Newsletter

North American Rock Garden Society
Berkshire Chapter August 2010

Next Meeting

Saturday, Sept 4 at 10:30 AM

The BIG Plant Sale

Berkshire Botanical Garden Exhibit Hall
BBG is located 2 miles west of Stockbridge MA at the junction of Routes 102 & 183

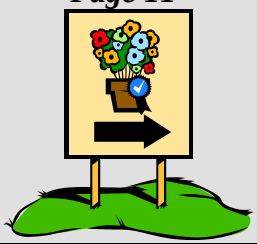
AM – **Barrie Porteous – Unusual and Underused Perennials**

Lunch ---BYO

We welcome dessert contributions. Lunch will be followed by **THE BIG PLANT SALE**

PLEASE make every effort to bring as many plants as possible. As well, bring along the Primulaceae seedlings that many of us started this past spring.

For a brief bio of Barrie Porteous, go to Page 11

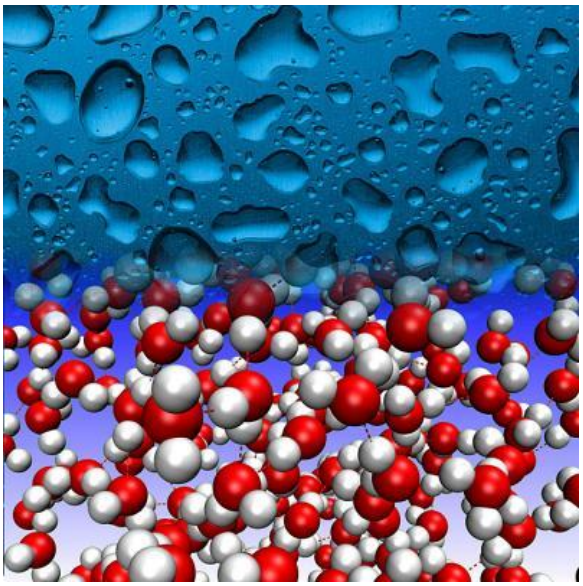


Chairman's Message:

Water, the most abundant liquid on Earth covering ¾ of our planet's surface, is currently in short supply in Massachusetts. Year-to-date we are about 8+ inches below average rainfall. It is quite obvious while walking through the garden that the plants are stressed due to the lack of rain. In living systems all cells are 70-90% water, including human cells. The properties of water account for its universal importance to cells. When compared to protein, fat and carbohydrate, water is a small molecule composed of one atom of oxygen chemically bonded (covalent) to two atoms of hydrogen. Even though the water molecule is electrically neutral, there is a non-uniform (or non-symmetrical) distribution of the negatively charged electrons and the positively charged protons. The oxygen region of the molecule has more electrons making it relatively negative compared to the region of each hydrogen where there are fewer electrons. The area of each hydrogen atom is thus considered to be relatively positive. Molecules of non-uniform distribution of electrons (and protons) are said to be polar. Most molecules in

biological systems, except fats and fat-soluble vitamins (e.g., A, D, E) and hormones (e.g., testosterone, estrogen), are polar. Polar substances are soluble in polar liquids and there are more substances soluble in water than in any other liquid. Chemistry of living cells occurs in a liquid phase. Water provides for the greatest diversity of chemical reactions so characteristic of life.

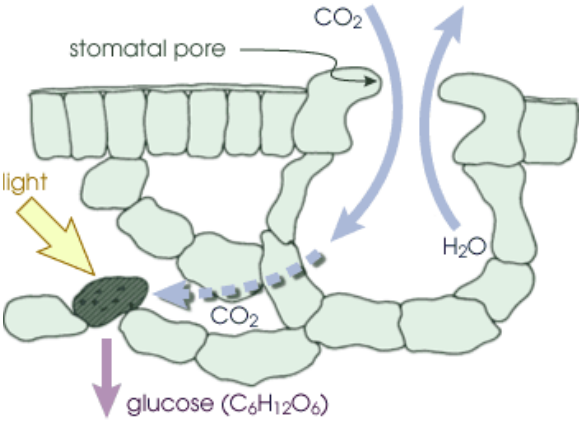
Water molecules are cohesive. Because opposite charges are attractive, the relatively negative region of one water molecule is weakly attracted to the relatively positive regions of other water molecules. These weak bonds, known as hydrogen bonds, are easily broken. Their strength lies in numbers. Each water molecule forms numerous hydrogen bonds with its immediate neighbors creating a shell of other water molecules around it. This makes it difficult (energetically speaking) to pull water molecules apart from each other. Thus, water is highly cohesive.



Water molecules are adhesive. Water is essential for photosynthesis and most plants obtain it via their root system in the soil. Distribution and movement of water in the soil is facilitated by particles of polar minerals with quartz sand grains being the most common. Quartz, chemically the same as glass, is made up of one atom of silicon bonded (covalent) to two atoms of oxygen and is a polar molecule. Polar water molecules form hydrogen bonds with polar sand grains (adhesion) and the water will move through the soil from one sand grain to another pulling other water molecules (cohesion) along with it. This phenomenon is known as capillarity. Movement of water in the "plumbing" of a plant relies on these properties. The water transporting tissue of plants, the xylem, is composed of dead cells when functional. Their cell walls are primarily composed of cellulose, a polar carbohydrate. Xylem is continuous throughout the plant and is filled with water. Thus, there is a continuous column of water in the plant. In addition to water and sunlight, carbon dioxide (also polar) is essential for photosynthesis. Because photosynthesis takes place in cells within the interior of the leaves (the mesophyll) and the leaf surface is sealed with a thin waxy coat (the cuticle), atmospheric carbon dioxide must enter the leaf via small openings, stomata, on the underside (abaxial side). The stomata (stoma singular; from the Greek meaning mouth) are formed by pairs of cells, guard cells, which can change their shape by moving water into or out of their cytoplasm. During the daylight the guard cells take up water from their neighboring non-guard cells and change their shape so to open the stomata. At night they loose water, become flaccid and close the stomata. When open, carbon dioxide can enter the leaf and at the same time excess oxygen gas, a byproduct of the photosynthetic pathway, is released into the atmosphere. All the oxygen in our atmosphere (21%) was (and is) produced through photosynthesis by plants, algae and blue-green bacteria. The open stomata also allow for the unavoidable yet essential water loss from the leaf. Evaporation (transpiration) from the leaf allows for water movement in the plant. As the water molecules move out through the stomata they draw others behind them and because the water column in the xylem is unbroken water is pulled up the stem from the roots to the leaves. Water continues to move into the leaves following those molecules consumed in photosynthesis and those lost by transpiration. Thus, the cohesive and adhesive properties of water are requisite for plant life, and the oxygen that plants produce is essential for aerobic organisms such as one's self. Note: In addition to photosynthesis plants

also have aerobic metabolism and use some the oxygen they produce.

Water has a high specific heat, which is a measure of the amount of energy (heat) needed to raise the temperature of a substance or lower its temperature by the loss of heat. As a consequence, aquatic environments change temperature much more slowly than terrestrial environments and thus, are more stable temperature-wise. At the cellular level, the intracellular water in living cells absorbs the heat generated by chemical reactions which if not absorbed would raise the temperature to lethal levels.



In addition to water's liquid phase, it occurs as a vapor and as a solid (ice) that also have an impact on living organisms. Water has a high heat of vaporization i.e., it takes a considerable amount of energy to convert liquid water to vapor (586 calories per gram). The energy is required to break the hydrogen bonds holding the water molecules together. Thus, when water evaporates from a surface (plant leaf, human skin, dog's tongue, water holding flat roof) it absorbs heat and cools the surface. Ice is harder but less dense the liquid water and floats. This is because ice has a crystalline structure in which the water molecules occupy a larger volume than the same molecules as a liquid. If ice were of greater density than water it would sink, and ponds, streams, lakes and oceans at high latitudes would freeze solid from the bottom up in winter. Aquatic organisms could not survive in such an environment. Ice on the surface of ponds and lakes acts as an insulator preventing the body of water from freezing solid from the surface down. Also, because living cells are mostly water, when they freeze the expanding ice within causes the cell membrane to rupture thus, killing the cells. The cooling system in your automobile engine in our winters would

experience the same fate without antifreeze. And Ted Williams will probably not be brought back to life. Some organisms in our area survive winter (e.g., wood frogs) by reducing intracellular water and synthesizing antifreeze agents thereby preventing ice crystal formation.
So let us be thankful for water's little quirk that the bond-angle between the oxygen and the two hydrogen atoms is 104.5 degrees of arc (non-symmetrical) and not 180 degrees (symmetrical). If the latter, water would be non-polar and life, including plants and the gardeners who grow them, would not be possible.

Cliff Desch

Norwegian Wood

Part 1

Text and Photographs by Trond Høy

I can't say exactly when my interest in gardens and gardening first developed. When I was a kid my family lived in Oslo, Norway in an ordinary flat with no garden but with huge communal lawns and a rose bed outside. I tried to grow sunflowers hidden among the roses, but the neighbor kids and the caretaker always found out and destroyed them. Fortunately my grandparents had a small garden, quite ordinary, but with some flowers and shrubs and a plum tree that never bore fruit. In the

spring my grandma sent me out to pick *Viola odorata* flowers for decoration in our house.

Every summer we spent two months at my grandparents' summerhouse by the south east coast, on a small island named Oterøy, outside the village of Kragerø. There they grew fruits and berries and some vegetables. There was also a huge meadow with many wildflowers like oxeye daisy, goldenrod, loosestrife, ragged robin, red clovers. My mother and my aunts were quick to pick the flowers for decorating the house, as my grandpa always mowed the meadow as soon as he had time. He used a scythe.

Trond's Greenhouse and Shed

We children were allowed to eat cherries and unripe apples. For dessert we had strawberries and raspberries; we collected red and black currant and gooseberries for juice and jam. The garden, mostly planted with peonies and roses, and the orchard, with plums, apples, pears and cherries, were the responsibility of my grandparents, we children had our own treasure, a small «village» built of stone. The houses were about a foot square and ½ ft tall, and it had gardens planted with different stonecrops and houseleeks. We younger children learnt from our elder cousins how to tend the gardens and build new houses. Maybe my interest for gardening woke here, in «Moseby» (Moss City).

Later, as a student, I had no time for gardening. The first flat I bought had no garden either. After some years working, my wife and I moved to the west coast of Norway, midway between Bergen and Stavanger, and settled near the town of Haugesund. Here we bought a 1/2 acre property with one of the smaller Norwegian fjords (Førresfjorden) a stone's throw away. http://www.visitnorway.com/en/Stories/Norway/Fjord-Norway/Haugesund-Haugalandet/det/

Oslo and the southeast of Norway have a short but intense spring and a relatively warm (for Norway) summer. This was followed by a dry fall and a wet winter. Snow fell primarily in the hills around the city. Our favorite winter activity was cross country skiing. The snow cover usually lasted from December to March/April. In recent years there has been much less snow in the lowlands and the gardening season has been extended a couple of weeks.

Given my experience with the continental climate of Oslo and the slightly more moderate climate of the island of Oterøy (here the spring occurs a couple of weeks earlier than in Oslo and the fall lasts a couple of weeks longer) I now garden in a hyper oceanic climate with no traditional cold winters or warm summers. The impact of the North Sea and Atlantic Ocean on the climate of western Norway is profound, giving us mild and often frost free winters, and cool and cloudy summers. The westerlies bring low pressure systems with clouds and rain all year; the driest season is late spring-early summer. The locals say the difference between summer and winter is that in the summer the deciduous trees have leaves.

All of Norway benefits from the warm Gulf Stream and the North Atlantic Drift. If you look at the map you will notice that southern Norway is at the same latitude as southern Greenland. The west coast of Norway has one of the most interesting temperature anomalies in the world; the coldest month, February, has a mean temperature of 1-2C (34-36F) while the warmest summer month, August, has a mean temperature of only 14-15C (57-59F). The annual precipitation exceeds 350cm/11.5ft in many places, but is about 150cm/5ft here (the driest in Norway is 28cm/0.9 ft).

When I began to garden in my new home, I discovered that my knowledge of plants was completely inadequate. Oslo is warmer in

summer and colder in winter and drier during the year and the plants you can get at the nurseries reflected my years living there. I started with plants I knew from Oslo but soon learned that there were many plants available at west coast nurseries that I hadn't even heard of. Soon I started experimenting with foreign plants from seed as well. I also quickly learned that hardiness ratings don't tell the full story. Continental winter hardy plants tolerate very low winter temperatures but they often need hot summers to achieve full winter hardiness. Coastal plants often do not need very warm summers but can't take hard frost in winter. I have lost several plants due to lack of summer warmth.

I have always had a predilection for trees. When I got my own property I started collecting conifers. I wanted to grow as many different species as possible. Over the next few years I planted species of Cedrus, Tsuga, Taxus, Chamaecyparis, Thujopsis, Sequoiadendron, Sequioa, Taxodium, Torreya, Cupressus, Cephalotaxus, Sciadopitys, Cryptomeria, Cunninghamia, Podocarpus, to name a few. Most of them have done well and now many are getting so tall that I have to use my chain saw to cut them down! As you might imagine, I now have a lot of firewood.

House Viewed from The South

A few years later, I started collecting Rhododendrons, intending to obtain and grow all of the species and hybrids available in Norway. I soon discovered that that was an impossible task! Rhododendrons thrive here on the west coast and there is a greater diversity here than in Oslo. Recently there has been an explosion in the number, variety and availability of Rhododendrons in particular. At this time I have about 300; some I bought and some have been raised from seed. I have many species and a lot of unknown crosses. In the beginning I tried to keep a file containing the essential information on all my plants. I used cards and a shoe box to store the cards. After a few years I got worn out by the filing and stopped, and have never started again. Therefore I no longer have a complete inventory of my plants but I usually know the species, or at least the genus, if not the cultivar name when I see a plant.

Other broad-leaved evergreen shrubs and trees are also of my liking. Some Prunus species, Hebe, Ilex, Buxus, Aucuba and Quecus ilex do quite well here so I plant them together with the Rhododendrons. Small, deciduous maples also fit the scheme.

I have also amassed a large number of perennials, especially woodland types, which I have planted in my conifer and rhododendron forest. Some of my favorite genera are:
Anemone, Corydalis, Epimedium, Vancouveria, Diphylleia, Glaucidium, Helleborus, Hylomecon, Stylophorum, Thalictrum, Podophyllum, Dicentra, Arisaema, Cardamine, Asarum, and many, many more! I try to fill my woodland with interesting plants but due to the moist climate I have slugs and snails. I have lost more plants to attack by mollusks than by frost! The culprits seem to know which plants are the more expensive or rare. They never devour the commoner ones!

Shed Rood With Rock Garden

Although I like rock plants very much I have few suitable sites for them. Therefore I started making a rock bed on the roof of the shed. The shed is built into a slope so I can reach some of the roof without a ladder. There I have planted Sedums, Lewisias, Saxifragas, Delospermas, Primulas and others. The main problem is our wet winters. Many high altitude plants dislike winter wet and often simply rot. The plants you can buy at nearby nurseries usually tolerate the winters, but I can't find all plants I want to try in nearby nurseries, so I often buy plants on the Internet from specialists both in Norway and abroad. I have even bought plants from the USA (Heronswood). I try to select species I believe will tolerate the winter weather, but often I buy plants because they are interesting in some special way. I also sow lots of seeds – a couple of hundred each year. Fortunately not all germinate! So, one of my biggest problems is that I am simply unable to focus on one type of plant!

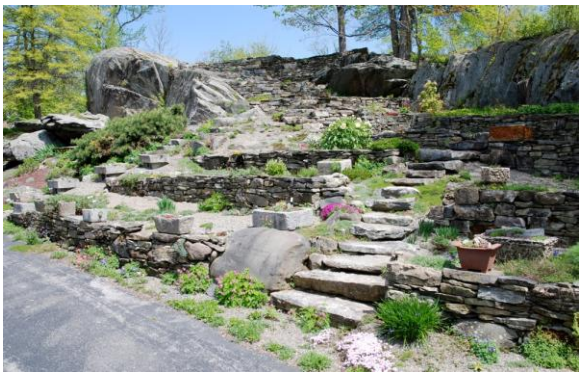
NARGS SPEAKER TOUR MAY 2010: PART ONE

Cliff Booker – Text and Photographs
Editor's Note: All the photographs are of Anne Spiegel's Garden

Speaker hospitality is not easy to quantify or qualify. It doesn't seem appropriate or appreciative to issue star ratings to private houses and/or volunteer hosts ... any generous offers of bed and board and travel assistance should be gratefully received for what they are and relished and recognized in every way possible. That said, there should always be a way to honor the very best in any field - and speaker hospitality must not be excluded from this debate.

Therefore, it is our pleasant duty to confirm that the North America people (and members of NARGS Chapters in particular) make, without doubt, the finest hosts ever to turn down a duvet; bring forth a breakfast or cosset their all-consuming guests to within an inch of their lives.

We toured your beautiful country in late April - early May this year and were so very fortunate to stay in the homes of (and be fed and ferried about by) some of the nicest and most generous people it has ever been our privilege to meet.
We would like to put on record our whole-hearted thanks to you all for the warmth of your welcome; the magnificence of your hospitality and the friendships you have created, both in our hearts and in our address books.



We were originally intending to honor a long-standing agreement with Anne Spiegel to visit the Berkshire Chapter and do a presentation or three before enjoying a well-earned holiday in the Hudson Valley and beyond, but an unforeseen illness for John Watson and a long telephone call from our great friend and tour organizer; Alan Grainger raised the possibility of Cliff standing in at quite short notice for John on his pre-scheduled and much anticipated Spring Speaker's Tour of Eastern Chapters.

Though this wouldn't be our first visit to the United States it was to be my first speaking engagement outside the U.K. and nerves had to be overcome before acceptance of such a prestigious invitation was confirmed. To visit such diverse and widespread Chapters would be daunting enough, but to try to fill in for such a

renowned speaker as John Watson was another thing altogether.

Any remaining thoughts of a relaxing break also seemed shattered when the final itinerary revealed twelve flights and eight lectures to six Chapters in just over three weeks, but this apparently hectic schedule was so well-organized and included such luxurious accommodation that we never once felt fatigued or under stress of any kind. Our thanks must go to Alan and to Vice-President and Tour Organizer; Maria Galletti for arranging such a tremendous tour.

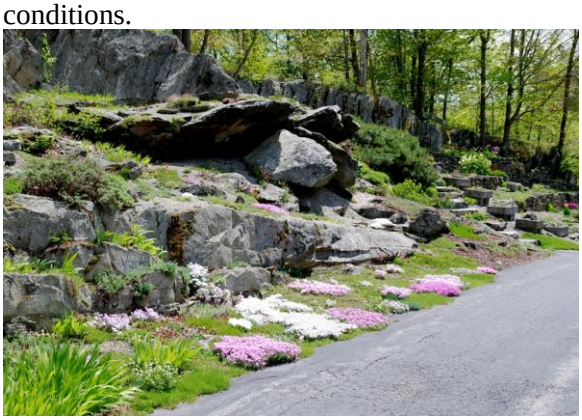
We flew out of Manchester, England (the nearest airport to our home high up on the Lancashire moors, near Rochdale) on 29th April to Newburgh, New York State, via the huge international airport at Philadelphia. Anne Spiegel's delightful husband Joe met us at the airport and drove us through gorgeous New England scenery to their incredible home in Poughkeepsie. I say incredible but that is how it appeared as we drove up their long drive and turned a corner to be greeted by arguably the most amazing private garden it has been my privilege to encounter.

They say; 'Timing is everything', but we are certain that this magnificent garden would have looked just as appealing if the red, carmine, pink, white and candy colored Western Phloxes hadn't been gushing like tumultuous mountain streams through the detritus at the base of those enormously imposing cliffs and impressively placed boulders. The spectacle would surely have been just as complete if the vast screes, numerous troughs and expansive dry stone beds weren't bedecked with countless alpine gems of every color and persuasion - and the vast array of beautifully and sympathetically constructed stone steps (mere stairways to heaven) would have been just as impressive even if they weren't surrounded and edged by mats, buns and cushions of the rarest and finest persuasion.

These static escalators of lichen covered rock rose ever upwards, drawing the admiring visitor forward, enticing the avid, demoralizing the vertiginous and challenging the aged or asthmatic.

At each successive ridge new wonders were unveiled, stone seats surrounded by semps; sand beds successfully sited; sax's in shale, and sumptuous scenes to seduce and stimulate the senses.

The spectacle was, of course, enhanced by the glorious sunshine of an unseasonably warm spring, but no amount of light could do justice to the recently constructed and planted crevice beds and the snaking, perfectly formed dry stone walls that reveal themselves as one climbs to the crest of the premier escarpment. Deep, but painfully thin fissures across the faces and tops of the cliffs have been painstakingly cleared (after hours of meticulous preparation) of weed, duff, roots and bramble and each of these cracks has been coerced into accepting the long delving roots of a tiny high mountain plant. A task in itself of course, but made even more onerous by the impending heat and dryness of a New York summer. So many plants, so little water and so little time to irrigate in a garden of this magnitude and intensity. Dryland plants do best, they have to ... moisture loving plants cannot and do not tolerate these arid, tortuous conditions.



Anne doesn't have the time, the unlimited water or the inclination to molly-coddle her high-minded tenants, but that doesn't mean she

doesn't get to know them well or try to cater to their individual needs to the best of her abilities. They all get suitable 'beds' and locations for their (hopefully) lengthy stays and they are watered in a number of times after planting but that is as far as this hostess (and her water supply) can afford to go, they must then survive or perish in this harsh environment - and survive they surely do - Anne's crevice gardens are dotted with alpine gems from around the world, Astragalus and Oxytropis from the States; Physoplexis and gentians from the Dolomites; dianthus and sax's from the Alps.

This, of course, would be sufficient for most alpine obsessed gardeners but not dear Anne ... her horticultural skills have created a beautiful streamside garden, shade and woodland beds overflowing with ferns, iris and Jeffersonias, magnificent homemade troughs of every imaginable size and shape, and landscape management of the highest order.

Some may say that the Spiegels were very fortunate to find such quantities of stone on their premises, others will never understand the foresight, the dedication and the sheer exertion and time required to create even one tiny area of this truly epic garden.

Entire cliffs had to be excavated - enormous boulders and rocks had to be cajoled down (and sometimes up) precipitous slopes - tons and tons (and tons) of soil, timber, weeds, sand, grit and stone had to be removed or introduced into the garden and years of back-breaking toil went into creating this incredible (and I don't use the word lightly) monument to one rock gardener's dream. And, like all really good gardens, this one will never be finished or will never even reach a stage where the head gardener will down trowel (or pick-axe or breaking-bar or winch and rope) and sit in the sun admiring her amazing alpine accomplishments.

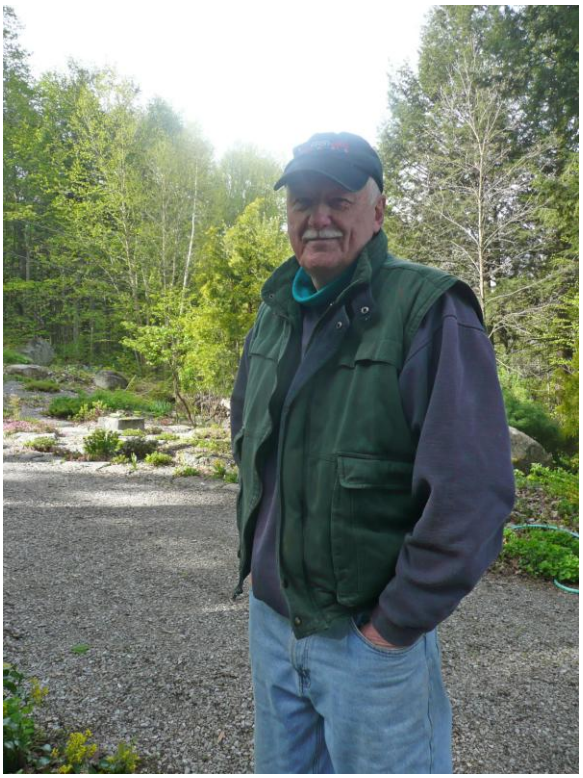
Anne is out of bed at first light and has either planted, carried, weeded, scraped, dug, shifted, barrowed or created her way through to dusk with barely a break - she is, like the amazing Ev Whittemore of Penrose, North Carolina who we will meet later in this report, a truly inspirational alpine enthusiast, rock gardener and horticulturalist.

We will meet Anne and Joe again at the end of this extended report, as we were fortunate enough to spend nearly a week with them at the conclusion of our tour, but there are three weeks of adventures to describe before we reach that point.

2010 BNARGS Programs

September 4
AM: **Barrie Porteous**, *Unusual and Underused Perennials*
PM – **The Big Plant Sale**
October 9
AM: **Andy Brand**, Broken Arrow Nursery, *New Dwarf Conifers & Japanese Maples*
PM: **Eric Breed** (from Dutch Rock Garden Society), *Going Wild for Bulbs*
November 6 - **Annual Lunch**
Sydney Eddison, author of Gardening for a Lifetime: *How to Garden Wiser As You Grow Older*

Our September Speaker



Barrie Porteous was born in Edinburgh, Scotland and came to Canada when he was 23. He has an Honors degree in Applied Chemistry but spent most of his working career as the Canadian Marketing Manager for Sun Chemical, the world's largest supplier of printing inks. Over the last 25 years or so he has led botanical expeditions throughout the western US as well as to the European Alps and the Pyrenees.

He lives in Toronto but his main garden is a 2 hour drive north in a region called Muskoka. There, he gardens on a 1 acre lot which borders on a lake. There are no lawns, only gardens and paths. He also has a 2 ton tufa bed along with numerous rock gardens and around 15 troughs, most of which are large, the biggest being 8' long, 5' wide, 42" high with walls 10" thick.
In spite of gardening in a Zone 3b/4a, he grows rhododendrons, azaleas and heathers. He is especially keen on daphnes, peonies, primulas, and trilliums.

He retired in 2006 and now can garden fulltime.

The NARGS National Meeting

Text by Lynn and Alex Kenner and photos by Juliet Yli-Mattila

At the request of our editor, we have written a short synopsis of the last NARGS annual meeting in Colorado. Our comments are general, lacking a lot of detail, since we focused on enjoying our experience rather than taking notes.

Sedum rhodanthum – Cottonwood Pass July 14

The meeting started in Denver on Sunday with local gardens open to us. This was followed with a visit to the Denver Botanical Garden including tours of the rock/alpine gardens guided by Panayoti Kelaidis ("PK") and staff.

Since the last time we visited the garden about 10 years ago, the changes and renovations were awesome; the rock gardens were expanded and greatly improved. Making the visit even more memorable, the "Moore" exhibit was in progress,

Sunday's dinner was a tented affair in the center of the DBG followed by talks in the DBG auditorium,

Monday we drove to Salida for registration, followed by a plant sale, dinner and additional talks.

Tuesday started with our first hike on Mt. Sherman. This hike was led by Panayoti Kelaidis, with help from Bill Adams, proprietor of Sunscapes Nursery. Having two such knowledgeable people as guides was enhanced by the bantering going on between these old and dear friends. On the trail we saw *Claytonia megarhiza*, *Gentiana prostrata*, *Oenothera fremontii*, *Campanula uniflora* and then back to Salida for more plants, dinner and speakers.

Caltha leptosepala & *Primula parryi*
Cottonwood Pass July 14

Wednesday was Weston Pass and again our group was led by PK with the help of Ted Kipping, landscape architect and arborist who is an amateur geologist. Ted was able to explain some of the amazing mineral deposits underfoot and how they were formed. On this hike we saw *Eritrichium nanum, Silene acaulis, Phlox condensata* and *Primula parryi*.

On our return trip we were given a choice of stopping by a field of Penstemon or a local "bunnery". Our group, not knowing what a bunnery was (special Colorado pastry perhaps?), opted for the bunnery. What we got was a field with a large number of an indigenous "bun" plant. We were told that the plant, *Astragalus kentrophyta ssp, implexus*, grows elsewhere but this particular form near Fairplay, CO, is by far the most congested form Panayoti has ever seen and has proven impossible to grow anywhere else, by either him or others. The field also contained a large number of Penstemons and some lovely *Oenothera coronopifolia*, a plant we had never seen before. When I asked if it was commercially available, I was politely told, "you don't want it because it's a real garden thug".

Saxifraga flagellaris, var. crandallii
Cottonwood Pass July 14

Back to Salida for plant sales, dinner, speakers and NARG awards.

The speakers were excellent and knew their subject matter. They included Zdenek Zvolánek of the Czech Republic, Wiert Nieuman of the Utrecht Botanic Gardens, Mike Kintgen, the new curator of the DBG rock garden, among others. In addition, a number of local members told us about their gardening successes and failures in various areas of Colorado. Panayoti functioned as master of ceremonies and kept things moving along, as he does so well.

Cerastium arvense – Monarch Pass July 13

The convention was smaller than most, making it easier to meet and mingle. The small size made for the use of small vans to our trail heads, which gave us another opportunity to get to know people. An excellent dinner was provided every evening as well as lunch on the day trips, making the event very reasonable, and again, providing many opportunities for people to socialize.

The Rocky Mountain Chapter is to be complemented on the seamless execution of this most enjoyable national convention.

Meeting Notes for August 14, 2010

Cliff Desch opened the meeting with announcements and a welcome for new and returning members, and guests. Elliott Jessen had surgery recently when his appendix ruptured and is now recovering at home. Send him a get well card to: 337 Riverton Road, Riverton, CT 06065. Pam Johnson had some very good news: our chapter has been gifted $7,350 by the heirs of Geoffrey Charlesworth's estate. Pam commented "We were surprised and delighted to receive generous donations in honor of Geoffrey Charlesworth from his sisters, Margaret and Olive and his niece, Nancy. These gifts will ensure that we can maintain the high quality of speakers and newsletters established by Geoffrey and Norman. Yet another reason to remember and honor our dearly missed friends who gave so much to the chapter and to each of us."

After some discussion and questions, it was voted to hold our annual luncheon in November at the Red Lion Inn in Stockbridge, followed by author Sydney Eddison's slide program at the Berkshire Botanic Garden. Tom Flanigan will handle meal registrations (minimum number is 20) and there will likely be 3 entrees to choose from. More information will follow.

For Show and Tell, Elisabeth Zander brought in a fruiting stalk of *Diphylleia cymosa*, a member of the barberry family (Berberidaceae). She grows it in damp woodlands, and it wakes up late in spring but then takes off and gets tall, shading neighboring plants and rivaling Rodgersia for foliage effect. It's native to the southern U.S. and is hardy here. There are 1-2 Chinese species as well. Mark McDonough says it stays shorter, to 2 feet tall, in dry woodlands, and he has seen it 5 feet tall on the edge of a swamp in New Hampshire. The fruit is blue (bright red inside) and held on a branched, red stalk. Elisabeth also donated seed of a double pink poppy (*Papaver somniferum*), an annual that will self sow. The seeds can be saved for use in baking, also.

Peter George introduced our morning speaker from Long Island, the gregarious Bill Brown, known to many of us from past NARGS Winter Study Weekends or Annual Meetings. Bill's topic was The Bulbs of Turkey, but as he said, he included something for everyone in his slides of an Alpine Garden Society (AGS) tour to Turkey and Cyprus. He was there in March and there was still snow in the mountains, which are only a half hour away from the coast. The Cyclamen species included *C. persicum*, *C. cyprium*, and *C. graecum*, but there are 22 in all. At the Temple of Athena, *C. cyprium* grew vertically on the rock faces. There are 56 species of orchids on Cyprus, and a very curious one that looks like little pink men hanging from stalks, *Orchis italica*, can also be grown indoors and will bloom for 3-4 months in a sunny room. *Oxalis pres-capri* grows like a weed, but many

plants fall prey to goats, the lawnmowers of the wild. They are fenced out of archeological sites, however, so the botanizing is very good inside those enclosures. *Tulipa cyprica* with bright red flowers used to grow in fields by the millions, but the flowers were sold for bouquets and the bulbs over-collected. Bill told the story of *Mandragora officinale* (see above), a hallucinogenic plant in the nightshade family (Solanaceae). Its woody roots resemble a person and are supposed to scream when pulled out of the ground and cause all who hear to die within 24 hours. Arrowhead Alpines in Michigan is a source. This nursery also offers *Iris unguicularis*, a rhizomatous iris Bill saw growing at 600 meters. Known as the Algerian Iris, it ranges to Israel and Jordan. Bill grows it and has blooms in January to March, with peak bloom at the end of February. Other irises seen on the trip: purplish *Iris creticum*, and deep purple *Iris planiflora*, and *Gynandiris sisyrinchium*, which used to be *Iris sisyrinchium*. The region is also known for bulbs such as Colchicum, Crocus and Sternbergia. Colchicums bloom from fall to spring and have 6 stamens, while the similar-looking crocuses have 3 stamens. Bill said the AGS tours are "absolutely great" and also recommended Greentours.

A plant sale and auction was held, with donations of Colchicum bulbs from David Burdick, *Epimedium* 'Harold Epstein' and *E. grandiflorum* 'Silver Queen' from Joe Strauch, a yellow/pink Cymbidium orchid from John Spain. Thanks to Lori Chips for bringing plants from Oliver's Nursery.

As an introduction for our afternoon program, Lori Chips remarked that when she visited Peter George's garden last year, she was impressed by his very catholic tastes and the way he accommodates plants to microclimates. Peter began by saying his talk should be called

Gentiana acaulis – photo by Mark McDonough

"Evolution of My Gardens, or, How My Gardens Prove that There is no such Thing as Intelligent Design." Peter's introduction to BNARGS began at an annual luncheon, when he happened to sit at the same table as Norman Singer and Geoffrey Charlesworth. A member since 1996, he grows about a third of his plants from seed and buys an equal number from vendors, and also from our plant sales. His gardens surround a 1830s Federal -style house and are named for their locations, such as west, kitchen, driveway, porch, barn, and septic (actually this one is where the septic field used to be located). A neighbor and former member, Larry Rue, helped Peter get started by backfilling a side yard with trap rock. More recent beds are 90% gravel, 10% soil; one has 4-5 feet of gravel with larger rocks on top to give it elevation. Plants grown from seed include: *Talinum brevifolium* (Alplains, 2006) and *Iberis taurica* (looks like nonpareils in bud, then opens white, pink and purple). Other favorite plants: *Daphne cneorum 'Porteus'* (from Harvey Wrightman, an A+ plant, wide but short, highly fragrant); Saxifraga, *Asperula gussonii* (almost 2 feet wide after 7 years), *Androsace villosa* (white with pink eye; give ½ day of shade), *Anemone sylvestris* (grows in full sun and has lots of flowers), *Calyptridium umbellatum* (pink flowers), Cistanthe (Alan Bradshaw seed, very variable), Salix (from Maria Galetti, plant too vigorous now), *Eriogonum ovalifolium*, *Arenaria tetraquetra*, *Delosperma nubigeanum* (from H&H Botanicals, chrome yellow), *Lewisia tweedyi* (from Richard May 7 years ago and now

has a seedling), *Astragalus zionis* (has lived for

Allium cyathophorum v. farreri – photo by Peter George

3 winters), *Allium cyathophorum v. farreri* (dark purple, hanging heads last 3 weeks at end of May, seeds around), *Phlox speciosa* (Alan Bradshaw seed), *Gentiana acaulis* (from Lori Chips, a good clone for flowers), *Paeonia veitchii* (from Ellen Hornig, many rose pink flowers), *Erigeron scopulinus*, *Penstemon barbatus* (hummingbirds fight over the flowers), *Penstemon hallii*, *Coluteocarpus vesicaria*, *Orostachys iwarenge* (from John Spain, looks like an alien landscape in late August to Sept. when it blooms), and *Androsace sempervivoides*. Thanks to Peter for showing us how his thinking, his gardens, and even individual plants, have evolved over time! Peter gave special recognition to Mark McDonough for taking the photos of his garden. Mark is also involved in the revamped NARGS web site, www.nargs.org. There is now a forum link where you can post and view photos. No password is needed, but you can register.

Joyce Hemingson

Chinese Gentians – Part 2

Text by Harvey Wrightman – photos by Esther Wrightman

A hint of the beauty that section *ornatae* holds was offered in the description and photo of *Gentiana futtereri* - the large flowers coming in all shades of blue with prominent striping will rivet the attention of any garden visitor – blue has that ability to bewitch the viewer. The recent collections from Halda, Jurasek, Pavelka and Holubec have provided over 100 separate collections of ~ 40 different species. It's a daunting challenge to grow all of these, so some selection is necessary. However, like any obsession, the more I grew these, the more I wanted to grow them all. It is a unique opportunity we have, right now. Given the rigors of seed collecting, a bounty such as this is rare. As Halda cogently said to me last year, "Keep these. You never know when they are available again." So, we value them all, and hope to make selections that will be worthwhile for the garden. The lack of lime sensitivity is perhaps the best characteristic seen so far. This important, for as Wilkie noted in, "Gentians" (published in 1935), " …*G. farreri* is a good, hardy species and will flourish in a good garden soil free from lime. During the growing season it likes plenty of moisture below, and at all times open exposure and sunshine." - basically very good advice as to culture of gentians – rich soil and adequate moisture. The part about "lime free soil" we can now discard. Halda related once how he brought back some plants of *Gentiana grandiflora* from Siberia, rather rare in cultivation even for the Czechs. His mother, who insisted on fertilizing all of her gardens with rabbit manure, asked for a plant. He demurred and testily she said, "Give it to me and I will grow it." Of course he relented, and indeed, *Gentiana grandiflora* did thrive in her garden. So, the following 3 will enjoy the richer soils of ordinary gardens. I would add that from what I have seen of their growth habits, they will also appreciate an association with a low mat such as *Silene acaulis* or, what I favor more, *Gypsophila aretiodes 'caucasica'*. You will find that the adventitious shoots will hide in the protection of the mat. Photos in the wild, from China, show these gentians growing in meadow conditions. Halda describes flowering times of August – October, a rather broad season if you think about it. Of course what happens is the actual timing of the season in the wild, and now in the garden. This year may have been a bit more advanced than usual, but it seems that these gentians will bloom in mid – late summer; that is, from the limited number I have seen so far. I expect that

more variation in flowering season will occur as we have more experience.

Gentiana lawrencei - A larger plant, with stems reaching to over 20 cm. The leaves are narrow and rather long (to 4 cm, dark green and tightly sheathing the stem. Flowers are found rising at the end of these branches, always single, but prominent. Total size will be ~ 5 cm long. Corolla will be greenish at its base, with 5 spreading bands of yellow and white and

Gentiana lawrencei

interspersed with light blue. The lobes vary from light to dark blue. This is a wide ranging species from Sichuan,Yunnan and Gansu to Tibet in the northwest. Of course it varies a lot and can be confused with similar species in the section; i.e., *G. helophila* and *G. sino-ornata*. Plants named *G. farreri* are now considered to be part of this complex under *G. lawrencei.* Of course these new collections present the possibility of new selections and hybrids that are lime tolerant

Gentiana sino-ornata – There are only a few collections of *G. sino-ornata and* I was hesitant to try them as the "traditional literature" states its aversion to limestone derived soils. One collection that caught my eye was from Jurasek and named only as an uncertain form of *G. sino-ornata*, but it was from Taziba, Sichuan at 4800 m. I presumed this was a limestone area, so, per the usual method, I put some SRC (Spanish River Carbonatite a complex mineral with a calcite content), in the mix and gave the Josef Halda blessing, "Grow or die." – and grow they did. These plants are developing and so far resemble *G. sino-ornata.* They will be put to the garden for trial and selection. The leaves are very dark green, rather leathery, linear/lanceolate with a pointed apex. They are first year only, so no flowers yet. Classic, selected specimens have huge azure blue trumpets, easily reaching 6 cm. long.

Gentian veitchiorum – Named for Messrs.Veitch, Nurserymen, this is a plant of sub-alpine to alpine meadows. A particularly good photo is on Pavelka's website www.pavelkaalpines.cz Go to "China, 2008" and click on page 5. There are shots of *G. veitchiorum* in different locations. One shows it growing with in a huge mound of *Androsace tapete* – it looks like an ant hill! The lesson being, that it wants to maintain an elevated position and growing in association with other plants is quite OK.

With a distribution going from China to Tibet and even into Bhutan and Burma, this is a plant of easy disposition – limestone soils are fine, it grows on dryish meadows, grassy moorlands and open woods. Plants that we have show no problems either in pots or in the gardens. Somewhat curiously, none of the 5 collections, including one from Halda, have the elliptic leaves that Halda describes in his monograph, they are all linear/lanceolate (also as he describes) at this point. This may only be case of

Gentiana veitchiorum

"juvenile" form. Time will tell. The plants show good, healthy substance with dark, fleshy leaves. Flowers (not yet seen) are typically dark blue and from 30 – 50 cm long.

These 3 gentians are suitable for alpine gardens, and would display especially well in a trough where I have put some of our plants. Some were seedlings barely 3 months old which were planted straight out of the greenhouse in early April of 2009. The days were not warm, and at night the temperatures fell to 20'F; but, there were no fatalities. I've always felt that plantings in early April are best, and that frost is of only incidental importance.

Nargs Seed Exchange

In order to make the NARGS Seed exchange as full and exciting an offering as possible, we need the help of all NARGS members. First, we need your seed donations. As few as five packets of desirable seed will earn you Donor privileges: an extra ten packets of seed with your order, and priority in having your order filled in January.

And what makes seed "desirable?" Well, although we are a society devoted to rock and alpine plants, which is not all that most of us grow in our gardens. So seed of a wide range of plants would be helpful: interesting perennials (not too terribly large, or rampant), native plants (especially wild-collected seed), smaller shrubs, and even the occasional rare tree. We're not interested in receiving seed of common trees, fruits/vegetables, or large tender annuals and bulbs, which will not earn Donor status.

And then we need help in packaging the donated seed - actually, re-packaging, and making lots of small packets out of the larger ones. This phase of the Seedex is done in early December, and can be completed at (or after) a Chapter meeting, in a separate group session, or on your own in the comfort of your home. Volunteer work for the Seedex also earns you Donor Status, so that you can receive the extra ten packets of seed, as well as priority in having your order fulfilled.

So, round up some friends --and, especially, new chapter members, to give them an opportunity to feel a part of the group. Chapters who have done this work for years (like Rocky Mountain and Wisconsin-Illinois) thoroughly enjoy it, and have made it into a day of socializing and fun, prizes and food, readings and chatting - not to mention the production of thousands of seed packets. Contact Joyce Fingerut if you can help. Don't forget that the Seed List will appear on our website on December 15. Go to http://www.nargs.org (Click on Seedex)

If you will need a print copy of the Seed List, contact by November 15:
Joyce Fingerut
537 Taugwonk Road
Stonington, CT 06378-1805
<alpinegarden@comcast.net>

Many thanks for your help.

Joyce

Editor's Notes: This issue is longer than usual, as that is due to both the quantity and quality of the contributions. Thanks to each of you!!
I also want to make sure that all of you take a few minutes to visit the NARGS website, www.nargs.org. I was a skeptic when the new design was first presented, but the site is terrific and getting better every week. Visit it, mill around a bit and I know you'll find something that will catch your interest.

I'm also looking forward to the next issue of the NARGS Journal. Malcolm McGregor is a gifted writer and speaker, and I suspect that his term as editor of the Journal will restore it to its rightful place as one of the touchstones of our organization. For too long there has been little to attract and keep our Chapter members in the 'big' organization, but now with the Seedex, the Journal and the website, there IS a lot of value for the money.

PFG

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