced deformed and unviable offspring.

2. Asexual species are organisms that reproduce without exchange of genetic material between individuals. So where does one put the Amazon Molly, *Poecilia formosa*, a live bearing freshwater fish living in N Mexico and S Texas? All populations of this fish are 100% female. The *P. formosa* mate with males of other bisexual *Poecilia* species. The donor sperm contact the Amazon Molly's eggs and activate them but none of the sperm genetic material (DNA) is incorporated. The activated eggs go on to develop into females all genetically identical to their mother. The Amazon Molly can produce broods of up to 100 fry. Other parthenogenetic, all female populations are known from whiptail lizards and mole salamanders (*Ambystoma*).

3. Sibling species are reproductively isolated populations that show little morphological differences. In most cases it is impossible to look at them and tell the difference but they do not interbreed. Examples occur in fruit flies (*Drosophila*) and mosquitoes. I recently read of a pair of sibling species of mosquitoes where one species could transmit malaria and the other could not. It was pointed out that for control purposes it would be important to know which was which. I have recently run into a related problem in my own research on the parasitic hair follicle mites of mammals (*Demodex*). A colleague in the Czech Republic described *Demodex kutzeri* Bukva, 1987 from the red deer, *Cervus elaphus*, in Austria and a captive Sika

deer, *Cervus nippon pseudaxis*, in Germany. I have examined follicle mite material collected from elk (the American name for *Cervus elaphus*) in Colorado and as expected (by me), it is indistinguishable from that of the red deer. Surprisingly (to me) mites from white tailed deer (CO, SC, SD) and mule deer (CO, WA, Saskatchewan) are also identical to *D. kutzeri*. These mites are transferred from one host to another by physical contact. Mule deer, white tailed deer and elk do not hang out together, and interspecific host transfer does not occur. Therefore I must conclude the mites from the 3 host species represent 3 biological species of *Demodex*, but because these mites are identified through their morphology I had to report all as *D. kutzeri*.

Even though the philosophic basis of the biological species concept is sound and despite the subjectivity of the morphological basis of species, the latter works for sorting and naming. In practice, including my own taxonomic work on hair follicle mites, almost all species are recognized and defined by morphology. In addition, morphological differences are usually a reflection of genetic differences. Sometimes frustrating to the researcher but also wonderful in its diversity, no single concept or definition fits all species. The exceptions are evidence that species are not static, inflexible entities.

Cliff Desch

Daphnes

D. arbuscula 'Muran Castle'

One of the delights of late autumn is seeing the *Daphne velenovskyi* putting forth a few late flowers for the withering hours of the aniline light of November. Most of its leaves have fallen, but this fading burst of life, can make one stop and admire…so different from the gaudy spectacle of May when its blooms overpower all the new green growth in a robe of pink.

Whatever is the plant thinking! It freezes solid at night (20 F); but, the flowers never brown or drop. I mentioned this to Josef Halda once, who replied succinctly,"… where it grows, it freezes every night." It seems ridiculous to assign a 'cold hardiness' rating to such a plant. Growing at 3000m in the Pirin Mt. of Bulgaria,

Daphne velenovskyi

it may even survive the magic number of -40 F, though I don't know. It is one of the slowest growing Daphnes, and takes well to any spot that is well drained. I tried growing it on tufa, but the plants did not like the constriction. I do think it would thrive in a clay crevice between rocks. In the garden we have plants in full sun, facing south and also on the opposite slope in considerably less light with little difference in flower production or growth.

Equally hardy, but entirely evergreen is the larger D. *arbuscula* and the derivative clones now offered - we have 4 ourselves. The smallest of these, *D. arbuscula* 'Muran Castle', is a compact mound of the most verdant green one can imagine. Flowers are a pale pink and abundantly cover the plant in May. This clone has the distinct habit of rooting from the branches that touch soil - not all forms do this-

and these branches can be separated and used for new plants.

Rick Lupp offers a form, *D. arb.* 'Radicans', which is also quite dwarf. However, the needles are shorter and remind one of close relationship

D. x 'Lawrence Crocker'

with *D. petraea*. By the way, *D. arbuscula* will grow in tufa quite well- not too surprising as it is a true chasmophyte

A curious form of *D.. cneorum* 'Porteous' came by way of Barrie Porteous, which he believes is a dwarf form from the French Pyrenees. Completely prostrate, it looks more like a small willow with the red/brown stems exposed as it gets older. Typical white, very fragrant flowers adorn the branches. This plant is small enough to use in containers. Like *D. velenovskyi*, it does

D.. cneorum 'Porteous'

not grow in tufa well, but needs a coarse soil.

The hybrid *D. arbuscula x D. collina* named *D. x* 'Lawrence Crocker' is possibly the easiest of all Daphnes available now. An intermediate form with gray/green leaves and the dark pink/purple flowers of *D. collina* and is wonderfully fragrant. A bit larger than *D. arbuscula* it grows eventually 20cm tall and 30cm wide. It is easily controlled by cutting it back severely. This is, in fact, the best method

D. velenovskyi 'Balkan Rose' – *Lamium armenum* & *Androsace*

for encouraging healthy growth and second bloom) and can be done to all Daphnes.

Of the smaller hybrids now available, I like *D. x thauma* (*D. petraea x D. striata*) as it has a moderate growth rate and the white flowers are set off by the dark green leaves. *Daphne x whiteorum* 'Beauworth', a cross of *D. jasminea* and *D. petraea* has large red/pink buds, opening to rose pink flowers. An easy growing plant with dark green leaves, it forms an attractive multi-branched shrublet.

Another compact mat is *D. x 'schlyteri'*, with parents *D. x 'Leila Haines'* and *D. arbuscula* – it retains the darker flowers of *D x 'Leila Haines'*. It can be used as a low spreading mat. A

regimental clip will encourage new growth and more flowers.

Daphne hybridization is very active and new introductions are soon coming. I like especially the one's that Rick Lupp has created. He is very selective and names only the best. Two of these are named for his granddaughter, another for the superb plantswoman Ev Whittmore. They are worthy specimens for any rock garden.

I have always been interested in how Daphnes will grow on/with tufa and have found it is best not to make assumptions- the response is quite individual. However, there is great promise in growing the smaller Daphnes in narrow crevices, sandwiched with a clay/sand mix. In early April Halda planted some troughs for us in this fashion and though it froze solid every night for over a week, even the *D. calcicola* was unfazed – and everything was straight out of the green house. Since Halda and others have used this method for well over 20 years, it is time we in North America adopted it too. The best aspect of this method is it provides a less stressful environment for root growth, and almost as a bonus, the design and display possibilities take a quantum leap. There will more on this next spring.

Text by Harvey Wrightman – Photos by Esther Wrightman

Know and Grow

Test and Photo by Anne Spiegel

Phlox pungens is endemic to the Wind River Basin in Fremont Co., Wyoming, where it can be found on sparsely vegetated slopes on sandstone, siltstone and limestone substrates. It grows at elevations of 6000' to 7400'. It can be found along the Beaver Rim growing on upper slopes of white, ashy-limey sandstone. It is a perennial, congested mat no more than an inch high with very stiff, prickly, lance-shaped leaves that have very sharp tips. This is a really choice western phlox, and an easy one. It's small enough for a trough and equally at home in a crevice garden. The flowers can range from a near white to pale blue or pale lavender and the petals have a satiny texture similar to *Phlox pulvinata*. *Phlox pungens* is closely related to *Phlox kelseyi* and shares the latter's characteristic of having repeated flushes of bloom throughout the growing season when the weather is to its liking. As I write this (October 3rd), one of my plants in the crevice garden is in bloom. Apart from its beauty, this plant comes with the highest recommendation because it's so easy to grow. I grow it in troughs and crevices in a limey, gravelly mix and it is never watered. (The last is due to necessity, not choice, so by all means give it some water during periods of drought, but sparingly). It does very well growing near tufa. Give it your airiest, sunniest spot and it will repay you many times over with its repeated flowering.

Phlox pungens

This was considered to be a fairly rare plant until the 1990s, when large new populations were discovered at Ross Butte, the Little Colorado Desert and Red Canyon. There are some differences from the Wind River Basin type. The Ross Butte morph, which is restricted to the Green River Basin, has short-stalked glandular hairs on the leaves and may represent an undescribed variety. The Beaver Rim form has an airy calyx tube, a thickened tap root and conspicuously thickened margins and mid-ribs of leaves. Seed of this form is available from Alan Bradshaw (Alplains Seed Catalog: www.alplains.com, and plants are available from Harvey Wrightman: (www.wrightmanalpines.com).

Crevice Workshop

Adapted from Matt Mattus' blog, 'Growing With Plants'

Last Saturday was about as perfect an autumn day as one can get in New England, and Litchfield County, Connecticut wasn't too shabby, either. Joe and I were fortunate enough to be invited to participate in a trough-building workshop arranged by Peter George, of the National Rock Garden Society's Berkshire chapter, and alpine plant nurseryman Harvey

Wrightman, of Wrightman Alpines in Ontario (they ship to the US, fortunately!)
The workshop featured a demonstration on a new way to grow alpines in troughs, which was introduced to Harvey by plantsman and explorer Josef Halda, a close friend of Harvey's who toured the US and Canada earlier this year while on the NARGS national speakers tour. Halda also stayed with us while he was visiting New England in May, and we discussed this new method. It sounds unbelievable on the face of it, but the results we are seeing are quite impressive.

Saturday's workshop showed how clay, sandwiched between sheets of split tufa (limestone) rock, which is porous, can be used as a growing material for some high-elevation alpines. About 20 of us watched as Harvey's wife, Irene, demonstrated how to wash the soil off young potted alpines and rooted cuttings, and then how to smear a slab of tufa (the "bread" of the sandwich) with the muddy clay mixture (the "mayo"). The roots are pressed gently into the clay, with the growing crown emerging at the top. Finally, another rock is pressed on top, sometimes with a bit more clay, and voila! – it's finished.

We all enjoyed making these alpine sandwiches, and then placing them into sand and gravel in the troughs we had brought. Smaller plants, some rooted into pure tufa rock, are then placed around the sandwich structures, and finally the whole assemblage is top dressed with gravel.

Trough plantings are a traditional English method of cultivating certain challenging high alpine plants that prefer particular conditions, such as scree, crevice, or tight rock cracks. These are fussy plants, often requiring a complex combination of fast drainage, constant moisture, and frigid winters with no thaw, fast snow melt, etc. Nevertheless, alpine plants are becoming more popular with people who are concerned about the environment. They are more endangered than ever due to the effects of global warming with ski areas being relocated higher in the Alps, the loss of permafrost in Alaska and Siberia, and other threats to from the encroachment of humans into a fragile habitat. If you are looking for beautiful plants that make a true "green" statement, an alpine trough garden is something to consider. These are not easy plants to get, or to grow, but once established they are remarkably low-maintenance. A correctly planted, well-sited trough can remain untouched for years.

The trough method is a clever reproduction of the plants' natural growing conditions. Many alpines grow best, to character, in tight buns, when grown in pure tufa or limestone rock.

Their tiny hair-like roots move between the channels in the rock, and the plant grows hard and dense. In a trough, the clay that surrounds the roots is mostly limestone elements and particles, with enough grog and chip to still move water through, but only when not fired (think of a wet clay pot). It is both porous and solid. I assume the clay, once dry, never becomes mud again, but simply sponges water. Since the volume of clay is small, and is filling a crevice rather than a pot, the mass never really exposes its surface to large amounts of water. Capillary action and gravity draw water up and down, and in this quarter- to half-inch sheet of dry clay, sandwiched between two slabs of porous tufa, the perfect temperature and moisture levels are maintained.

Of course, we still need to see results, so stay tuned. But the pieces I have of pure tufa, in which silver saxifrages and *Primula allioni* are growing, are 2 years old and in perfect, hard character, as if growing on top of the Alps. And, they are in full sun, in troughs, which I rarely if ever water in the summer, which are exposed to all the winter snow and cold New England can toss at them.

BNARGS 10/10/09 Meeting Notes

Cliff Desch re-elected as Chairperson

Peter George requested an assistant editor-in-training to begin over the next year or so.

We were informed that Ruth Shepherd died – Carol Hanby to send a Sympathy Card from group.

Peter announced that the Crevice Garden workshop lead by Harvey Wrightman from Wrightman Alpines was well attended; great plants sold, many crevice gardeners born. Harvey also brought many (difficult to find in trade) plants of *Adonis vernalis*, with $5.00 of the $20.00 price going to BNARGS plant sale proceeds).

Joe Strauch brought past NARGS volumes to those interested. Tom Flanigan announced the luncheon next month (Nov. 7th at Red Lion Inn, West Stockbridge), with speaker Pricilla Twombley; her topic will be Beautiful Buns for the Rock Garden and Shrubs.

Plant Show & Tell: Cliff brought *Rhododendron emarginata* (yellow flowers), a member of the subgenus Vireya. Vireya rhododendrons include epiphytes and grow in cool mountainous regions of SE Asia.

Morning Program: My Doing and Undoing: Change in the Garden. Lola Lloyd Horwitz was originally a pianist and a piano teacher, who became interested in rock gardening after she read "the book," the book being Linc Foster's Rock Gardening book. She joined NARGS in the early 1980s, became interested in conifers under Joel Spingarn's influence, and joined the Manhattan Chapter of NARGS (formed by Larry Thomas in 1986). All of this was long before she began any landscape design coursework. Her slides revealed the transformation of her back yard (a city lot), concurrent with her own evolution as a rock gardener. She clung to vegetable gardening, which eventually gave way to all rock. Early on her rectangular raised bed was constructed from 3 or 4 layers of brick, called "the barge" by her son (kids speak the truth). Early reshaping included the replacement of chain link fence with a wooden one influenced by the Japanese Garden at Brooklyn Botanic Garden. These early photos captured the relative age and size of family members and plants, mainly a wisteria

and a cherry, the former heavily pruned over the years and the latter being considered for removal most recently. A nice combinations of plants happy to grow with brick gave way to a taller raised bed, more great combinations and groupings, including those in pots commissioned by Larry Thomas (with *Jovibarbar heufellii* 'Lemon Sky') and a very creative chimney flue project. Greenhouse construction in 1990 allowed for the overwintering of many non-hardy bulbs such as *Scadoxus multiflorus*, *Tigridia* 'Sunset in Oz', and *Canna warscewiczii*. Also of interest was *Skimmia japonica* 'Reevesiana,' a hermaphroditic cultivar of what is usually found as a dioecious plant, with only females producing the showy red fruit. Time flew by as we witnessed how a small space in Zone 7 changed over 30 years.

Afternoon Program: The Genus Primula. Pam Eveleigh. If you were not present for this talk, by all means visit Pam's website, www.primulaworld.com, and prepare to be amazed by her gallery of over 2,500 images of Primulas. This was a technical talk which began with a very broad definition of Primula, including "rarely" this, "often" that and "sometimes" the other. Pamela regularly repeated the slide of this description highlighting the "rarely" and "sometimes" portions of the definitions as she described "too many" (by her own admission) sections of the genus Primula. I recorded 20 sections (species grouped into section by similar characters) and still feel overwhelmed. She demonstrated and explained many characters used in their identification and encouraged anyone wanting identification of primula to **take many photos**, not just frontal showing pin or thrum, rather, photos showing the flower in side view, from behind to provide a clear view of all sepals, close up to show farina, leaves that are either involute (leaf margins bending up, which Pam demonstrated by throwing her arms forward) or revolute (leaf margins bending down, demonstrated by throwing her arms backward), height of plant and habitat, etc. Growing conditions in Calgary (Pam's home) are quite different from here. Their winters are dry, with a normal low of 25 degrees Fahrenheit and extremes down to -40 degrees possible; sun scald and desiccation are normal there. Soils are very alkaline as well. This was the sort of presentation that one must follow up with a good primula reference, growing more primula, and traveling all over the world to see primula in their native habitats and in cultivation.

Text by Elaine Chittenden
Photos by Pam Eveleigh 1. *P. auriculata*. 2. *P. capitata ssp. mooreana* 3. *P. jesoana* 4. *P. luteola*

Editor's Notes:

As many of you are aware, Ruth Sheppard died a few weeks ago, after a long battle with cancer. I didn't know Ruth well, but I found her both interesting and interested – attributes that are not as easy to find as we would like, especially in someone fighting off the ravages of disease and pain. I have several of her plants in my garden, all of which are doing quite well. I discovered only recently that Ruth was an outstanding propagator, who at one time (when she had her health) presided over one of the great gardens in our region. I will miss her.

The November meeting is our last of 2009, and I hope it will be a fitting climax to a very good year for BNARGS. Membership is up, attendance at meetings remains strong, and the influx of new members comes at an ideal time. We need to bring newer and younger members

into positions of responsibility, so be prepared to be asked to serve.

Ruth Sheppard and Maria Galletti at Stonecrop

For those of you who are NARGS members, the most recent issue of the Journal features a wonderful article by Robin Magowan, illustrated by Juliet Yli-Mattila's incredible photographs. Robin is one of a number of our members who write regularly for our newsletter, and we published this article in slightly different form in the July newsletter. The paucity of interesting content in the Fall issue of the Journal is a further reminder of how far NARGS has fallen over the past few years. Lacking strong, competent leadership for far too many years, NARGS is in jeopardy of disappearing right before our eyes. Unless it can reestablish its relevance to those it purports to serve, its diminishment will continue unabated.

Our last issue of the year, which ought to get to the printer about November 23rd, will focus on preparing our gardens for winter. If you have any techniques you'd like to share, please send them to me. They don't have to be comprehensive, or even particularly "special." Just tell us all how you get your gardens ready for the months of snow and cold – it's always worthwhile for us to share information with fellow rock gardeners.

See you on the 7th!

PFG

Rock Gardens OF THE Future

GREAT PLANTS + FABULOUS DESIGN

NARGS **EASTERN WINTER STUDY WEEKEND** 3.19 -3.21

Join us March 19-21, 2010 in Devens, Massachusetts to hear about terrific new plants for your garden; learn design principles you can use to make your garden more interesting and pleasing; buy great plants; enter a plant show; and mingle with other obsessed gardeners. Devens, Massachusetts is the new town on the site of the former Fort Devens, 30 miles west of Boston.

For further information, contact Registrar Vivien Bouffard ewswregistration@msn.com or Chair Rosemary Monahan (rosemonahan@comcast.net or 978-568-1780).

Hotel Information: The meeting will be held at the Marriott Spring Hill Suites/Devens Common Center in Devens, Massachusetts. For rooms, register directly with the hotel: 1-888-287-9400 or on-line at :

http://cwp.marriott.com/bossd/argc/

Be sure to mention that you're registering as part of the block reserved for the New England Chapter of the North American Rock Garden Society. Conference rates are $119 plus tax. Reservations must be made by February 18, 2010. For information on how to reach the hotel and conference center by shuttle or transit, contact Registrar or Chair.

Positions of Responsibility

Chairperson – Cliff Desch
Vice-Chairperson – Robin Magowan
Secretary – Carol Hanby
Treasurer – Pamela Johnson
Archivist – James Fichter
Audio Visual Chairperson - Joe Berman
Greeter – Open
Independent Director – Peter F. George
Newsletter Editor – Peter F. George
petergeorge@verizon.net
Meeting Recorder – Elaine Chittenden
Plant Sale Chairperson – Bob Siegel
Program Chairperson – Elisabeth Zander
Proofreader – Martin Aisenberg
Refreshments Chairperson – Joyce Hemingson
Speaker Housing – Anne Spiegel

Published 10 times per year (Feb. through Nov.) by the Berkshire Chapter NARGS

Membership is open to all members of NARGS
Dues $10.00 single, $12.50 Family

Payable to the Treasurer
Pamela Johnson
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Deadline for Next Newsletter is November 20, 2009

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